LONG & STRONG THROWERS JOURNAL JANUARY, 2006 **VOLUME 8, ISSUE 3** RYAN VIERRA

RYAN VIERRA NONE BETTER!

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On the cover: Ryan Vierra added

to his legend in 2005. (Randall J. Strossen, MILO) This page: The initial class of **NTCA Hall of** Fame Inductees. Not pictured, Randy Matson (Herb Fitzer)

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LETTER FROM THE EDITOR Joint Venture

I knew within the first two years of founding LSTJ that the same tool, the internet, that is so valuable in creating every issue, is a primary reason why many in the throws community do not subscribe. If so much is available online for free every day, why pay for a hardcopy that publishes only once a quarter?

I understand that reasoning and I'm sure I apply it in some of my purchasing decisions. That is why LSTJ strives to be all original, first-time published content. It doesn't always work that way, but I'd venture that well north of 90% of the content you read here is published for the first time anywhere. I know that I'm not going to score a news scoop over the internet regarding a May meet when I don't publish until July. So I focus on giving a closer examination of major championship competitions. And giving a little more insight on an athlete or coach than you may not read elsewhere. And then mixing in technical articles. It's kind of like Track & Field News meets People meets Popular Mechanics.

I've learned a great deal about marketing over the last eight years. I've tried a variety of promotional schemes, including giveaways, flyers, mass e-mails, advertising in various magazines, subscriber referrals, etc. Some of those ventures met with success, and others were virtually D.O.A..

I even ventured into poster production the tail end of 2004. My thinking was there are posters from most any sport, but none for track and field, and in particular, throwing. I'm not all that artistic, but I gave it a shot. Adam Nelson is our most decorated thrower and he gave his enthusiastic nod to my little daydream.

Just goes to show you that just because I think it's a good idea....

Unfortunately, the vast majority of that initial run of 1,000 still sits boxed up in my basement, yet to see the light of day. I get periodic questions about when the next poster will hit the streets. At this point, I'm not certain, but I know Adam needs to adorn a few more walls before a follow-up is published. That being said, I do want to thank all of you that ordered the first poster and inquired about future offerings.

So it was with these thoughts in mind that, although I am committed to continuing this publication until Hell freezes over, just how could I make this creative outlet a fiscal success as well as an artistic one? It doesn't take a genius to figure out that more readers means improved revenue, which means a better end product. Yes, it's great to be critically acclaimed, but how many people actually watched Allistair Cooke and Masterpiece Theatre?

Don't get me wrong. I'm not taking a full page to whine. So many of you have been with me for most of these eight years. Your notes and e-mails of encouragement are invaluable. I read them all and they are a tremendous source of motivation for me.



Glenn Thompson

Now, finally, I'll get to my point. Rob Lasorsa, President of the National Throws Coaches Association (NTCA), made me an offer in November I just couldn't refuse. In 2006 the NTCA is going to yearly dues. For \$85 per year, NTCA members will receive numerous benefits including a membership kit, tshirt, newsletters, clinic and conference discounts, and discounts on merchandise.

And there's one more benefit. A huge benefit by my way of thinking, but then again, I just might be slightly biased. That 'other' benefit is a one-year subscription to the aforementioned LSTJ. Yes, that's right, all four 2006 editions of this publication. In addition to all the other benefits, each member becomes an LSTJ subscriber.

So, you're wondering, how will all this work? Glad you asked! Rob will send me periodic lists of the NTCA membership. I will add those members to my records and ship all copies of LSTJ for the calendar year to the new member.

Now, unless you borrowed this issue, you're already an LSTJ subscriber. And if you are a coach, chances are you will become a member of the NTCA. So if you are a paid up subscriber, you're missing out on a benefit by joining the NTCA, correct?

Not at all! When a current subscriber is found on the NTCA membership role, I will extend their current subscription for another year. Or, if you wish, contact me and I will gift your 2006 subscription to another coach or athlete.

Given the \$20 value of LSTJ, discounts and free stuff, the NTCA membership is a great value.

Thanks to Rob and Mary Lasorsa for their continued support of this publication. The NTCA has a vision for unifying the throws community. I share the same vision, just in a paper and ink format.

And thanks to all of you for lending and sharing your LSTJ copies with fellow throws enthusiasts.

Hell won't be freezing over any time soon. *LSTJ*

Dominant!

By Mark Valenti

There are athletes from time to time who remind us of what is great in sport. For every Terrell Owens, there is a Pat Tillman. When I met Ryan Vierra in 1994, I was really excited to see an athlete who would not only kick the crap out of you on the field, but then sit down and answer any questions you had and go out of his way to make sure you walked away from the discussion a better athlete. He holds nothing back and he doesn't need to, because the bottom line is he could give you every secret he has and you still won't outwork him. You still won't do everything perfect. Doesn't matter who you are, you ain't Ryan Vierra.

It's always funny to be talking with other athletes in the pro ranks about techniques and training and Ryan's name will be brought up. "Well, Vierra does it this way...," someone will say. And the answer is always, "Yeah ,but that's Vierra; he's a freak."

To see Ryan, you may not see him as your typical "freak." At six feet tall and hovering around 300 lbs., he doesn't fit the "John Godina" mold of what a thrower should look like. Ryan responds by beating the tar out of guys no matter what he looks like or what shape he happens to be in. I have seen him look like he has been sleeping on a park bench and hasn't lifted in years and throw 10' farther then everyone else. And I have seen him look like he is carved from iron and then, "LOOK OUT!", because a world record is going down.

Here are some facts from his web site:

 Open 16# stone
 59'5"

 56# weight for distance
 49'2½"

 28# weight for distance
 93'½"

(N. American record)

16# hammer 156'5"

(unoffical WR)

22# hammer 121'7"

20# sheaf toss 35' (former WR)

56# weight for height (stand) 16'

Ryan has set 317 field records, 4 world records, 10 North American and American Records and 6 World Championship Records. He has placed first in 207 competitions!

Ryan has won the World Heavy Events Championships four times, and the U.S. Championships more times than I can count on both hands. How does he do it? Sit back, relax, and wonder no longer.

Long & Strong: How did you get involved in throwing?



Ryan Vierra

Ryan Vierra: It all started back in '83 when I was a sophomore in high school. I grew up on a farm in Stevinson, CA (pop. 150), raising beef cattle and doing custom hay farming. A friend of mine came over to the house and asked if I would like to join the track team with him. I asked my dad and he said as long as it didn't interfere with my work on the farm, so I said yes, and that's how, fortunately the obsession started.

LSTJ: What is your current height and body weight?

RV: 6'0", 292 lbs.

LSTJ: What college did you attend?

RV: First Modesto Jr. College where I met Bob "Coach Mac" Mackay. Then I received a scholarship to California State University Northridge (CSUN) from John Frazier (now at the University of Arizona).

LSTJ: Did you do other sports in high school and college?

RV: Yes, I went to Hilmar High School and lettered in track, football and wrestling. At Modesto I competed in track and football. At Northridge I competed in track only.

LSTJ: Can you give us some idea what your college career was like?

RV: I was extremely fortunate to have Bob Mackay as my coach as a freshman at Modesto. He's one of the most dedicated coaches I've ever met and that worked well with what I wanted to accomplish. I needed someone like that to guide me in the right direction and to give me the tools to be successful. He was also the coach that introduced me to the Highland Games in '87 to cross train for track and field. I was a multi-event conference champion during my time there.

In 1990 I received a full scholarship from CSUN. The university had just received its [NCAA] Division I status in track. They hired John Frazier that year to coach a new throws program. Frazier made a huge statement that year with a very successful program.



LSTJ: Did you ever consider continuing on in the track and field events, or did you know that the Highland Games were the direction you were going?

RV: Yes, I have always had the passion to throw in track and field and felt that I would be throwing something the rest of my life. I had some big plans in track and field, but with the lack of resources (money and a good coach), it started to look more like a hobby. In 1994 I started to broaden my focus by entering more Highland Games events and putting in the valuable time that is necessary to be good in the Games. With the added focus and determination, I was quickly finding myself on the winner's podium at every game I attended and hitting some huge PR's in the process. That was when I realized that I wanted to put all my efforts towards the Games.

LSTJ: What was it like being on the Cal State team with Marc Harisay, John Gallagher and Ken Lowther. Were you guys as dominant in track and field as you are in heavy events?

RV: First, let me clarify one thing. Lowther wasn't on the CSUN team with us. He was out of college (UTEP) at the time and was back home living in Simi Valley. He worked

out a deal with John Frazier to train with us during the 1992 season. Myself and Gallagher were roommates in early 1991 and we would eat and train together most of the time. I remember on several occasions we would get to practice at 1:00 PM and wouldn't leave until 9:00 at night. We would train together for hours and then head home and watch throwing videos until late at night. It wasn't until the fall of 1991 when Harisay joined us as our roommate. Marc came onto the scene with a very successful season at San Jose Community College and was projected to be a major asset for our team. That now makes four throwers living in our apartment, and we were all very competitive at everything we did. There were times that we almost came to blows, but things worked themselves out for the betterment of the team. All in all, I am grateful to have had that opportunity with those guys. It's a funny thought to look back and see that several of those guys have come over to the Highland Games and been successful.

LSTJ: What were your best marks?

RV: At Modesto: Shot-49'11", Discus-172'5" FR. (made Junior Nationals), hammer: 185'10", Jav-184'. At CSUN: Shot-: 58'4", Discus-167'10", Hammer-194'9" (JR.. - back injury), Unattached (years later for fun): Shot: 60'7", Discus: 183'7", Hammer: 208'3", 35# Weight: 67'10" (one handed one turn).

LSTJ: What are your PR's in the following: clean, snatch, squat, front squat, vertical jump?

RV:

vou?

Cleans	385 x 2
Snatch	265-255 x 3
Squats	640 x 2, 625 x 5
Front Squats	405 x 2
Push Jerks	405 behind neck
Jump Shrugs	660 x 2 (I focus on these a lot)

33" @ 275 lbs.

LSTJ: As a pro coming up in the 1990's, you got to see a lot of the greats before they retired. Who was the best Heavy competing at that time? Who, if anyone, inspired

RV: Good question. I was fortunate when I started that I had the opportunity in 1988 to meet and watch the late, great Keith Tice at the U.S. Championships in Santa Rosa, CA. I was inspired by his ability to make the events look so easy and effortless. Unfortunately, he passed away in a car accident in February of 1989. He set the standard in the sport and left a legacy that will be unmatched.

Since I turned pro in the mid 1990's, I have been blessed to have been in the presence of many great athletes like Paul Ferency, Jim McGoldrick, Dave Mackenzie, Brian Oldfield, Ben Plunknett, Bill Anderson, Grant Anderson, Joe Quigley, Alistair Gunn, Carl Braun and Francis Brebner. All these athletes have inspired me in one way or the other throughout my career.

LSTJ: What do you love about the Highland Games?

RV: The smell of tacky and the freshly cut grass in the morning. I love the cultural aspect of the sport, the gathering to reenact an ancient sport. I love that I can throw in several events in a day. I love everything about the Games.

LSTJ: What do you hate about the Highland Games?

RV: Nothing. How can one hate something you love to do and get paid for it?

LSTJ: When does your season start up again?

RV: I start up in a first year Pro games in Mesa, AZ in late February, so it's just around the corner. Then off to Vegas in early April and from there, the season is in full go with nearly every weekend booked with competitions and/or clinics until the end of October.

LSTJ: You have gone through some changes in the way you have trained and prepared for the Games since I first met you in the 1990's. I always like to pick your brain and see what you have been up to. I can remember two years ago you told me you hadn't trained in the weight room for several months. Now this year you seemed to have really picked up the intensity in the weight room and it paid off with some huge throws. Can you give us some insight into your philosophy regarding weight training for the Highland Games?

RV: Lift to throw, not throw to lift, that's my philosophy. I have been lifting consistently since I was 12 years old, so in 2002 I took a break from lifting for 2½ to 3 years to give my body a break. At the end of the 2004, season I set up a plan to focus on lifting seriously in preparation for the Worlds in August of 2005. What I found out was that by taking the time off and letting the body heal up, I was able to lift more weight than ever before. I hit huge PR's in the weight room, which convinced me even more that I made the right decision to let the body rest and heal up properly. To be successful in sport you must know when to layoff. Listening to your body when it's telling you that it hurts is a major part of the preparation in being successful.

My lifting starts in October and usually ends in early April when the Games start up. I use those six months in 4 week cycles. I use the four weeks on, one week off format, changing the reps/sets as needed to correspond with my strength levels. I do no lifting in season. The throwing we do in the Games is lifting. The implements are heavy and they tax the body hard.

LSTJ: Can you give us a sample week of training for yourself?

RV:

Day 1 Monday: Mid-off-season and strong 80 to 85%

Bike: 20min Snatches: 5x5

Snatch Hi-Pulls: (Off 12" blocks) 5,4,3,2,1 Hex Bar Jump Shrugs: (Off 6" blocks) 5x5

Core Crushers: 3x10 each side

Neck Pulls: 3x10 Med-Ball 3x10

Back to Back Twist 3x10

V-Ups 3x10

Fit-ball Twist: (Side to Side) 3x10 Hammer Drills w/weight 3x10 Plate twist & Stack 3 sets Side throws w/med-ball 3x10

Day 2: Tuesday 85 to 95/100%

Bike: 20min Squats 5x5 Front Squats 5x5

Stone Squats 5x5 (moderate weight)

Calf Raises 3x10

Single Leg Squats (Back leg on Bench) 3x10

Step-ups (on 12" box w/ weight) 3x10

Core Crushers 3x10 56 Drill lift 3x10 Med-Ball 3x10

Three-way leg lift 3x10 Med-Ball Sit-ups 3x10

Reverse Hypers w/ weight & hold 3x10

hammer lunges w/twist 3x10

Stretching: 20 mins.

Wednesdays Throw and drill

Day 3: Thursday

Bike: 20min

Bench Press: (Machine) 5x5 Standing Pulls (Machine) 3x10

Skull Crushers 3x10

Front Raises or Cable Pulls 3x10
Lat-Pull downs - behind neck 3x10
Seated upright Pulls w/ 45 sec. hold 3x10

DB Flys or Flys on Machine 3x10

Upright rows 3x10

Med-Ball

Reverse Hypers w/ weight 3x10 Seated Side Throws 3x10 Fit-ball (Back to Front) 3x10 Hammer twist w/ med-b 3x10 Med-ball sit-ups 3x10 Day 4: Friday

Bike: 20min
Power Cleans 5,4,3,2,1
Push Press (In Rack) 5x3
Overhead Squats 3x10
Hex Bar Dead Lifts 5,4,3,2,1
Shrugs (In Rack) 3x10
One Arm DB Snatches 3x10
Core Crushers w/ squat hold 3x10
Med-Ball
Seated Side Throws 3x10
Fit-Ball (F to B) 3x10
Roman Chair Back Raises /w weight 3x10
Fit-Ball 3x10

Saturday: Throw and drill

Sunday: Rest

Plate stack 3 sets

Stretching: 20min

LSTJ: What kind of carryover do marks in the gym have to the field? I feel, unlike track and field where you never throw anything heavier then 16 lbs., strength is much more of a factor in the Highland Games. Are there any marks in the gym that when you hit them you can say, "Okay, I hit 400 lbs. in the power clean; I know I can throw the weight this far," for example.

RV: Of course lifting plays a major part in our sport, or for that matter, all sports, but only if combined with equal amounts of discipline towards the fundamentals of throwing. The old saving goes, "Positions create power!" So, my philosophy is simple: Focusing on strength combined with focusing more on throwing fundamentals will yield big throws. So yes, lifting does carry over considerably in the Highland Games.

I have no special lift to where I can say, "Oh boy, look out I'm goin' to throw the weight far this year!" I just don't look at the iron game that way. I look at lifting more as a

mental aspect towards my throwing. Dedicating numerous hours of my life by pushing my body to the limits to achieve a goal gives me the confidence and the mental game to be successful in this sport.

LSTJ: You have really set up an ideal training facility at

your home in California. Can you tell us a little about it and how it has helped your training? Also, tell us a little about the training you do for athletes at the facility.

RV: I built this facility primarily for my use only, because I live several miles away from a gym. In the last two years I've started to train athletes in various sports. My interest in training athletes has developed itself into a passion that I have been enjoying.

Over the many years in the public gym scene, I've been limited to what lifts I could do. In most public gyms they won't allow power cleans, snatching or lifts that they feel can pose a danger, to me or others (that's in their words). They look down on getting aggressive by grunting. They also, by no means, like chalk on their pretty clean floors, so I had enough crap, and fortunately I was able to build my own facility. Now I'm able to do what I want. Last winter it was great having that accessible to me whenever I wanted, and it really showed with the success I have in my improvements in the gym and on the throwing field.

I focus primarily on three major areas: 1. Base Strength, 2. Core Strength, and 3. Explosive/Dynamic strength through several cycling phases in a 4 weeks on, 1 week off, format. After every two cycles I throw in a 1 week mini cycle of 12 sets x 2 reps with only 45 seconds rest between sets at 60% to 75% of your 1 rep max. This program of cycling has

yielded great results for me and plenty of others.

LSTJ: What do you attribute your success to? You are not the biggest or strongest guy out there but you always seem to come out on top in the big meets. What is your "secret"?

RV: There are a lot of factors that played a part in my success in this sport and the main one (mentally) would be that my Dad really pushed us kids hard on the farm. He had me lifting hay bales when I was 8 years old, and he would have us working before and after school feeding the cows and other farm duties. Physically, this made me a

stronger person at a younger age. But mentally, he would always beat us kids and say to me that I would not amount to anything and that I was a worthless loser, so those words always stand out in my mind when things get tough and when I am about to give up on something. It elevates me to another level of focus and to where I don't want to lose.



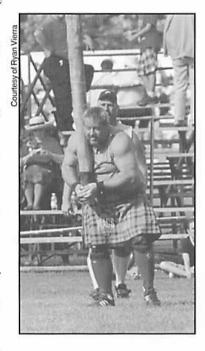
I owe a great deal to the help of Bob "Coach Mac" Mackay for introducing me to the Highland Games, and just being the right influence at the right time in my life. He took me under his wing and taught me correctly from the start at a young age, which was the leading development factor to my success today.

I also attribute my success to John Frazier. At Northridge, John offered me a full scholarship in the fall of 1990. It was there that John taught me what I come to know as the advanced fundamentals of throwing. He would drill us, and drill us more, until we were sick. I realized several years later that that was a major key to my development.

These three factors attributed to who I am today and I am thankful to ALL of them, good or bad.

LSTJ: You won the Worlds last year in arguably one of the best fields of all time. How did you stay motivated all year and most importantly how did you get yourself to peak at the right time?

RV: Motivation for me comes easy because I love to compete and I hate to lose, especially when it comes to the big Games. I had set forth a two-year plan to be in the best shape of my career for the 2005 season, and I felt that for the most part I achieved that. As for peaking, I don't necessarily focus on a so-called peak, and to be honest, I don't believe in peaking for one particular competition. I think that's all mental, because if you prepare the mind and body beforehand correctly, it will always



be ready to perform at will, at least from my experience.

LSTJ: What championship victory was most memorable for you and how did this year rank in comparison to the other ones?

RV: Winning my first World Championship in Wiapu, New Zealand, in 1996 was by far the best feeling I had in my career thus far. This last year was awesome and is hard to compare, because this was the year that I was finally healthy and had a very successful off-season leading into it. But, it's up there with my best season ever.

LSTJ: Lots of talk lately on the drug issue in the Games and in sports in general. Without getting into names, what are your thoughts on the drugs in the Highland Games issue? How bad do you think the problem is and how do we solve it?

RV: In my view, this sport does not have a drug problem. Over the past 20 years there were a few athletes that have tested positive and are now gone from the sport, so the sport has done a great job in weeding those athletes out.

LSTJ: You had a real breakthrough year this year in the caber. What did you do differently to make this one of your stronger events?

RV: I have no clue, except that I feel more confident with the way the technique has been feeling. I feel like there's no caber I can't turn right now, and that has given me loads of confidence.

LSTJ: How important is drilling in your training? Is the majority of your time spent with full throws or do you do a lot of throwing drills? Any ones you really like and feel really make a difference in your throwing?

RV: A: Drilling is vital in order for me to be successful. Drills keep my technique sharp and fluent. Without them, I would slowly fall off. I spend a good amount of time refining my technique by breaking down the movements in sections and drilling each section that I feel needs improvement. For example, if I am having trouble with my cast in the weights, I will drill that movement until I feel that I can move on to the next phase of the movement.

I like the cast and drop drill, for the weights, step-over drill for the stones, drop and pop drill for the caber.

LSTJ: What are your goals for 2006?

RV: I am planning to be in the best shape of my career and making a good run at the Worlds in Holland. I would like to have a successful showing on tour in Scotland and Ireland. The U.S. Nationals in Bethlehem, PA are always a major focus of mine and definitely the game I would be honored to win.

LSTJ: How has your off-season training been going?

RV: Great! I'm on schedule to be at the highest strength levels in my career. I was at 322 lbs. in early September '05, and I am down to 289 at the moment (12/7/05). I feel much better with the weight off and the knees like it as well. *LSTJ*

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M-F inside sales advisor Matt Ellis competing 2002

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IKSI PLACE



Fast Track To The Top

By Glenn Thompson

In the world of European throwing, Gerd Kanter's late start with the discus at the age of 17 might be comparable to an American starting in his early twenties. He was introduced to the event by his father, Jaan, in his native village of Tiduvere in western Estonia.

In the seven short years since, Kanter has ascended to elite status, capped by his silver medal at the 2005 World Championships in Helsinki. Only a clutch final throw effort from legend-in-the-making Virgilius Alekna kept Kanter from the top of the podium.

From humble beginnings in his first competition, Kanter has risen a steady arc to world success. He recently set aside some time to reflect on his path thus far, and what it will take to topple Alekna and reach his own personal goals.

Long & Strong: Tell us about your youth in Estonia? What town are you from and what is it like there? How did you become a discus thrower?

Gerd Kanter: My path to become a professional athlete is a little bit unusual. I am from a little village in western Estonia, where sport was not very popular. But my father is a fanatic and wanted me to become an athlete, even when the circumstances were difficult. We did not have time and options. The first time I tried the 1.5kg discus I was 16 years old. My first competition result was 31.95m and got me third place. Defeat made me angry, so I got stuck on the discus.

The summer of 2000 I met Raul Rebane, a former well-known Estonian TV sports reporter. He saw something in

me and built up a team around me, whom I am working with until now. Vesteinn Hafsteinsson became my coach in December, 2000. The assistant coach is Uno Ojand from Estonia. We have gotten a lot of help from two Estonian specialists who have dedicated a lot of their time. Mihkel Zilmer consults us in nutrition, and Aadu Krevald is dedicated to studies of throwing biomechanics, and his methodical advice has helped us to avoid lots of technical mistakes.

The first years were financially difficult. I had my first winter camp in 2002. All the team members believed in my abilities, and that was a big

support. Systematic and exact planned trainings are guaranteed progression every year. We all believe that there are lots of unused possibilities for improvement in sports.

LSTJ: How did you first become involved with throwing? Was the discus always your favorite?

GK: Estonia is a little Nordic country with a population of 1.4 million. Occupations and wars are part of our past. When we became independent again in 1991, we were very poor. The average salary was only around 20 dollars per month. Now we are developing very fast and Estonia has become a totally normal European country. Some things (like info technology) are ascending close to the top of the world. Young people see their options and are very motivated to work hard.

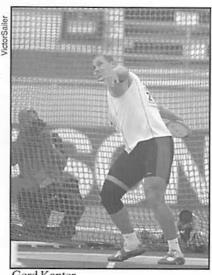
Sport is very important to Estonia and it seems unbelievable that Estonia has won over 60 medals in the Olympic Games. If we would compare populations of Estonia and New York in proportion, it would mean over 600 medals for New York. The popular sports are basketball, track and field, cross-country skiing and cycling.

As a matter of fact, we have an unbelievable situation in discus throwing. We have the bronze medal winner, Aleksander Tammert, from the Olympic Games of Athens. I won the silver medal at the [2005] World Championships in Helsinki. My training partner Märt Israel is one of the best in Europe under 23 years old, with a 63.17m. And 18 year-old Margus Hunt is the Junior European champion. Not bad for a small country.

LSTJ: How did you come to be a member of the Team75-plus club?

GK: In the fall of 2001 my PR was 56.78m. I made a proposal to my team to create Team 70(m). That seemed a totally enormous result to me. Everybody was laughing at us, and saying try to do 60m first, but you see, it didn't take more than four years.

So I never BECAME a member of Team 75 plus; I was one of the charter members. In 2002 (I was doing over 63 meters) one of my supporting members, Mihkel Zilmer, professor at the University of Tartu, was saying Team 70 is the wrong idea. The ultimate goal



Gerd Kanter

has to be enormously far and from that point of view 70m was not the result to dream of, because almost 20 throwers had already done it. The ultimate goal has to be the best, and such that no one had done before. 75m is just such a number. In 2003 when I started to train with Danish shot putter Joachim Olsen, we came up with idea to establish Team 75 Plus, which expresses our maximum goals. At Joachim's case it is 75 feet. That is not quite the world record; that's why we added Plus to 75.

We know that such a maximum outlook can look funny, but to be second in the sport can not be a goal. At least not for us

LSTJ: Did you have offers to come to the U.S. and throw for an American university? Assuming that you did, why did you choose not to do so?

GK: During the time when other people got invitations to study in U.S., my results were so weak that nobody was interested on me. Actually, there was not much interest from Estonian coaches either. In 2000 I got an offer through Gabor Mate, whose coach was trying to recruit me, but by that time I already had my own team and I made a choice to stay in Estonia. I never regretted that choice, even if there are perfect training conditions in San Diego. But conditions only are not enough to throw far.

LSTJ: What is your height, weight and wingspan?

GK: I am an average size discus thrower (height-196 cm (6'5"), weight-120 kg. (264 lbs.), and arm span-207 cm (6'9\%").

LSTJ: Can you tell us some of your lifting bests in the major lifts?

GK: In lifting I can not say that I am strong:

Clean- 170 kg Bench- 195 kg Snatch- 117.5 kg Squats- 3 x 250 kg

LSTJ: How rewarding was your Estonian record set at UCSD on April 30, 2004? Were you expecting a record?

GK: The 70 meters was very important to me because one of my big goals became real. Actually, I had thrown 70 meters in practice already in 2003, and for a long time I was quite angry with myself that I could not do the same in a competition. Today I agree, that two years ago 70 meters would be just one very big, lucky shot. But this time it's not a coincidence; I was ready for it.

LSTJ: You are among the top 10 discus throwers in the world. What do you think it will take to become number one?

GK: I wanted to be number one some years ago, but obviously it is impossible. Statistics prove that in discus you need a lot of experience, and I do not have that yet. When, and will I, become the best, I do not know, but we are working on making it happen.

LSTJ: How would you describe your technical approach to the discus?

GK: Regarding the technical details, my coaches Hafsteinsson and Krevald could explain much more. Here are some basic details I have learned from them. It is not strength that throws the discus; it is power. Power is strength multiplied by speed. My biggest advantage is speed. Vesteinn counts me as one of the fastest throwers in the world. We can prove this fact with biomechanical studies what we have done. In weightlifting I lose to most of the throwers, but not very often in discus. From our point of view, the discus throw and weight lifting are too totally different events.

When I started with Vesteinn in 2000, he told me that I had so many technical problems that it would take five years to get my technique to a decent level. To make any change in your technique you need to take thousands of throws. Since the fall of 2000 I have taken about 10,000 throws every season, and that has developed my technique step-by-step to a better level. That is the reason why my results have increased year by year.

Here is one example of our way of thinking. If we look at discus throwers from the 1930's or 1950's, we have to admit that their attempts look very primitive and funny to us, but nowadays throwers look very good. We are sure that in 2030 people will find our way of throwing humorous because development will continue. If we think like this, then we are going have a chance to see this from a critical point of view and realize that we have a lot of space for improvement in this event.

LSTJ: You mentioned the importance of power versus strength. What type of training do you do to enhance your power?

GK: When I was talking about power, I meant throwing power. By my nature I am a very powerful thrower, but to enchance it, I throw a lot of different tools like pins and little hammers. The weights are between 2.5 to 3.2 kilos. My favorite is a Denfi tool that is designed by Jürgen Schult. It makes you very explosive and your moves very long. It has made me very powerful.

LSTJ: Do you live and train in Estonia year-round, or do you go abroad for training?

GK: I don't live and train year-round in Estonia, because our climate is too cold for it. In winter time we have two

major camps in abroad-South Africa in January and the U.S. in April. Between those long (4 weeks) camps, I go to my coach in Sweden for small camps.

LSTJ: Can you give some brief comments about each of your major rivals?

GK: Alekna is the all-time best thrower in history and my main rival. He has very good tools (body) for a discus thrower. He is tall, has long arms and good coordination.

Tammert is my teammate. He is one of the best technicans and he also has a very good feel. A very smooth thrower. He's definitely one of the top five throwers in the world at the moment.

Kovago is the same age as me. A very powerful thrower and probably the next 70m thrower. He's my main competitor in all the future global meets.

Kruger, since the Sydney Olympics, has been struggling with his technique, but when he finds himself again, everybody has to be afraid of him, because he is a huge talent. Last season he was the only one who beat Alekna.

And he beat me twice.

Möllenbeck at Helsinki showed again; do not ever count out any old, experienced throwers before competition.

LSTJ: In the U.S. elite throwers struggle financially. Do you receive financial support from the Estonian government? Do you receive other subsidies? Are you able to train full-time without working a regular job?

GK: I can train full-time as professional athlete. I get some support from the government and the national Olympic committee. But most of the support comes from my private sponsors.

LSTJ: What are your future goals/plans for throwing? What do you see yourself doing once you retire from athletics?

GK: My two main goals in throwing are to break the world record and to become Olympic champion. Once I retire from athletics, I would like to start with my own business. *LSTJ*

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SPACE FOR RENT

By Adam Nelson

In the Beginning...

After the 2000 Olympic Trials, I found myself in the meet hotel, sharing a table with a prominent agent, discussing a shoe contract. It wasn't until after the Olympics that I signed the contract, and it was only after much assurance from this prominent agent that this was the only and best deal I would find. Less than a year later, I realized I got screwed. I don't blame the agent. I don't blame the shoe company. I blame myself for the lapse in judgment and perspicacity, but there was nothing I could do except wait for the contract to end. I vowed I would not make the same mistake twice.

Over the past six years, I realized that making a living as a track and field athlete is not easy. There are no teams to dole out large salaries and few resources for financial aid or advice. While some sponsorships are available, the sponsors tend to be shoe companies that demand indentured servitude for small stipends. For four years I competed for a sponsor on an incentive based contract.

S/A/B F/R PFIT Nelson

Nelson's tee-shirt said it all.

Because the stipend covered only one third of my training expenses, I was forced to rely on prize money to pay bills and training expenses. Prize money helps, but prize money requires winning and winning presupposes paying the bills while training. I took all this into account when I began negotiations with my former sponsor after the 2004 Olympics.

Assessing My Value

Before entering the negotiations, I spent some time researching how much exposure I had generated for my former sponsor over the past four years. In the preceding four years, *The Wall Street Journal, The New York Times, BusinessWeek, Newsweek, USA Today, Sports Illustrated,* and many other regional and international publications ran stories with me as a feature. This exposure is considered a direct value-add to my sponsor. Quantifying the value of exposure from my competitions and appearances took a lot of time. In the end, I found it an inexact science, which resulted in broad estimations of value. My finished proposal reflected what I felt was a reasonable, if not minimal, projected, return on investment (or new sponsorship) for the next four years.

I wrote a letter explaining the rationale behind my proposal and submitted it to my former sponsor. Their exact

reponse: "Are you f***ing kidding me?" After questioning my sincerity, my former sponsor countered with an offer that I found pitiful. This was their final offer. I think they were shocked when I walked away from the negotiation table never to look back. I didn't intend for this to happen. I intended to sign a much better shoe contract. However, sometimes you have to walk away from a bad deal, even when it's the only deal.

Vindication

The two months leading into the first competition of the 2005 indoor season were some of the most stressful of my

life. For the first time since 2000, I had no steady flow of income. Fear of failure and financial ruin intensified my training. This new intensity inspired my training sessions. Every day got better. Every day I enjoyed it more. When the Boston Invitational finally arrived, I was foaming at the mouth for a competition. Nothing like a chip on the shoulder to get the ball flying far.

It was two days before the Boston Indoor competition. I felt great, but I still had no sponsor. At this point I realized that the agents in this sport do not know how to implement a proactive marketing campaign. They are great at fielding calls from current sponsors, but fail miserably at establishing contacts with new companies. Since I have no marketing background at all, I decided to turn my lack of sponsorship into a marketing opportunity by performing in a jersey emblazoned with "[This] SPACE FOR RENT". The ploy generated considerable buzz in the general press, but never attracted a sponsor.

Working Through An Injury

At the Millrose Games the following week, I injured my foot. Unfortunately, I didn't have time for an injury. Even though I couldn't practice, I continued to push hard through the rest of the indoor season. It wasn't wise, but I thought the exposure generated by my "Space for Rent" shirt would attract a sponsor. I went from New York to Finland and from Finland back to the US Championships. In the end, I finished the indoor season injured and sponsorless. At least now I had time to regroup.

Between the indoor and outdoor season, I made daily trips to the athletic training room for ice, laser treatment, and electric stimulation. I made weekly trips to the ART and acupuncture specialist. It was to no avail. Every time I turned out of the back of the circle, it felt as if someone were driving a nail through the top of my foot. No one had any answers. As each day passed, I wondered whether I'd be ready for the outdoor season. Well, not really. I always find a way.

Financial Woes

In the meantime, I was struggling financially. Several unforeseen problems with my house resulted in major unexpected expenses. My budget for the year was shot. Still hurt and in between seasons, there were no competitions to ease my financial stresses. Perhaps it was a moment of desperation, but I half-jokingly asked my wife how she felt about me auctioning myself off on eBay. After a few minutes, we decided that the auction might be crazy enough to work.

My first scheduled competition of the outdoor season was a little over two weeks away. Despite my injury, I felt like I was in great shape. If I could eliminate the pain, I could throw well. Skipping this competition was not an option. This first competition was necessary to market my eBay auction. Still unable to throw, five days before my first competition I visited a doctor in Gainesville who works with the Atlanta Falcons. He ordered another MRI. That film showed a bone spur and a cyst on my foot. Surgery wasn't a viable option, so the doctor administered a cortisone shot to knock out the inflammation and prescribed Voltarin to regulate it. Incidentally, that was my first and only cortisone shot. It worked. I threw for the first time without pain at the Adidas meet in Carson, CA. In addition I successfully launched my auction on eBay.

The eBay auction was a great risk. First, there were no guarantees. Second, I had no control over who placed a bid. Third, there was always a possibility that no one would place a bid. In the final days of the auction I watched as the bids slowly increased. All said and done, the auction generated over 100 bids from 13,000 hits. The profits from the auction covered most of my training expenses for the first half of the year. By eliminating a significant amount of my stress resulting from financial concerns, the auction allowed me to focus exclusively on competing rather than paying the bills.

The Build-Up To Worlds

US Nationals was a great competition for me. With less than six weeks of practice under my belt, I placed second and made the World Championships team. I supposed I could be disappointed in losing, but I was satisfied with my performance. After Nationals, I took 8 days off from training to take care of some personal business and prepare my mind and body for the six-week build up to Worlds. When I returned from my little break, I felt relaxed, confident, and comfortable.

There are three competitions I focus on throughout the year: U.S. Nationals/Olympic Trials, World Championships/ Olympics, and the IAAF. If I win all three of those, I can pay my bills, maintain a nice standard of living, protect my world ranking, and improve my value as an athlete. If another competition negatively affects my preparation for any of those three competitions, I won't do it. The reason is simple: most competitions do not pay enough money to risk jeopardizing my health at the major competitions. For this reason, I selected my competitions before World Championships (WC) based on how they complemented my WC build up and, then, the money. I chose to compete in London and in the USA-Finland Throws competition. The first helped pay for my trip to Europe and offered a chance at a decent payday without interfering with my Helsinki preparation. The second covered a three-week, all expenses paid training camp at the best training center in Europe in Kuortane, Finland. I look forward to returning to Kuortane next year.

The Last Supper

In the several days before the World Championships, everything seemed to fall in place. The Finnish people treated me like a champion. If I had any doubts, they helped erase them by expressing their confidence in my abilities. Several of them told me, "If not a Finn, we want you. It's your turn." I believed them. At 258 pounds I felt fast and explosive. Indeed, my training sessions before leaving for Helsinki indicated a possible personal best later in the week.

The night before the competition in Helsinki I ate dinner alone in the restaurant at our hotel. I wanted a good meal. I wanted the right fuel for the day tomorrow. After finishing off the last morsel of food on my plate, I walked upstairs to my room. As a medallist in the 2004 Olympics, USATF booked me a single room. I opened the windows to allow the fresh air to enter. Then, I crawled into bed for a satisfying night of sleep. I awoke at 5:45 in the morning thinking, "It's a great day to throw far."

Out To the Track

After a nice breakfast at the cafeteria, I joined the other athletes in line at the bus stop waiting for the first bus to the practice track. The ride was uneventful. The American throwers claimed a corner of the track. I laid down on the ground shutting my eyes for twenty minutes while I listened to some music and warmed up my back. With about an hour and a half until the competition began, I began my warm up. Slowly, I shook the cobwebs from my head and body and made it around the track several times. The sun began to shine as I took my first warm up throws. As we walked to the call room, I felt great. Unfortunately, the walk to the call room took about 10 minutes. It culminated in a long, steep hill that left us all a little out of breath.

The preliminary rounds are always the most difficult for me.

For some reason, I'm always in the group that experiences a major delay due to technical problems or an overly zealous official. This was no exception. Finally, I stepped into the ring for my first throw. It fell way short of the automatic qualifying distance. Fortunately, I took care of business on the second throw. Still, I was a little concerned because my legs felt dead.

When I returned to the village, I immediately ate lunch and returned to the US hotel. Once there, I went to the training room and asked for an ice bath. After the ice bath, I returned to my room and took a two-hour nap. I awoke with renewed vigor, knowing that today was my day.

Finally the Finals

It was a brisk night. The sun was setting and the clouds came rolling over the top of the stadium where 35,000 spectators had arrived early for the first night of competition. As the temperature dropped, I wrapped my towel tighter around my neck, put on an additional sweatshirt, and broke out the hooded rain gear to repel the mist.

I kept moving to keep my body warm. I pulled my hood down low to cover my eyes. Now was no time for friendly eye contact. As the official called for the start of the competitive throws, the crowd seemed disinterested until Rutger launched his first throw over 21m. I saw his reaction to the throw and said to myself, "He should enjoy the lead while he can. It won't last." Before I knew, it was my turn. With the temperature cooling and the clouds threatening to unleash

the rains, I understood the importance of this first throw. The conditions may not last. Take advantage of them while you can. As I began my pre-throw romp to the ring, I laughed a little at the confused Finnish crowd. Perhaps they thought I was crazy, but it didn't matter. After my first throw landed well beyond the 21-meter line (21.73m), they erupted. From that moment on, they cheered me on as one of their own.

I wasn't sure if my first throw would hold through the entire competition. Cantwell, Belonog, Olson, and several others were capable of surpassing it. I wanted to put the competition out of reach. My practices indicated that I was capable of going well beyond the 22-meter line. As my shirt came off for my second throw and I stepped off the

grass onto the mondo surrounding the shot put circle, I dried my feet on my towel and stepped into the ring. There are moments in the ring when you hit a certain position and



Nelson was pure gold in Helsinki.

SOLD!

Our company had been looking for an unusual way to promote MedivoxRx's premier product, Rex-The Talking Prescription Bottle. Our CEO, Chris Spencer, saw Adam's story in USA Today on the last day of the auction and immediately called and asked if he thought we should do it. I was thrilled and thought this was exactly the type of unique approach we were looking for. Not only that, but it was the ideal situation: an Olympic athlete with a pristine reputation and an interest in maintaining a healthy lifestyle acting as a spokesperson for a product that was created to help people stay healthy by maintaining their medications



Rex The Talking Prescription Bottle

properly. So the wheels were in motion and I started planning everything as if we had already won Adam's sponsorship. It actually required multiple bids and it was truly down to the wire when I submitted the final bid of \$12,000. There was a second bid of \$12K from another bidder, but mine was submitted before theirs, so we were the winners.

I must say that the sponsorship was invaluable. We had such a great experience and know we got Adam's sponsorship at a bargain rate! Our company received the best PR in

its 10 year history, with mentions in USA Today, The Washington Post, TV Guide and Sports Illustrated. Not only did Adam uphold every stipulation of the contract, but he also took a vested interest in our product in order to become



a truly qualified representative. While being interviewed on camera, Adam was able to relate to the audience well and spoke intelligently about our product. He was also quite comfortable in front of the camera, and had a great rapport with reporters. We were also pleased with his responses in print media.

If we were a larger, profitable company, we definitely would've continued with Adam's sponsorship. I am sure we would consider doing something like this again.

Danielle Lewis, Marketing Director Wizzard Software Corporation you know that you're about to do something amazing. I haven't had one of those moments since 2002 until my second throw in Helsinki. As I exited the back of the ring, I felt the perfect position. I drove hard off my left foot, when just before my left foot left the ground it slipped. Not much, but just enough to affect my linear drive across the circle. This missed throw fell short of my first throw at 21.28m.

As the competition continued, I watched as thrower after thrower continued to press hard for a better result. Ralf Bartels pleased the Germans in the final round with a bronze medal effort of 20.99 meters. After Rutger's final throw, I knew the competition was over. As I made the walk into the grass infield to begin my pre-throw routine, five years of memories flooded my head. From my first major championship at the Olympics in 2000 to Edmonton, Paris, and Athens, I'd missed out on this moment. I fought hard to suppress my emotions and the memories for one last effort. It was no use though. The tears were forming in my eyes before I entered the circle and were pouring out of them by the time I left it. Then, I did something I've wanted to do for a long time: I took my first victory lap at a major championship.

What the Future Holds

At some point in your life, you must stand up for what you believe. Last year, I took a risk, but it was an educated risk. It's still too early to tell if it will pay off. I am still without a sponsor, but I'm not using that as an excuse to complain about the inequalities in this sport. I'm using it as an opportunity to create new kinds of sponsorship, to recruit

new industries and companies into the "Olympic" movement, and to inspire my daily workouts.

Currently, I am creating a media kit to solicit sponsorship from a wide range of companies. The world doesn't revolve around my former sponsor nor does it revolve around the three other official sponsors of USATF. We all have options. I've made a decision to look outside the box. The worst thing that anyone can say is "No, we're not interested." That doesn't bother me at all.

As the 2006 season approaches, I'm training hard and loving every minute of it. My new workout partner, Rhuben Williams, arrived the first week of November. I'm expecting big things out of him this season as he is expecting the same from me. The last time I had a training partner like Rhuben was in 2000. That year, I improved my personal best almost 5 feet. Hopefully, history will repeat itself.

On a slightly different note, I'm revamping my website. Soon, I plan to offer training tips, merchandise, and personal training. So keep an eye on www.throwclean.com in December. Also, I am currently offering individual training to rotational shot putters. You can contact me through my website if you are interested.

As for my personal goals for next year: 22.66 meters and 23.12 meters!
No further explanation seems necessary.
LSTJ

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The Most Neglected Muscle Groups

Training The Core

By Pat Corbett

The CORE (which consists of the lower back, abdominals and obliques and their connection) and how to train it, are essential to a thrower's success. The ability to begin a throw in the proper position, hold that position throughout the throw and finish the throw are absolutely dependent on Core strength and stability. Core strength also plays a crucial role in a thrower's ability to maintain balance and produce torque. It will also be one of the major factors for maintaining good throwing posture during long training sessions and throughout competitive seasons.

Without a doubt the lower back (erector spinae) is the most under trained muscle group in the human body. Most people don't even realize that this is an area to be trained. Ask most athletes or fitness enthusiasts how to train this muscle group and they will look at you with a frown and a shrug. This is significant ignorance when considering that up to 20% of all sports injuries are related to the lower back and neck. No wonder the number one reason people are kept home from work is low back injuries. Although most humans (80-85%) and an even higher percentage of athletes will experience a disc problem at some point in their lives, we can combat this and even minimize the effects by training the core and specifically the lower back.

Athletes and especially throwers are particularly susceptible to lower back injuries. Because of the ballistic nature of throwing motions, the lower back takes a tremendous beating. During a typical training year, a thrower will train for thousands of hours, lift tons of weight and do thousands of throws. After 5-10 years of competitive throwing the wear and tear of training day after day can sometimes be the retiring factor and many times a breakdown of the lower back is the reason.

Lower back pain seems inevitable. Our posture is compromised by our jobs, our modes of transportation and leisure activities. Unless a constant effort is made from a very young age, these postural problems will persist.

Genetics and nutrition also play a huge part in lower back problems, but genetics can be maximized and nutrition can be manipulated to help improve bone mineral density and muscle mass. Although you are given a certain genetic make-up, sports science has shown that through fitness and activity, we can teach our bodies to perform better with training. Nutritionally, we are lucky enough to possess vast amounts of information on supplements and food that can help with any problem. Nutritional considerations will be addressed in later issues.

While nutrition and genetics play a large part in our overall training program and how our core responds, the area where we have the most influence is how we go about training it.

The following are exercises that can help to improve core strength, stability and posture.

Training the Core - Lower Back

Posture! Concentrate and put effort into good posture all through the day. If you are sitting or driving, make sure to have some type of Lumbar (lower back) support.

Running/Jogging: When doing distance running, do some of it and/or much of it on grass or hills to take stress off of the lower back.

Weight/Training: There are many exercises that can help strengthen the lower back. Here are a few:

Back Squat: When you perform a back squat correctly and drop to or below 90 degrees of parallel, your lower back and abdominals become the primary stabilizers and are strengthened.

Good Morning: With the bar in the same position on your back as the back squat, while locking your body into an athletic posture (knees slightly bent, hips back, chest up, eyes forward; be semirigid but not flexed, keep weight over the mid foot but put emphasis on the heel), lower the chest while pushing the hips back and bending only at the waist. Keep the lower back slightly arched and raise the bar back up by leading with the shoulders.

Romanian Dead Lift (RDL): While standing, start by holding the bar in front of you at arms length and in a good athletic posture. Lower the bar slowly and under control by pushing your hips back while holding your posture and letting the bar slightly scrape across your quads to a position just below your knees and then raise the bar back to the starting position.

For all weightlifting exercises, be sure to maintain flawless posture and master each lift before any weight is added. Although more weight will improve strength, stability, muscle mass and bone mineral density, too much weight can easily cause injury if you are not ready for it. Use a good training schedule of progressive overload and a variety of exercises to accommodate as many different angles and supporting muscle groups as possible.

The Other Side of the Core-Abdominal Training

As neglected as the lower back is, the abdominals may be the most poorly trained muscle group. Some athletes do thousands of repetitions to strengthen their abdominals. But most of these repetitions are fruitless. An abdominal muscle is still only a muscle and should be trained accordingly with the proper sets and repetitions, rest and recovery that other muscle groups must have. Abdominal training is also crucial to balance the strength in the lower back. Lower back training without abdominal training is almost futile. There must be a balance between the abdominals and lower back in order to equalize the strengths of both areas and reduce the risk for injuries. Like the lower back, train your abdominals using progressive overload with a variety of exercises (not just crunches and sit-ups).

Author's note: Do not forget about the lower abdominals. (The lower abdominals have a reputation of being both a part of and separate from the upper abdominals. This debate will probably go on until we learn more about their physiology. For this article we will count the upper and lower abdominals as separate)

To train the lower abdominals, you must involve movements that pull your knees to or above your waist. Here are some examples:

- Hanging Knee Ups: Hang from a bar and lift your tucked knees above your waist.
- 2. Seated Knee Crunches: In a crunched position, with your hands behind your hips while sitting with your heels off the ground, extend your feet (with toes pointed toward you and keeping your knees together) and your body into a straight position and then return to a crunched position.

The Third Side of the Core - Training the Obliques

All of the throws require a rotation, extension and twist of the upper body. Your obliques are vital to these motions. Without strong obliques, torque, posture and the ability to block will be hindered to a large degree. This part of your training can be done quickly and should be addressed in some way in every training session. Movements that train the obliques include twisting or rotational motions (standing twists and rotations are recommended for better range of motion and safety).

Here are some examples:

- Medicine Ball twists and rotational throws w/or without a partner (there are many variations).
- 2. Walking Medicine Ball or barbell twists.

Notes on the Obliques: Obliques are a special muscle because of the ballistic way in which they can be trained. Unlike training the lower back or abdominals, the obliques

should be trained with speed (enough to develop fast twitch fibers but slow enough to stay safe) and mimic the paths of a throw whenever possible.

Notes on Medicine Balls: Using medicine balls will give you the luxury of being able to do many different variations of a twist or rotational movement with almost the same speed as an actual throw. In fact many throwers will mimic their throwing motion in a variety of movements using only medicine balls. But, be careful not to overdo it. Medicine balls range in size and weight; also, the range of motion for movements using medicine balls is sometimes quite different than an actual throw and can cause injury. Be smart and use your medicine ball training as a way to improve oblique strength, range of motion, motor patterns and flexibility.

Note: Do not use oblique training with medicine balls as a substitute to improve any specific throwing technique or overall strength. Although you may gain some unspecific strength and technique for throwing medicine balls, there is still no substitute for good throwing drill work and proper lifting technique.

Note: The lower abdominals and obliques are not trained doing the typical crunch or sit-up. For throwing, they deserve some special attention. (ex: the mundane crunch/sit-up only train the upper abdominals).

Special Note on Abdominal Training: If your goal is to isolate the abdominals for specific training the following must be observed:

- Your feet cannot be locked into any machine or be held (by doing this you involve the hip flexors and they end up doing most of the work).
- Your back should be rounded slightly with your head straight (pretend you have an apple under your chin).
- Although rounding your back is taboo for most exercises, when doing any abdominal training, rounding will work to put more stress directly on the abdominals.
- 4. Be conscious of jerking motions and do your best to only move the areas that you want to target.
- To train the core best, do the bulk of your training on your feet. Any time you do movements while seated, trapped in some machine or lying down, you put abnormal pressure and stress on the lower back.

Here's to a strong core and great posture. Remember what your parents used to say, "Sit up straight!" "Don't slouch!" They really did know what they were talking about after all. *LSTJ*

NO REGRETS

By Glenn Thompson

Steve Backley turned to the javelin after starting out in athletics as a cross-country and middle distance runner. Some twenty-five years later he's the four-time European javelin champion and has won the Commonwealth Games three times. Steve is the first British athlete to have medalled at three consecutive Olympic Games. He has made the world top 10 every year since 1989 and on three occasions has been world number one.

Recently retired, Backley took some time to chat with LSTJ about his career, technique and current pursuits, among other things.

Long and Strong: What was more rewarding, your world records or your Olympic or World Championships medals? Do you miss not having a gold in either?

Steve Backley: Performing at championships is the mark of a great athlete. However, I did really enjoy the world records, and to be the first over 90m in my home country at the Crystal Palace in 1990 was very enjoyable. I would say

though, that by far and away, my best performance in my career was to throw just short of 90m in the Olympic stadium in Sydney. I have no regrets with the silver medal. I was behind one the greatest sportsmen (Jan Zelezny) the world has ever seen. If performances were ranked across events, then there would certainly be some gold medallists behind me. It is all about producing your best on the big day and I certainly did that. I also take great pride in being the only athlete in

British history to have three medals from three consecutive [Olympic] Games, very nearly making that four-for-four in Athens. The other highlights are to be picked by the IAAF as the Athlete of the Year in 1990, and to win four European titles in a European dominated event.

LSTJ: You mentioned about peaking at the right time and performing well at the major meets. What was your mental/physical approach leading up to these meets?

SB: Learn what character suits you best when it comes to competing. Simply put, if you throw well when you are nervous, then you must believe that your life depends on the javelin going far. If you throw far whilst being relaxed, then enjoy the experience of competing and don't put pressure on.

LSTJ: How would you define your throwing style? Did it evolve over the years? In retrospect, would you change anything about yourself technically?

SB: I would describe my style as rangy. I always tried to impart a long pull on the javelin. The only reason my technique changed in the early middle of my career was due to injury. In the latter part, I made some changes whilst working alongside Jan Zelezney and Jan Pospisil. These proved to have mixed results. I felt a lot more in control of my technique at championships, but my knees did not enjoy all of the work and I had surgery on both whilst doing their schedules.

LSTJ: What were your general impressions of the javelin competitions in Helsinki this past August?

SB: It was very strange to be in Helsinki at my first major championships since retiring. Generally, on the men's side, prior to Athens, the event had been dominated by the 'older' throwers. Athens marked the turning point, and was very much a changing of the guard. Helsinki, therefore, was

a chance to see who would further their campaign. The women's javelin event was a mixture of young and old and always threatened to be a great competition.

The evening of the men's final was almost a complete washout, with torrential rain and strong winds into the thrower's faces. As the throwers warmed up, it seemed possible that a throw of below 85m would be enough to win. The event unfolded and the pressure was very much on

the young local athlete, Tero Pitkamaki. He unfortunately did not deliver, and in my opinion, this was not due to anything other than the headwind. He tends to throw the javelin very high and struggled to control the point and get it going forward. From my position in the stand adjacent to the 80m line, it was obvious that he was getting some huge speed of release, but could not apply this along the javelin, and unfortunately fell short of his expectation.

The battle was between Andreas Thorkildsen, Sergey Makarov and Andrus Varnik. Thorkildsen was by far the most impressive of the bunch with his series, and I believe he will prove to be a great Olympic champion, challenging for medals over the next 10 years or more. My money was on Makarov, as I knew he would not be put off by the conditions, having seen him throw a long way after



Steve Backley

running through puddles in Glasgow a few years back.

It was, however, Varnik who caught the high long flight of the evening and impressed with a long throw down the right sector despite the strong left head wind.

It was a great battle. However, I was disappointed that the conditions almost spoiled the evening, especially when you look at the distances achieved later in the season by Pitkamaki, Thorkildsen and Makarov. The three had epic battles in both Berlin and the Grand Prix final. A competition like this would have made the javelin the event of the Games in Helsinki; the home of javelin throwing.

The women's final enjoyed far better conditions, probably the best of the week. Britain's Goldie Sayers threw well in qualifying to make the final, her first, and a great achievement.

Having watched the women warm up, I was convinced that the leading German, Steffi Nerius, would be a major contender as she threw 65m plus very comfortably in the warm-up arena.

The event began and Menendez of Cuba unleashed a huge throw in the first round with a new world record of over 71.70m. Obergfoll of Germany proved to be the best of their throwers with a huge PR of 70.03m, much to the surprise of

Menendez, who had very confidently taken a Cuban flag from her coach at the back of the runway to celebrate her success. The positions did not change after the fireworks of the first round, and Nerius would have been slightly disgruntled with her third place finish behind her team mate Obergfoll.

LSTJ: Can you talk about the injuries you sustained over your career? I know that you battled them over

the years. Did they ultimately lead to your retirement? Of the throws, the javelin seems to claim the most victims due to injury. What are some keys to having a long and healthy throwing career with the javelin?

SB: Injury plays a huge part in javelin throwing and acquiring the best advice on injury prevention is by far the best advice I could give any thrower. Learn how to do shoulder prehab very well, and stretch regularly. This is one of the areas that I have been busy putting information together for. The exercises needed are housed within the exercise directory at www.pactraining.co.uk.

LSTJ: Can you further explain the concept of shoulder prehab?

SB: Many athletes only learn once they have damaged themselves, what they should have done to prevent it. By doing the classic rehabilitation exercises which are normally performed post injury before you are hurt, you will inevitably prevent any problems. I have demonstrations of all the prehab exercises in my website.

A wise man learns by the mistakes of others, a fool by his own.

Latin Proverb

LSTJ: Can you reflect on some of your contemporaries/rivals?

SB: Having competed over three decades, I was very fortunate to compete alongside some of the greats including Olympic champion, Tapio Korjus and his team mate Seppo Raty. Klaus Tafelmeir and Detlef Michel were huge role models to me as a young thrower, and I enjoyed competing alongside them later in their careers. It was Zelezney, Raty and Makarov who really set the standard through my career, though. Mick Hill played a huge part in my development and one of the competitive highlights of my career was to stand on a rostrum alongside Mick after coming in first and second in Budapest at the European

Championships in 1998.

LSTJ: How would you describe the state of javelin throwing in the U.K. these days?

SB: With Mick and I finishing, things are not as strong on the men's front as they were. Nick Nieland leads the pack with David Parker also qualifying for the Commonwealth Games. We do, however, have some promising youngsters in James Campbell and Stuart

Harvey. On the girls' side, Goldie Sayers is very promising and is ready to contend with the very best in the world. A return to competition of Kelly Morgan would be very welcomed.

LSTJ: Tell us about some of your current business interests as referenced on your website.

SB: Since retiring, I wondered what I was going to do with all that I had learned over the past 20 years. I am delighted to be involved in coaching supported by U.K. sport. I have also taken the time to collate all the information on power



training and put it into the website. You can also access the site through my personal website, www.stevebackley.com.

For the ambitious sportsperson that does not have access to a daily personal trainer, PAC training® uses the power of the internet to deliver comprehensive training advice to people of every sport and performance level. The training programs and advice are provided by myself along with my team of fitness experts.

My training programs are complimented by a DVD-ROM which houses over 1,000 video files of me performing over 500 exercises. The DVD draws on QuinticTM technology, giving users the ability to view exercises from many angles, in slow motion, and to even compare their own training techniques to mine.

PAC training® provides the full spectrum of training advice. From complete annual periodized programs for ambitious athletes, to starter programs for complete novices, PAC training® offers an effective solution. Our most popular training programs are comprehensive annual performance plans, but some members will require shorter programs. These include quick-fix weight training

schedules for weight loss and weight gain, sprint drills for improving running speed, and medicine ball workouts for improving core strength and conditioning.

The website is a subscription-only service that delivers fully interactive training programs to you within 48 hours of signing on as a member. Training programs are tailored to each member's individual needs. PAC training strives to offer the very best training information, using modern technology all over the world.

LSTJ: What one piece of advice would you give to young javelin throwers?

SB: Throw lots and learn which technique suits you best. The most important thing for any thrower is to transfer what power they do have into the javelin. Generally people are poor at this thankfully, as this is what allowed me to beat people who were more powerful than me. Once this is in place you can concentrate on developing your power output. Remember the point! It's something I often use whilst coaching. The 'point' being to make the javelin go far and the 'point' of the javelin itself being the crucial indicator of alignment. *LSTJ*



Terry Albritton: Jan. 14, 1955 - Sept. 1, 2005

GONE TOO SOON

By Glenn Thompson

On September 1, 2005, the throwing world lost one of the leading lights from its golden era.

Stanford Hall of Famer Terry Albritton, who broke the world record in the shot put at the age of 21 in an all-comers meet in Honolulu with a heave of 71'8½" on February 21, 1976, died too early at the age of 50 in Phnom Penh, Cambodia.

The cause of Albritton's death, according to the Cambodian government, was asthma.

"My dad was certainly asthmatic and ... he was rather huge, but being that he died in Cambodia and they cremated him before they even notified us that he had died, we can't help being suspicious," Shane Albritton told the San Francisco Chronicle. "He's already cremated (so) we'll probably never know what actually happened."

A U.S. embassy representative told the family that Albritton was found in his rented house in the Cambodian tourist town of Siem Reap and had died of natural causes. Because the body wasn't discovered for four days, it had badly decomposed in the tropical conditions and needed to be immediately cremated.

Albritton had migrated to Cambodia in June 2004, after working for 14 years as a teacher and coach at St. Anthony

High School in Maui. He also had worked as a strength coach at the University of Hawaii.

How Albritton arrived in Cambodia is a reflection of the man's free spirit.

Albritton took Shane and his younger brother Thomas on a trip to Thailand and Cambodia in 2002. The elder Albritton quickly developed a passion for the region, and settled in Thailand, then Cambodia, just two years later. Albritton

saw it as a place to live cheaply, without restrictions, as he pursued writing.

LSTJ contacted Albritton just prior to his departure. Albritton told LSTJ of his plans and I couldn't help but be fascinated by a man who would make such a leap of lifestyle. He promised to do an interview once he arrived, but his e-mail address went dead and so did the story.

"It was a shocking thing," said Tony Ciarelli, a friend and former track teammate of Albritton's at the University of Hawaii. "I had just gotten an e-mail from Terry at the end of August. It was shocking to hear he died so suddenly."

"Terry was a true renaissance man," St. Anthony athletic director Jim Klaczak told *The Maui News*. "He handled everything. He did strength and conditioning. He taught

health. He was a writer and a poet, besides being just a bear of a man. He was a fixture. Everybody knew where he was. You would see him at church or you would see him around the campus. Everybody knew who he was – he was just a fixture around here for so many years."

"Terry was a creative, different-thinking type of guy and I appreciated that," Mac Wilkins told the San Francisco Chronicle, a friend of Albritton's and the 1976 Olympic gold medallist in the discus throw. "He was easy-going and he was real accepting of everybody. There's another side of him that reminds me of Uncle Duke in Doonesbury. He smoked, and he was always scheming about things. Uncle Duke is a take-off on Hunter S. Thompson. That comes from his creative background."

"He was a free spirit," said Ciarelli. "He was traveling all over Southeast Asia. He was in Thailand, Cambodia, Vietnam. It was like he said, Hawaii was (back) in the day. When we were there in the '70s, it was still kind of low-key. He liked that. He thought Maui was getting too commercial. He wanted to find a place that was similar in attitude."

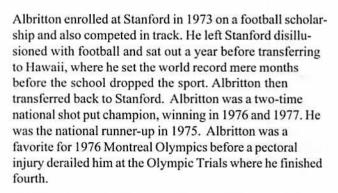
Albritton and fellow thrower Jim Neidart liked to lounge on the beach wearing floral-print Speedos. The two men were teammates at Newport Harbor High School in Southern California. Neidart later gained fame in another arena, as

> professional wrestler Jim "The Anvil" Neidhart.

"You can imagine Jim and Terry well over 300 pounds in Speedos," Ciarelli said.
"There are thousands of pictures of them in Japan. They'd lie on the beach and Japanese tourists would stop and take pictures of them."

Friends who had lost contact with Albritton feared he had died in the tsunami that devastated parts of Indone-

sia, but by that time he had moved on to Cambodia.



Albritton is survived by sons Shane and Thomas, sisters Lorelei Davies and Marla Ramirez Albritton, a grandson and a nephew. *LSTJ*



Terry Albritton

ROTATIONAL SHOT FOR PREPS THINKING OUTSIDE THE BOX

By Glenn Thompson with Dr. Robert Silverman

One of the worst responses a middle manager can give his boss is, "Because that's the way we've always done it." Spit that one out and you'll be the first one out the door during the next corporate 'rightsizing'.

There's some of that approach to high school throwing. At the average school, shot/discus throwers learn the glide in the shot and standard discus technique. Why? Just because that's the way it is, period.

But why not the spin? "We don't have anyone here who knows how to coach that style."

Huh?. Really? Well guess what? If you can't teach the rotational shot, then you sure as hell can't teach the discus. It's that simple! There's a popular misconception that teaching the rotational shot takes a Masters sheepskin in kinesiology and perhaps a visit to a Tibetan temple to

understand the mysterious metaphysical aspects of the movement.

In fact, if you give it about five seconds of thought, you'll realize that the two movements are much more alike than they are dissimilar. The footwork is virtually identical, the tempo is slow to fast for both, and they both reward athleticism.

So why not indirectly teach one event while working on the other? Why not reinforce the same nervous pattern in one event while teaching the other?

This concept first came to me last spring when my friend, Dr. Robert Silverman, took his coaching skills from his hometown high school (Annville-Cleona, PA) to nearby Palmyra. Doc told me one day early last spring he was moving to the spin as his standard method. That's a groundbreaking move in these parts, where decent technique of any sort is relatively rare. Doc has never been afraid to break new ground, and such a move was true to his nature.

I would argue that in terms of distance, there's more upside with the rotation for the typical athlete who doesn't bench press 400 pounds or have a 8' wingspan. And I would further argue that a reliable rotational technique can be put together in no more time than it takes kids to figure out the glide.

Unlike the football and basketball teams, there's no offseason conditioning or summer league hoops for most prep throwers. Your athletes don't toss the shot in a fall league. Odds are that at most any school, 90% of the throwers last picked up an implement when their season ended last spring. And maybe half of the kids have never touched an implement before. Your lucky if 50% of them have even lifted a weight. So how do we make the best use of the two-plus months you have with these "recreational" throwers?

Teach them one technique, not two!

Now is this an anti-O'Brien style editorial? ABSOLUTELY NOT. There's a lot of old school coaches out there who swear by the glide and feel it is the most reliable technique. To make these statements represents a form of heresy or libel against their favored technique.



Jeremy Silverman

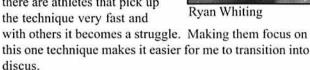
I am by no means bashing the glide. It has been a very effective style for over fifty years now, and will continue to be just that for those best suited to it. But I have a vision of high school track meets where the glide becomes the novel technique. A vision where both the shot and discus are hurled with similar techniques that breed improved performance.

I asked Dr. Silverman to reflect on his experience importing the rotational shot to a new school in 2005.

Certainly, the fact that my knowledge and experience in teaching the glide technique is limited contributed to my decision to teach only the rotational. However, I found that using one technique:

- 1. Reduces the confusion for the students,
- 2. Makes it much easier to teach a larger number of student-athletes
- Does not give the early frustrated thrower an"al-3. ternative" style to retreat into - prep throwers perceive the glide as easy and less complicated and if both styles were available, in times of difficulty would want change to the glide.
- Athletes are all on "the same page" and better 4. equipped to help out a teammate
- Makes practices easier to organize 5.

I allowed a few of my throwers at Annville Cleona to glide because I felt these prep throwers did not have the athleticism, coordination or mental capacity to spin. I was right, but that also proved true for them in the glide. The fact that they were gliding became big distraction to my spinners when I first took over the program. As in any program there are athletes that pick up the technique very fast and



Having an experienced rotational thrower on the team or at practice on a regular schedule definitely helps the prep thrower with visualization of the whole process.

I found that videotaping is a must at the beginning to help the students "see themselves" as rotational throwers (besides the obvious training benefits). I tape practices and at the end of the week give them each copies on CD. I also taped each meet, reviewed it with them as a group, and then sent them home with a copy to study in slow motion. I would give them a "pop quiz" while working out the next day on their mistakes and ask them what THEY would do to correct them.

I found that if you are not ready to give the young athletes the support needed at first, you might as well go back to the glide, where you can just scream out your instructions. In young athletes that are still trying to find out who and what they are about, the concepts of balance out of the back, hitting three o'clock, blocking and screaming can become at first overwhelming. My first conversation with the kids always begins with a disclaimer – This will be frustrating to many of you at first, BUT once you start to master the spin, you'll put the gliders to shame. This same message was given repeatedly thoughout the season until one day it's no longer needed.

Of course having locals Jeremy Silverman [former state shot record holder (H.S. PR-65'4") and shot/disc champion, U.S. Junior silver medallist, now at UCLA] and Ryan Whiting [70'0", 2005 U.S. #1 prep ranked in the shot and disc, Pan-Am Junior SP/DT gold, now at Arizona State) as role models doesn't hurt either!

The students at Palmyra were very receptive to the idea of everyone spinning, and the parents – whom I worried about the most – gave me no grief at all.

One reason the first year was relatively uneventful was that we had no upperclassmen on the throwing squad. That



meant there were no gliders that had any successes with that technique and had to be changed. The girls seemed to be more problematic than the guys on hitting positions and getting their hips into place. They all enjoyed and still love the attention they receive at meets when the whole team is spinning (even though that's all that some of them are doing).

I feel that making the rotational shot standard at this school has made coaching easier, and easier for the athletes to learn. Rotation, unlike the glide, is a concept more than a technique, and I tell the students that it will come to them in pieces that will all come together. We are at that point this second year in the program – time to get strong and tweak and tweak and tweak.

The first year we had a fair amount of success with the boys and girls teams. We were scoring points for the team and starting moving to our goals. All but one of the students were able to compete using some level of confidence using the rotational technique by the end of the season. We had only lost one student to the frustration of learning the technique – a football player who had some misconception about what was involved in putting the shot, and a serious lack of coordination.

Successful programs always bring out more students, and as it did at Annville – there the throwers supplied the winning points every meet. Who knows how many more like Jeremy and Ryan are on the horizon? *LSTJ*

MOVING?

If you are anticipating a change of address, please send me an e-mail, drop me a line or give me a call to let me know in advance. Third-class mail is not forwarded, so your copy will wind up in the trash at your former post-office and additional cost is incurred to mail again.

Thanks, Glenn Thompson (Publisher)

Pavel-Mania!

By Glenn Thompson

There's a counter-movement afoot that has nothing to do with insurgents, Greenpeace or Anarchists. It's a subculture growing in the weight lifting community whose training tool of choice is not a barbell, dumbbell, or any machine. Its practicioners are popping up all around the conventional majority, like pumped-up pod people.

One of the leaders of this revolution is Pavel Tsatsouline (pronounced Sat-so-leen, but he prefers just 'Pavel'), a former Soviet Special Forces instructor, a consultant to the U.S. Secret Service, U.S. Marine Corps, the National Nuclear Security Administration/U.S. Department of Energy, and the U.S. Secret Service.

In its eternal search for strategies to improve performance, LSTJ approached Pavel to shed some light about kettlebells, stretching and all things Pavel. If a tree falls in the woods and no hears it, did it really fall? And if it doesn't make you a better thrower, do you really care?

Cup your hand to your ear and listen closely...

LSTJ: Can you talk about your life in Russia? Where were you from? What was your athletic background?

Pavel Tsatsouline: I am from Latvia, one of the former [Soviet] republics, today an independent country. I have competed in kickboxing, military hand-to-hand combat, and kettlebell lifting. I was nationally ranked in kettlebell lifting, a 'Master of Sports.'

One thing that might surprise you about the former Soviet Union is that there was not a single training methodology everyone had to comply with. There were many schools and systems.

LSTJ: You were born and educated in Russia. What brought you the U.S.?

PT: This is the best country in the world. I believe in what it stands for. General Patton's address to U.S. soldiers, when he said that their job was not to die for their country, but make the enemy die for his, made a deep impression on me.

LSTJ: What is your general philosophy regarding training for athletics?

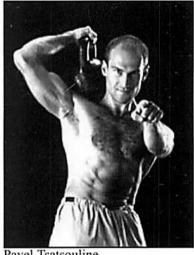
PT: Strength is a skill to generate tension and 'linkage.' Approach your strength session as a 'practice'; not a 'workout,' Build what Marty Gallagher calls 'easy strength' -PR without maxing. Lift heavy, but keep your reps low and don't go to failure. Focus on deadlifts and their variations and heavy rotational exercises.

You must combine tension training with relaxation exercises, various shaking movements, shadow boxing, etc. Adding the dynamic component, e.g. power cleans, until you have learned to get tight is pointless.

When you practice the skill of your sport, practice 'same but different' events (change the implements, the weights, throw at a disadvantage, for specified distance, etc.). Learn and finesse the skills of your sport by practicing them isometrically.

Power generation from the hips is an art form that some have and others don't. I have reverse engineered a sequence that teaches the athlete how to use his hips like the elite.

Periodically take time off your sport skill practice, a 'neurological erasure' to clean up the static in the technique.



Pavel Tsatsouline

LSTJ: Have you worked with any national/world-class throwers? What about other sports?

PT: I am an instructor, not a coach. I teach principles; coaches apply them to their sport. Dan John had a 5m PR in the javelin, thanks to the kettlebells' 'what the hell effect.'

Allyson Felix ran women's fastest 200m in the world at the age of seventeen after her coach Barry Ross put her on a strength regimen based on my book Power to the People! This book outlines a heavy, frequent, but non-exhaustive deadllift-based strength regimen.

Boxing coach extraordinaire Steve Baccari, RKC (Russian Kettlebell Certification) uses the same Power to the People! deadlift regimen with his fighters. Even a more extreme variation -five deadlift doubles spread over an hour. Steve makes a point that the next set is not done

until the athlete has 'forgotten the last one.' This radicalfor-a-boxer approach -low rep slow lifts, extreme rest periods, never training to failure, and no power cleans or plyometrics - produces fearsome and resilient fighters. Baccari's seventeen-year old fighter Demetrius "Boo-Boo" Andrade destroyed his older and more experienced opponents to win this year's 152-pound national title in Colorado Springs. "I do them plyometrics in the ring," smarts off "Boo-Boo."

LSTJ: You mentioned lift heavy, but don't go to failure. Why not to failure?

PT: It is the muscular tension, not fatigue, that you should maximize in training if strength is your goal. There are plenty of studies, for instance Goldberg et. al (1975), to support this notion. The heavier is the weight you are lifting, the higher is the tension. It is that simple. The Russian definition of intensity is the percentage of the one-rep max. All academics aside, top powerlifters like Ed Coan always keep a rep or two in the bank. Coan never misses training weights and he hardly ever misses his competition attempts.

LSTJ: What would be your approach to training a thrower?

PT: Train six times a week alternating throwing skills days and strength days.

On your strength days do deadlifts, presses, one-legged squats or 'pistols,' and heavy rotational exercises. No need to be explosive, just stay tight. Deemphasize the negative in the deadlift, almost drop the bar. Try to avoid getting sore and stiff. In presses and twists, make a point to transmit the force from your torso to your arm through your lat. Use 5 minutes and longer rest intervals and nonexhaustive set/rep schemes, for example:

5x3@80% 3x3 @ 85% 3x2@90% 80%x4,85%x3,90%x2 (80%x3, 85%x2, 90%x1)x3 (80%x2,90%x1)x5

Practice relaxation exercises between sets. Finish your strength session feeling stronger than when you started.

On the throwing days, practice 'same but different' throws. Vary the implements (regulation implements, kettlebells, rocks, tires, etc.), throw at a disadvantage, throw not only for max distance but for specified distances. The last point is very important for a number of motor learning reasons.

Pay attention to synchronizing a forceful exhalation with a throw-'match the breath with the force.' Between throws practice relaxation exercises similar to the ones in my DVD

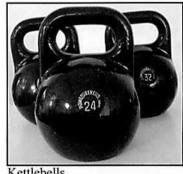
Fast & Loose. Spend a couple of hours throwing and take very long breaks, 'until you have forgotten your last throw.'

Periodically incorporate isometric throws. Push against a stationary object from various points in your throw. Quoting Professor Yuri Verkhoshansky, isometrics offer "a better opportunity to memorize the proper positions visually and kinesthetically than the dynamic mode. This makes the isometric method especially valuable for teaching and mistake correction."

I shall extrapolate on this subtle, but extremely important point. Let us use the military press as an example. In order to put up the heaviest weight safely, you need to 'wedge' vourself between the barbell and the ground, every muscle tight. It is not an easy skill to learn with a live weight, but a piece of cake with isometrics. Stand inside a doorway, on a stool if necessary, put your hands up against the molding, and press. You will naturally tense up your legs and waist. Remember that feeling

when you press a barbell.

The 'wedge' is just as effective for quick moves. I use it to improve my military and law enforcement clients' striking technique and power. On my Martial Power DVD set you can see



Kettlebells

an obvious improvement in a professional kickboxer's kicks and cage fighter's punches after just two days.

Pick the slack out of your body. 'Wedge' yourself between the ground and the 'implement.' Build up tension to near maximum, then use short, pumping, contractions. Work on your 'linkage.'

Soviet boxing researcher G. Jerayan (1955) stated that the full mass of the body couldn't be put into a punch because of the amortizing effect of the joints. The force meant to be used externally is wasted internally. Steve Baccari, RKC (Russian Kettlebell Certification), refers to this waste as 'leakage.' Not only does the 'leakage' reduce the power of an athletic technique, but it also increases the stress on the joints. Replacing 'leakage' with 'linkage' (a term simultaneously coined by Steve Cotter, Senior RKC and Stuart McGill, Ph.D.), is central to my system of strength training. 'Linked' joints are 'compressed' with the tension of the surrounding muscles. The increased stiffness improves the transmission of the force up the chain with minimal waste.

After practicing your linkage and proper body position isometrically, shake out the tension and perform a couple of throws. Go back and forth between iso throws, relaxation drills, and throws.

Stretch your hip flexors, an essential component of training, as throwing with tight hip flexors is like driving with the parking brake on.

LSTJ: You referenced "shaking movements" and "pistols." What are they?

PT: Pistols are rock bottom one-legged squats with the free leg held nearly straight in front. This is the leg strength exercise of choice in the Russian special operations community. My book *The Naked Warrior* will teach you how to do it.

LSTJ: Talk about the origins of kettlebells and how you use them in training. What unique benefits do they provide an athlete?

PT: The 'kettlebell' or girya, is a cast iron weight, which looks like a cannon ball with a suitcase handle. The girya goes way back; it first appeared in a Russian dictionary in 1704. (Cherkikh, 1994) In the olden days, any Russian strongman or lifter was called a girevik, or 'a kettlebell man.' Until WWII the terms the 'kettlebell sport' and 'weightlifting' (or 'heavy athletics,' as Russians call it) were broad and interchangeable.

In the twentieth century Soviet science confirmed the common Russian knowledge: repetition kettlebell lifting is one of the best tools for all around physical development. Voropayev (1983) observed two groups of college students over a period of a few years. A standard battery of the armed forces physical training tests were used: pullups, a standing broad jump, a 100m sprint, and a 1 km run. The control group followed the typical university physical training program which was military oriented and emphasized the above exercises. The experimental group just lifted kettlebells. In spite of the lack of practice on the tested drills, the KB group showed better scores in every one of them!

Vinogradov & Lukyanov (1986) found a very high correlation between the kettlebell total and a great range of dissimilar tests: strength, measured with the three powerlifts and grip strength; strength endurance, measured with pullups and parallel bar dips; general endurance, determined by a 1000 meter run; work capacity and balance, measured with special tests.

American kettlebell lifters, or gireviks, coined the term the 'What the Hell Effect' to describe the improvements in athletic performance that are caused by kettlebells, yet are hard to explain. Read a great article by Dan John in *Hard Style*, download a free PDF from www.PowerbyPavel.com or call (800) 899-5111 to get a free copy in the mail.

In addition to various kettlebell throws, try what we call 'fast tens'; sets of 5-20 kettlebell quick lifts, especially swings and snatches, with a pair of kettlebells. There is

magic to sets of ten quick kettlebell lifts. Nine months after dropping deadlifts from his training and replacing them with kettlebell pulls, Donnie Thompson, RKC, took his deadlift from 766 to 832 lbs., unprecedented progress for a world-class powerlifter! Shortly after, Thompson won the professional world superheavyweight title.

I asked Mr. Haney, RKC, Donnie's coach, what he attributed his lifter's phenomenal progress to. Mr. Haney replied: "Kettlebells work the deadlift muscles without killing them."

In the same time frame Donnie added 100 pounds to his bench press. In barely three months he gained twenty-six pounds of muscle on a routine that emphasized kettlebell quick lifts! Mr. Haney, a 51-year-old former college champion shot putter, added fifteen pounds of muscle on the same routine.

When I taught a kettlebell seminar at the Westside Barbell Club, I asked Louie Simmons the same question. Louie said to me, "Kettlebell lifts are slower than plyometrics—slow enough to work the muscles." And you thought faster was always better!

Repetition quick lifts with the deceleration component build muscle fast, probably due to a unique combination of the muscular stress and just the right hormonal environment. The kettlebell is the ideal tool for such training.

Kettlebells can be swung between the legs. Such deceleration builds powerful hips. Don't try it with a barbell! Kettlebells can be cleaned for many reps without stress to the wrists.

Where the technique of the barbell Olympic lifts tends to deteriorate rapidly once reps go up -Russian weightlifting team members stick mostly to doubles these days - kettlebell quick lifts usually get better with more reps.

The official Soviet armed forces manual on strength training approved by the Ministry of Defense (Burkov & Nikityuk, 1985), flat out declared kettlebell training to be "one of the most effective means of strength development," representing "a new era in the development of human strength-potential." Enough said.

LSTJ: If you had to pick five essential kettlebell exercises, what would they be and why?

PT: Swings rule. Everything else is the icing on the cake. Various swings, single and double, with your hand soaped up for extra grip stress, with a 180-degree turn, etc.

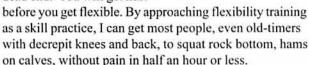
LSTJ: Is it difficult to mix kettlebell training with traditional weight training?

PT: Not at all. Dan John simply practices his throws and

kettlebell exercises in a circuit.

LSTJ: Let's talk about stretching. What misconceptions does the average athlete have about stretching?

PT: Flexibility is a skill. The skill to 'find the space' in your body. The skill to relax the muscles. Mindlessly trying to literally stretch the tissues is a dead end. You will get hurt



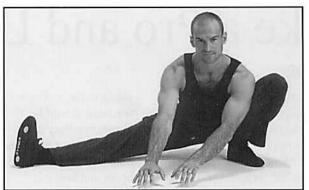
LSTJ: Can you tell us the principles behind <u>Loaded</u> <u>Stretching</u> and <u>Strength Stretching</u>?

PT: Strength Stretching teaches how to get flexible specifically for powerlifting. It is state of the art stuff, 'flexibility as a skill.' Since throwers squat, bench, and pull, it is right down your alley.

Loaded Stretching is not a flexibility regimen, but a specialized strength technique. The stretch, which should be set up to be felt in the belly of the muscle rather than in the tendons or the joints, must be intense, even painful, and held steadily for 10 sec or so. It is unclear how Loaded Stretching works. Prof. Arkady Vorobyev, (1977) who supervised the research, speculated that the external energy applied to the muscle during the stretch is somehow stored within the muscle chemically. Prof. Vorobyev cited the second law of thermodynamics that does not allow for energy to disappear, but rather insists on its conversion from one form to another. According to a more recent hypothesis, loaded stretching is 'static plyometrics' that potentiates the neural wiring of the muscle. But whatever the explanation, loaded stretching was shown to lead to instant strength gains of up to 9.4% and long-term strength gains as well (Efimov, 1977).

The original Soviet study by Mironenko (1973, 1974) used a specialized device that was later replaced in Russian gyms with kettlebells or partner resistance. The Loaded Stretching DVD shows how to apply the protocol to a variety of efforts, throws, pulls, squats, presses, etc. The effectiveness of loaded stretching is easy to test. Perform a couple of baseline throws, do a loaded stretch. Wait a few minutes, do another loaded stretch. Throw a minute later and you will see for yourself.

LSTJ: Range of motion (ROM) is so important in throwing, as in most of athletics. Is it accurate to say that a thrower can do regular static stretching away from, or after, athletic performance to increase their



Don't try this at home.

ROM? And loaded stretching should be used pre-performance?

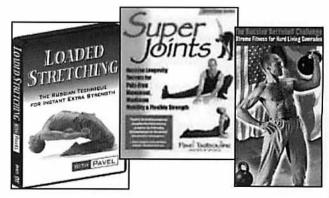
PT: Correct. Do intensive rotational, shoulder, and hip flexor static stretches after practices. A few easy stretches for the rest of the body will not hurt, but are not likely to help either. Mix isometric and relaxed stretches.

LSTJ: In Relax into Stretch you emphasize flexibility. What are your thoughts on how athletes can best improve their flexibility. What factors ultimately limit individual flexibility?

PT: In the absence of problems such as fused vertebrae and blown out knees, what limits you is your lack of skill to relax your muscles and properly align your joints. To use the example of the side split, you cannot force it by simply abducting the hips. One must be taught to tilt the pelvis, relax the pelvic floor, decompress the lumbar spine, and a few other subtle things. Then one must learn to literally force oneself to relax his screaming adductors. 'Forced relaxation,' a very Russian oxymoron. The bottom line about flexibility: it is a skill.

Details matter a great deal when it comes to stretching. For instance, isometric stretching is the most powerful static stretching method, but it is not practiced properly in the West. For some reason therapists and coaches think it is all about the stretch reflex and the Golgi tendon reflex. Wrong. There is a host of reflexes that should be engaged for a better and safer stretch: the Ukhtomsky reflex, the central pattern generators, the pnemomusclular reflex, etc. To use the last reflex as an example, if you do not passively exhale (a sigh of relief) at the most painful moment of the stretch and let your intra-abdominal pressure bottom out, you are wasting your time. *LSTJ*

Get a free catalogue of Pavel's books and DVDs from (800) 899-5111 or www.PowerbyPavel.com.



Arch Like a Pro and Lift More

By Pavel Tsatsouline

You should arch your back when pulling or squatting. Although there are a couple exceptions, such as wrestling or lifting Atlas stones, most of the time this rule stands, because your lower back is better protected that way and because you are stronger. According to the number one expert on weightlifting technique and former world champion from Russia Robert Roman, you lose up to 15% of your leg and hip strength when pulling with your back rounded. Now there is a way of teaching a beginner to arch like a pro in no time flat and making the pro arch better than ever.

One of the exercises in John Du Cane's excellent program, The Qigong Recharge, caught my attention-The Chinese Wall Squat. In order to avoid the confusion with the popular skiing exercise, I shall refer to this move as 'the face-the-wall squat.' You are facing the wall after all.

The authentic Qigong face-the-wall squat is performed rock bottom in a narrow stance (see photo 1). In addition to developing knee mobility the exercise is known to deliver a number of health benefits, all explained in The Qigong Recharge. But they are not the subject of the article; stretching for strength is.



Photo 1

If you take a wider stance and stand very close to the wall, you will notice something interesting. You will not get very deep, but the wall will force you to arch your upper and lower back (see photo 2).

And if you insist on proving me wrong and mindlessly go down, you will quickly learn that only will you fail to descend lower than a couple of inches, your forehead will hit the wall and make you fall back (see photo 3). As one of my senior kettlebell instructors Jeff Martone would put it, the drill is 'self-correcting.'

Let us review the proper form. Stand a couple of inches away from a wall facing it, your arms hanging free, your feet as you would position them for the kettlebell swing or the sumo deadlift. Without 'frogging' your knees outward or rolling on the outer edges of your feet, squat down as low as you would when performing the swing or the deadlift -above parallel. If you have succeeded, get even

closer to the wall; your forehead should be almost brushing it. Squat for repetitions and note how your spine, upper and lower, is locked in on the bottom. Reproduce this position when pulling iron.

The face-the-wall squat will not only teach you how to align your spine properly, but will also develop the required back and hamstring



Photo 2

flexibility. Have patience; it may take weeks and months. Until you can successfully keep your back arched in the face-the-wall squat, don't squat or pull.

Eventually work up to the point where your thighs are parallel to the deck. Do not go any lower for the arching flexibility purposes. Once you clear parallel, your hips will come closer to the wall again and you will no longer be

forced to arch. That does not mean that the original rock bottom face-the-wall squat is no good; it is excellent for purposes other than developing a championship back arch.

Watch the modified facethe-wall squat, as well as other stretches uniquely designed for the strength athlete, in action on my new DVD Strength Stretching.

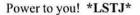




Photo 3

Dutch Treat

By Glenn Thompson

Gert Damkat modestly recalls his athletic career by saying, "I threw the javelin at a low level." Whatever his proficiency as an athlete, Damkat has excelled as a coach. He currently serves as a national coach for his homeland, the Netherlands, where he currently works with the the shot, discus and hammer.

Although his country is relatively small, Damkat can take great pride in the achievement of one of his pupils, Rutger Smith (2005 World Champs shot silver medallist).

LSTJ thanks Damkat for taking some time out of his hectic schedule to talk Dutch throwing with us.

Long & Strong: Is there any system for identifying talent in the Netherlands?

Gert Damkat: There is not a real system. At the moment we have five places in our little country where better than average talented throwers have the possibility to train with specialized throwing trainers once a week.

The rest of the time they train at their club. Talent is selected by looking at the yearly lists (ages 12 - 18), and sometimes by scouting at competitions

by the throws trainers. The trainers get paid a few hours a week by the Dutch athletics federation.

LSTJ: In the U.S., large athletic types are usually drawn to American football. Do you have to compete with other sports to get large, dynamic athletes?

GD: Our problem is a more or less traditional society. So, papa played/plays soccer and therefore his son will play soccer too. Team sports like soccer, hockey and volleyball are very popular over here. Other popular sports are tennis, gymnastics, swimming and speed skating. Track and field ranks 13th at the moment

LSTJ: Can you talk about your technical approach to each event? What technical points do you emphasize with an intermediate or elite thrower?

GD: The major difference in my approach towards a

beginner, an intermediate, and an elite thrower is in the communication. Of course a trainer has a certain standard in his head he wants his athletes to copy. In every throwing event balance, rhythm, relaxation of the upper body, a proper sequence of the movement of limbs, and a solid block should be good. But before an athlete reaches that stage, there has to be a lot of communication between him or her and the trainer. The beginner has to know why and asks for information. The elite thrower knows why and gives information.

I like to play with the way I explain things (by using metaphors, watching video or comparison with other throwers), and the moment I do that (for instance right after a throw or just before another throw), the beginner needs to learn to understand and feel what's right or wrong.

Although an elite thrower needs his memory to be refreshed now and then, it is more likely that you can improve things by asking questions. But sometimes you just have to shut up, or just give motivational remarks/support. When you analyze the movement of a beginner, it is common to compare the technique with other better athletes. The best way to look at the technique of an elite thrower is to compare good throws with his or her bad throws.



From left to right: Rutger Smith, Debby van der Schilt and Gert Damkat.

LSTJ: What is your general philosophy toward throws training, be it weight training or other types?

GD: Well, since it takes a long time to reach the top I think it is important to have (a lot of) variation in the training. So why not change the order of your exercises now and then, or try to get a personal best using your bad arm, or do a training competition with a handicap, or...etc, etc.

LSTJ: Other than Rutger Smith, who do you coach currently? Who have you coached in the past?

GD: In 1985 I started as a club trainer (children ages 8 to 12) in all events and since then I have trained several age groups up to the oldest junior groups. After this more or less recreational period, in 1993 I started a coaching partnership in throwing at the club level with my college, Joop Tervoort. In 1994 we scouted some athletes we saw at

Valerie Adams-Vili

THE OUTSIDER

By Glenn Thompson

Scan the results of any World Championship or Olympic Games for the last ten or fifteen years. In particular, examine the women's shot and discus for a common theme. For that matter, you could probably add the hammer and javelin as well. Need more of a hint? All right, let's examine the geography. Light bulb come on yet?

Quite frankly, if you're not one of a select few Cubans (Yoleinda Cumba, Yipsi Moreno, Oleysesis Menendez), then you better be from Europe, and more likely, the old Soviet Bloc nations such as Belarus, Russia, Hungary, Romania, Czechlosovakia, etc. Add in awakening giant China and a few other Western European nations, and the rest of the world pretty much could have watched from home.

One nation that has bucked that domination in recent years is the tiny island of New Zealand. Beatrice Fauiamina has been a presence in the women's discus for a decade now, capped by capturing World Championship gold in 1997. And now a relative youngster, Valerie Vili (formerly Adams) has made herself a major factor in the women's shot.

For much of 2005 Vili was ranked fourth in the world, though she is just 20 years old. No other shot-putter among the world's top 16 is as young. She won the world youth title at Debrecen, Hungary in 2001. A year later she won the World Junior title in Kingston, Jamiaca, although she was

just 17 and competing against athletes two years older. A silver medal in the 2002 Manchester Commonwealth Games and a fifth at the 2003 world champs in Paris are further confirmation of her place among the planet's elite.

Vili, at 1.93m (6'4") and 123 kg. (270 lbs.), stands as tall and solid as Ruapehu, New Zealand's tallest mountain with a still active volcanic vent. And her athletic efforts have shown her to be nearly as explosive.

Vili officially served notice last August in Helsinki, Finland, at the 2005 World Athletics Championships. She led all qualifiers with a personal best 19.87m opener (a new national and Commonwealth record), then returned a day later in the final to capture bronze with 19.62m, only two centimeters out of silver. Of the top 10 finishers, Vili was

the only one from a country without ties to the old Soviet Bloc.

Vili is currently the only woman to challenge the superiority of those countries. "I think the Eastern European countries put a lot of time and resources into their athletes. They have all these academy training camps, etc., where they get experts in to come and help them, I guess. They have always dominated the throws events, but I am climbing up there slowly."

By the union of her parents, Vili was destined to be an athlete. She was born to an English father, who at 6'6", gifted her with her height, and a Tongan mother (5'10" tall)

from whom she was blessed with her magnificent strength. She was born in New Zealand and is a proud Kiwi.

"I was born in Rotorua, but was brought up in Auckland, the largest city in New Zealand. Life here is great. I enjoy the green scenery and love the outdoors. It's a great place to live and bring kids up. I don't have any yet, though (laughs). The people are nice and helpful, and it's a multi-cultured country, big-time."

"I have two sisters and a few other half-brothers and sisters. My halfbrothers played basketball internationally. They are pretty tall."

"I am a very tall girl and I was always involved in sports somehow because I

loved and enjoyed them. I learned to use my height as an advantage."

Her first serious sport was basketball. When asked about her hoops prowess, she is modest. "I was okay I guess. I played rep teams, etc., and really stopped in 2002 when I was training for the World Juniors and Commonwealth Games. I stopped at 17 years cause my athletics took the interest, and I enjoyed it very much cause it started taking me places."

She also participated in rugby, volleyball and netball (similar to basketball).

But it would be track and field that would eventually become her sporting choice. "Simply I was the biggest kid



Valerie Vili Adams

at school and was told that I can do the shot," she recalls. "So I did and broke the school record, then went on to the school area champs and broke that record in bare feet. Then that's where it all really started."

Given her long levers, she would seem to be a natural dual threat with the discus as well. She tossed platter 54.34m, the New Zealand under-18 record, without doing any particular training for it. "The discus was a fun event for me, but it didn't really interest me at all really. I liked the heavier implement I guess. I started with the shot first and just stuck with it, but yes, the discus is more fun for me. Hey, who knows?"

Given her impressive frame, you would assume Vili is strong. You would be correct. In the weight room, Vili can move some iron. She's posted best of 140 kgs. in the bench, 95 kgs. in the hang snatch, and has cleaned 130 kgs.

Despite her rapid rise to elite levels, financial concerns are part of her existence much like in the U.S. "Unfortunately athletics is not really big here in New Zealand. The financial support is not that great really. That's why I have a job. Yeah, it's very difficult to make ends meet financially."

"I am an Assistant Sports Coordinator at Macleans College (part time) and loving it," she continues. "I just manage my training around it. It's good for me to have another distraction in my life apart from athletics to take the focus away a tad."

Vili's career has been guided since age 14 by her coach, Kirsten Hellier, a former Commonwealth Games javelin silver medallist for New Zealand. "My coach and I have a very good relationship. We are very close. She is a great coach as well as a friend. I have been with her since the



very beginning and it has been great to know and train with her."

Vili has chosen to employ the glide technique. She simply states, "I have always done the glide and I know this is what works for me." The glide allows Vili to utilize her prodigious power. She reports stand

throw distances in the 18m range in competition.

When asked how she deals with the competitive pressures of a World Championships or Olympics, she says, "I just focus on what I have to do to throw well. I do a lot of visualization. I deal with the pressure and nerves out on the field, putting it all into my throw. I get nervous, but it's good nerves. I just concentrate on me and pretend I am the only one out there."

Of her career thus far, "a low light was the Olympics, (finished eighth with a put of 18.56m), but that soon changed when I got home and realized it was my first Olympics and I was 18 years old. My greatest highlight so far is winning the bronze medal in Helsinki. That was just a great feeling and moment for me."

Valerie was married in November of 2004 to Bertrand Vili, an athlete from New Caledonia competes for France (5th at the World Junior Champs in 2002 in the shot, currently throwing the discus). "Married life is cool. Enjoying it heaps, and he understands how athletics operates and how much time needs to be given to it."

Her time apart from training and work is spent "just chilling out and enjoying the time away from these things in my life. I love going out with my sisters and hanging out with my nieces."

Three years ago Vili took a shot at the Highland Games, with almost predictable results. On January 1 and 2, 2003 she shattered FOUR world records at the Waipu Highland Games. All four marks had been owned by American Highland vet Shannon Harnett, and missed a fifth by a half-inch.

Those records were:

Event	Mark	Broke Record By
14-lb Highland Stone	41' '7 1/2"	1'5"
16-lb Caledonian Hammer	99'1"	5'1"
14-lb Weight for Distance	85' 101/4"	2'5"
12-lb Sheaf	26'3"	4'2"

Vili's mother, Lilika Ngauamo, died of cancer in September of 2000, and did not get to enjoy her daughter's World Junior title. "I had a good relationship with my mum," reflects Vili. "She supported me in my athletics as much as she could. Her passing left a huge gap in my life and I was a bit lost for a while. Luckily I gathered myself together and continued with athletics cause it was a way of expressing myself with all that was going on."

No doubt Lilika would be very proud. *LSTJ*

A Masterful Thrower

By Lane C. Dowell

The passion for Masters track and field burns deep in the heart of George Mathews. The venerable Mathews lives the credo of one of the world's greatest competitors, the fiery Winston Churchill, who once urged his countrymen to continue to wage the battle against overwhelming odds by giving their "blood, sweat, toil, and tears."

Recently, the <u>Long & Strong Throwers Journal</u> spent some time chatting with the USATF Chairman of Masters Track and Field and gold medallist at this past summer's World Masters Athletics Championships in San Sebastian, Spain.

Long & Strong: When and how did you become involved in Master's track and field?

Mathews: I was with a friend in Seattle one Saturday in 1990 when we were passing Husky Stadium and noticed there was a University of Washington track meet going on. We decided to stop in for a while. I saw the hammer for the first time since leaving St. Johns University in 1966, where I was a scholarship hammer thrower. I fell in love all over again. It was pure passion. I asked Ken Shannon (then the University of Washington head coach) if I could throw with his athletes, and he said only if I would work with his friend Ken Weinbel, the former Dartmouth coach. It turned

out Weinbel lived within a mile of me in West Seattle. He had already been involved in Masters track and field and told me all about it. The rest is history.

LSTJ: What have been the positive benefits of competing in Masters track and field?

GM: There are many. First, is the camaraderie, which is much stronger than it ever was in college. It's almost a fraternity. We all have passion and love what we are doing. We're glad to be there.

The healthy lifestyle is probably second. I think many of our members wouldn't be in the shape they are in today without Masters track and field. Competition keeps us sharp.

The travel is fun as well.

LSTJ: Your competitive focus has been in the throwing events. What are your current marks/goals?

GM: This has been my best year ever. I won my first World Masters Athletics Championship medals in San Sebastian, Spain with a first in the weight and a second in the weight pentathlon. Also, I placed 4th in the hammer and 5th in the shot.

I also won the International Masters Games hammer and weight in Edmonton, Alberta and was U.S. Champion in the hammer and weight pentathlon as well.

My best marks were...

	Indoor	Outdoor
Weight (20lb.)	20.58m	20.55m
Super Weight (56lb.)	8.40m	8.18m
Hammer		52.81m
Weight Pentathlon		4130 pts.

* Ranked #1 in US Outdoors in all these events

LSTJ: What is your year-round training program for physical conditioning and technique? Do you give more attention to one over the other at different times of the year?

GM: I wish I had some secrets to share. I don't find myself to be able follow the cycles in lifting and throwing that the elite throwers practice.

I believe that practicing technique in the throws to be most important. If it's a choice between throwing and lifting, I throw. Some are surprised at the amount of throws I take. Generally, 30 or 40 throws a session, every other day, two to three times a week, with weight lifting in between. Usually, I get two days off a week. Then there are forced vacations because of the holidays, weather etc.

I usually throw three different weights during a practice, one up and one down, starting heavy and

finishing light. I am a disciple of Harold Connolly and Larry Judge. Just keep working their basics with a little of Stewart Togher and Lance Deal mixed in. I have ventured into four-



Mathews was victorious in Spain in 2005.

turns a lot, but haven't been as confident in competition.

I throw the weight with and without a wind, and I throw puds. I do turns in my garage with 25 lb. weight in bad weather and replicate the specific motions on my Freedom Machine.

My weight lifting is old fashioned. I do upper body one day, starting light with snatches from knee high supports (I have a flattened L5 which prevents me from pulling from the floor), and working into power cleans as the weight increases. I also do shoulder shrugs and very fast close grip snatches on the Smith Machine.

On alternate days, I do lower body, front and back squats on the Smith Machine, toe raises on a machine, and adductor and abductors machine work.

Overhead squats are something I need to work on for core strength. The Freedom Machine helps a lot with core strength.

My philosophy is fast reps are more important to older people than heavy weight, and don't lay off too much because it takes too long to recover. I am starting to work on a stationary bicycle in the gym, fast with a low seat to get good leg flexion. I am always worried about the loss of fast twitch muscles. Use them or lose them.

I would like to add something about flexibil-

ity preservation as we age. I have unfortunately observed that many of our skilled and talented throwers, as they reach their late 60's have a tendency for their joints to stiffen and basically take them out of competition. Maintaining muscle mass through weight training is not enough. Heavy weight training in older throwers will hasten the stiffening process. Throwers need to incorporate flexibility exercises like yoga to their routines to maintain flexibility.

Also, cardio vascular considerations are very important. Exercises like biking or swimming that maintain a higher heart rate for a sustained period of time, preferably up to 30 minutes three times a week would be beneficial. Even though we are involved in vigorous activity, our cardiovascular systems can be clogging up. We know a few of our fellow throwers who have had successful bypass surgeries; most tell us it's not a good way to go. We want to stay in the sport for the long throw.

Masters Track and Field, what changes have you attempted and how have they affected the sport? What still needs to happen for the betterment of "athletics for the aging?"

GM: I was re-elected Chairman of USATF Masters Track and Field for a second 4-year term in Portland last December. I think the **implementation of the Games Committee** during my term has helped us run much better national championships.

Also, our initiative to create more clubs and club scoring at championships may be my biggest legacy. I believe clubs are the real future of Masters track and field. We have seen examples of what Seattle Masters has done and what I did in San Diego with the Team Thor series. We need clubs to put on meets, train athletes, and develop wonderful camaraderie.

There are many opportunities to increase our numbers with

this aging population we have. One of the biggest challenges is communication. We have just recently nearly completed a strategic plan to set the course in achieving greater numbers of athletes and competitions. The lack of funding is our greatest roadblock.

LSTJ: One program that you helped institute was pairing Masters throwers with our youth to coach the hammer. How has that program developed?



Mathews has built his cage on his property in Idaho.

GM: Unfortunately, I don't believe that it has worked that well. It is a great idea, but implementation is difficult. Our Masters throwers are independent folks who many times hardly have enough time and a venue to get this done.

However, there are some pockets of success. We shouldn't give up. I am looking to implementing a model of the Washington state hammer experience here in North Idaho. There is no hammer facility in North Idaho, so I have purchased 10 acres of land in the Spirit Lake region and built my own hammer field, complete with cage and storage container. I am probably going back to work to get some money for an indoor building as well. The cage is built with trees from my forest, and I used chain link fencing.

Now I need to attract high school athletes who want the experience. This is my challenge. I could use some help in this area.

LSTJ: In Masters track and field there seems to be a unusual blend of athletes who cover the spectrum of experience in athletics. Former Olympians lock horns with "has- beens" and "never- wases." What makes this sport so attractive and unique to such a mix?

GM: I believe the aging process is a great equalizer. This is almost a race of who can stay healthiest the longest. I see much of our growth coming from elite athletes who don't let their egos stop them from continuing at another level

Also, adjusting the throwing weights is very important in keeping throwers involved. We are presently working on introducing a 44 lb. weight for the 50-69 age group in place of the 56 lb. weight. I love the 56, but it is even getting heavy for me and doesn't help technique, even though I use 3 turns. Hopefully, this lighter weight will encourage more throwers to throw the super weight. We are also going to continue the 56 lb. weight as a separate event for under 50 and all the other crazy older folks.

LSTJ: George, will you share your competitive highlight and your most memorable track and field moment outside the competitive arena?

GM: Winning the weight throw in San Sebastian was my Olympics. The guys I beat have beaten me for many years. It was a wonderful feeling.

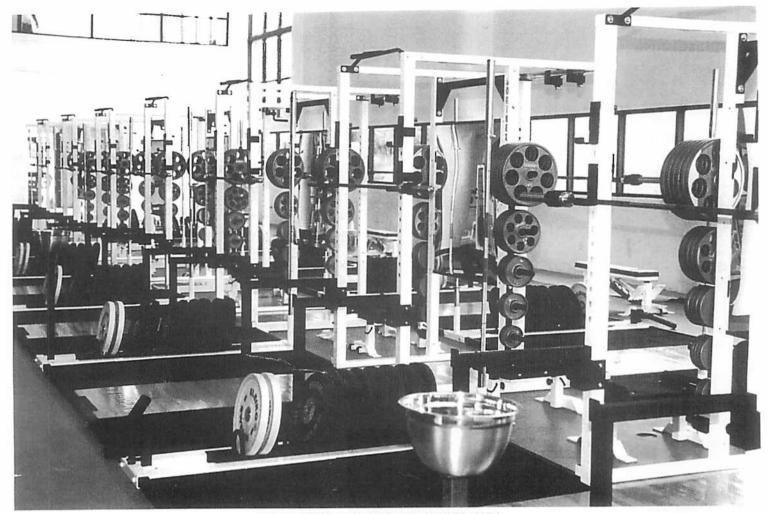
My most memorable moment was witnessing Lance Deal winning his silver medal in the '96 Olympics in Atlanta. What a competitor! Watching his wife giving him encouragement when he went to the rest room during competition, seeing him suffer despair when he didn't think he made the finals, and then rebounding from 9th place to come in second. That was competition.

LSTJ: Is Masters track and field truly a fountain of youth where one can hardly wait until their next birthday? If so, why?

Actually, the birthday most us wait for is the one that comes every 5 years when we go into another age group and are the youngest. As we get to the top of the bracket it becomes much harder to keep up with the younger athletes.

George Mathews epitomizes Masters track and field. He's part of a growing fraternity that warmly embraces new members in search of the long throw and the fountain of youth. *LSTJ*





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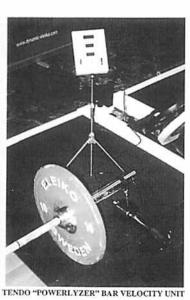
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SORINEX BRAND BUMPER PLATES

Talkin' Hammer

By Glenn Thompson

Mohamad Saatara is now in his fourth year in Flagstaff, Arizona as Associate Head Coach at Northern Arizona University. Sataara coaches the throws, vertical jumps, and multi- event athletes. In his first three seasons at NAU he coached 16 All Big Sky Conference athletes (indoor and outdoor); including indoor men's and women's weight throw, hammer throw, and shot put Big Sky Conference champions. He also had 16 athletes qualify for the NCAA Regional meet.

Two of his more prominent athletes include Karim Chester and Dana Posey. Chester (weight and hammer throw) was one of the leading NCAA hammer and weight throwers for most of his sophomore season and finished with a fifth-place national finish in the weight throw at the 2005 Championships. Dana Posey, at only 5'6" and the body of a point guard, is one of the most dominant women throwers in the Big Sky Conference. She has won three Big Sky Conference titles, along with five other All Big Sky Conference finishes, and currently holds the NAU record for the hammer throw. Under Saatara's tutelage, several all-time NAU records have also been broken; including the women's hammer record throw record which has been increased every season under his guidance. Athletes under his care also hold the men's weight and hammer record along with the

women's indoor pole vault record.

Saatara was no slouch himself as an athlete. He is a former All-American at Cal State- Los Angeles, where he set the Iranian national record in the weight throw in 1997 with a toss of 20.06 meters (65 feet, 9 inches). He finished second in the hammer throw at the 1995 Division II national championships. Saatara is a USA Track and Field Level II certified coach.

I've come to know Mohamad through this publication and have learned a great deal about his passion, the hammer, from him. He has been a presenter at the National Throws Coaches Association the last two years, both of which I attended. I had previously asked Mohamad if he could submit a technical piece for LSTJ. When he offered to do an interview, I jumped at the chance to ask whatever I wished!

Long & Strong: If you had a young hammer thrower, say a sophomore in high school, what component/concept of the hammer throw would you emphasize the most?

Mohamad Sataara: I would greatly emphasize learning to accelerate the hammer properly. This should be done

through teaching the thrower the concept that each throw is one seamless movement from the initial winds to the release. To establish this we can use rhythmic exercises to teach the different parts of the throw, especially the footwork. I think this is the most important factor in becoming successful in this event.

With the hammer throw the coach has to take a long-term approach in developing the athlete. I don't think it is very important what weight hammer the thrower starts with to be successful with as long as he or she learns to accelerate the hammer properly using the feet, legs and torso. Over

> time as the athlete develops physical abilities, he/she will be able to replicate these results with the competition weight hammer. Also, a major factor for success is the athleticism of the thrower. The more athletic and versatile the thrower is the easier the learning process will be.

LSTJ: Talk about your approach to footwork. What are the key technical factors? How important is maximizing your time in doublesupport?

MS: I place footwork at the top of the list. Footwork has great effects on everything from

posture and balance, all the way to the ability of the thrower to maximize radius. A thrower can generate force and accelerate the hammer only if he/she is in a balanced position against the ground with both feet. This can only be achieved with proper footwork. In rotational events the center of mass has to be kept on, or near, the axis of rotation. The thrower can't have any great effect on the implement until this requirement is met, and the only way in which this can be done is by being able to apply force through the legs and feet. During each turn of the hammer throw the thrower goes through a double support phase when both feet are on the ground and a single support phase when only one foot is on the ground. Because the hammer is pulling the thrower during the single support phase, the athlete is unable to actively effect the hammer without losing balance and falling out of the turn. There are some studies (DePenia, et al.) that show that some throwers are able to effect the hammer by manipulating the center of gravity against the hammer during the single support phase, but this is a passive phenomenon, and cannot be greatly influenced by the thrower and is a result of the thrower changing body positions to maintain

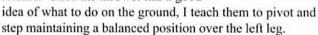


Mohamad Sataara

balance. So it is important for the thrower to land the right foot as soon as possible, to be able to regain balance and continue to accelerate the hammer with both feet. Another effect of landing early in each turn is that the thrower lands with the hip axis in front of the shoulder/hammer axis. This generates internal torque through the musculature of the torso and hips. This is also used to greatly accelerate the hammer into consecutive turns and releases. Thus the longer (not in the sense of time, but ratio between double and single support for each turn) the thrower is on two feet, the more stable and balanced the throw will be, the longer the thrower can accelerate the hammer. Longer double support phases also allow for a more balanced and stable release from which the thrower can generate greater final velocity for the implement.

I teach the foot work in two parts after the thrower has learned to wind the hammer and has developed a basic

release. First, I teach the thrower what needs to be done during the double support phase. I use drills to teach pivoting movements of the right and left foot together, greatly emphasizing the pushing action of the right leg and the pivoting action of the left heel with a bent left leg (the degree of bend in the legs is not greatly emphasized because it is dependent on the athletes strength levels). I use puds and power balls to teach this. For example we do two or three pivots and release. Once the thrower has a good



From here we start with drills that break down the turns into two parts; the initial pivot on two feet, and the step into the next turn. A very good exercise is the heel pivot, step-toe pivot, step while moving both feet together. From here we progress to turning with the hammer on the ground, and then to doing wind-turn-wind drills where we work on learning to master the entry. We always conclude training sessions with one, two and three turn throws.

I should mention that I don't have any preference on what part of the right leg lands during the turns. Throwers can land on their right heel, flat or ball of the right foot. I greatly emphasize that regardless of how they land, they should conclude the action of the right foot with an active push from the ball of the right foot.

LSTJ: You've talked about throwers competing with a simpler and more efficient technique. Can you expand on this?

MS: Right now there is a very detailed understanding of what is required to be successful with the hammer. This

basically boils down to three main factors: (1) duration of the throw spent on the ground with both feet when the thrower can actively accelerate the hammer (the thrower lands "in front of the hammer"), (2) the radius of the path of the hammer throughout the throw, and (3) the posture of the thrower during the throw. As long as these three factors are observed, a successful hammer throw can be achieved.

Another big factor for success in field events in general is the ability to replicate technique successfully, especially in high stress situations. Obviously it is much easier to replicate simplified movements that are more "natural" and athletic. In general, what we see is that these throwers establish their throwing movement in the initial entry, and for the rest of their throws they strive to increase the time they are on the ground and actively accelerate the hammer.

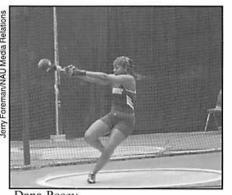
LSTJ: What are the most common technical faults you see in (1) novice and (2) veteran hammer throwers? How can these faults be addressed?

MS: The biggest mistake that novice throwers make is to initiate turns using the upper body and especially the left arm and shoulder, leading to a dragging/pulling action against the hammer. I think this may be due to several factors; the major one being that the thrower has not

been taught to properly accelerate the hammer with the right side of the body (right handed thrower). I think a lot of the time novice throwers are pushed into throwing hammers that are too heavy for them too soon. Another factor may be that the thrower doesn't have the physical capability to perform the right movements because they haven't spent enough time developing the physical abilities required for throwing the hammer. Finally, I believe that there is a psychological factor here. Novice throwers may feel that to accelerate the hammer they have to turn their body very fast and this also leads to technical breakdowns and faults.

I think over time a lot of veteran throwers seem to go away from continuing to develop and advance their technique as they develop new physical abilities or they develop a "comfort zone" with their throw. This leads to stagnating performances. I think throwers should always look for some area of training and throwing that they can improve upon so there is always a feeling of positive movement in training and this leads to improving performances.

LSTJ: What exercises provide the most event specific power?



Dana Posey

MS: This can be a complicated question. First we have to define what specific power is. In my opinion specific power is a combination of how much power the athlete can generate in movements similar to the throwing action and the skills which are required to incorporate this ability in the throw using the competition weight implement. The best exercise for developing event specific power is throwing hammers of various weights and lengths from a variety of different turns (release only, and 1 to 6 turns). The key factor here is that the thrower should maintain the same technique which is used when throwing the regular hammer. If the implement being used is thrown with a technique that is substantially different than the regular hammer, then we have to make adjustments to the implement.

We can manipulate what area we want to develop by manipulating the type of hammer that is thrown. For example, lighter or shorter hammers can be used if the thrower needs to develop speed characteristics, or to learn and develop the ability to generate force against the hammer. If the thrower needs to develop and train the musculature involved with the throw to generate more force, we can use heavier hammers that are shorter or regular in length. Generally, I have found that when using heavier hammers we needed to shorten the hammers so the technique is maintained. The key for

using varied weight and length hammers is for the thrower to maintain the same technique and rhythm he or she uses when throwing the regular hammer.

Karim Chester

Outside of throwing hammers I have found that the best exercises for developing event specific power are throwing kettle bells, puds, and medicine balls. These devices can be used to perform twisting and releasing exercises, core exercises, and imitation turns. Other exercises that really help in the development of specific power are single and multiple jumps using one or two legs, Olympic lifts such as close grip snatches, rhythmic pulling exercises (cleans, snatches), and twisting exercises with bars, dumbells and weight plates.

LSTJ: To a hammer thrower, is there any value in throwing the weight?

MS: I think the weight is a useful tool as long as we keep in mind that the weight is also a hammer and the thrower does not change his/her technique while throwing it. I have found that using the weight can be very effective in initially teaching the turns, especially for men. Because of its length, it is very easy to control and manipulate.

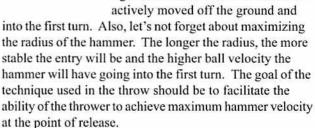
LSTJ: Can you give us some examples of elite throwers who you feel best maximize their technical style?

MS: I think some great examples from the past are obvious ones: Youri Sediekh, and Sergey Litvinov. For teaching purposes, I use these guys a lot. I think their technique is very straight forward and easy to understand. Other throwers I think maximize their technical style are [Koji, Japan] Murofushi, [Tibor, Hungary] Gescek, [Yipsi, Cuba] Moreno, and [Olga, Russia] Kuzenkova. I use a lot of video to teach technical points, and also as a good source of motivation.

LSTJ: How much of the hammer's final velocity is generated during the winds? How much additional ball speed can be added during the turns?

MS: Exact numbers for the velocity of the hammer in the entry and turns for a particular thrower is different depend-

ing on their physical characteristics and abilities. This will dictate the amount of speed required for the entry, and how much ball speed the thrower can generate in the consequent turns. Physical abilities and proficiency will also dictate the number of turns the thrower will need to use to maximize his or her throw. The general rule of thumb for the entry should be that the hammer must be moving fast enough to allow it to pull the thrower into the first turn so the right side of the thrower is free to be actively moved off the ground and



LSTJ: How does the thrower achieve maximum velocity out of the winds? And then, how do they transition that speed into the turns?

MS: I think the key for a thrower should be to establish his or her movement patterns in the winds and entry. This consists of (1) maximum controllable radius, (2) a coherent and balanced position from which the thrower can execute turns, and finally (3) the hammer/thrower system should be established in a way that the thrower can feel the hammer.

LSTJ: At what point should a thrower consider adding a fourth turn? How do you teach the toe-turn?

MS: I think performing throws from 3 or 4 turns has more to do with the thrower's abilities to accelerate the hammer. I try to identify each athlete's abilities early on in the learning process so we can decide what type of approach

we should take. Most throwers I have coached benefit greatly from the 4-turn approach because it allows them more time to accelerate the hammer. I don't approach the first turn of a 4 turn throw any different than the first turn of a three turn throw, even if the thrower is doing a toe turn. I have also had athletes who were successful with the 3-turn technique because they were able to get maximum velocity with the hammer very quickly. I can use the following analogy to describe what I mean: Let's take long jump for an example. Some long jumpers reach their maximum velocity faster than others who may need more run up to get to maximum speed for the take off. The faster jumpers will use a shorter run up when compared to slower jumpers. Also if a jumper is using a shorter run up but can benefit from a longer run up then the length of the run up can be increased.

I have also had athletes who were successful with the 3-turn technique because they were able to get maximum velocity with the hammer very quickly. With the 4-turn technique I generally stay with 4 heel turns, but when I have someone who needs to use a toe turn, I take the same approach as I do with a regular turn, except we bypass the initial entry with the heel turn and put the weight of the left

foot over the toes and emphasize maintaining the radius of the ball.

LSTJ: Do light hammers have a special value in teaching speed to a hammer thrower?

MS: I strongly believe in using light hammers for teaching speed. The main keys to remember while using these hammers is to keep the technical execution of the throw the same as the normal weight hammer and to make sure that the athlete is executing the throw at higher and higher velocities.

LSTJ: We've seen successful hammer throwers of all different physical types. What are some common qualities you look for when identifying talent?

MS: I think the most important physical characteristics to look for when identifying talent are coordination of the feet and the ability to generate force in a rotational manner, athleticism, and flexibility. Another factor that I believe strongly in is the most important: a desire to succeed. *LSTJ*

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Warm-Up Strategies For Throwers

By Glenn Arnold, Emory University

How you spend your time getting ready to throw can be the difference between a good meet and a mediocre meet. Here are some strategies that will help you prepare for competition. Some of the strategies are as much about what you SHOULD NOT do as much as they are about what you SHOULD do. First of all, always keep this in mind, this time is about preparing your body and mind to throw, physiologically and psychologically. Physiologically, the warm-up will increase heart rate. The increase in heart rate will increase core body temperature, which leads to more elasticity of muscle fiber. This is very important to the throws. Psychologically, the athlete will experience increased amounts of focus and proper level of arousal. Again, both are essential to throwers. Here are a few concepts/strategies to consider for throwers who wish to be more effective during their pre-competition time.

Timing

You need to make sure you give yourself ample time to get ready. Keep in mind you want to allow for a full warm-up. (Stretching, form running, warm-up throws) You should develop an internal clock that tells you when to begin your warm-up. Don't expect the coach to prompt you. More often than not, the coach will have a number of things to tend to simultaneously during a meet. It is likely that administrating your warm-up will not be one of them. Also, at larger meets the window of time the circle is available for throwing warm-up is usually limited. Get all of your out-of-circle warm-up completed and when the time comes, you will be ready for your flight's circle warm-up time.

Recommendation: A good gauge to begin your warm-up is at the onset of the flight prior to your own. If you are in the first flight; 20-30 minutes before the competition begins is a good starting point.

Intensity

Bottom-line. DON'T WIN THE WARM UP. Throws out of competition don't count. Coaches and other athletes get tired of hearing a thrower say something like, "You should have seen my warm-up; it was 'blank' feet." That is nice, but you wasted your "good throw" during warm-up. This is exactly what we want to avoid. You don't have to go all out, or wait till you get a "good one" before you are ready. Look at results, a large percentage of throwers will have their best throw on their first attempt. Therefore, the "just one more" mentality will do more harm than good. Be confident, know that you are just warming up, and you have many long throws waiting to unleash.

Recommendation: 80-90% of maximum effort. This means perform the throws correctly, but do not exert maximum effort. Concentrate on technique. This is important for two

reasons. First, save your energy for competition throws. Secondly, if you warm-up at 80-90% you are less likely of hitting a huge warm-up throw. It is hard to duplicate a huge warm-up throw in competition. Psychologically, that throw is going to frustrate most throwers. Also, if you warm-up at 80-90%, then you have the mental edge of knowing you have not given your maximum effort.



Glenn Arnold

Volume

Remember, we are just getting the body prepared to throw, Don't throw too many during warm-ups. Some throwers will go out and it looks as if they are getting a full practice in before the meet. They will attempt 10, or more, full 100% effort throws. Many times these throwers are trying to work on some technical aspect of the throw. Warm-up time is not the time to work on technique; the hay is in the barn at this point. Again confidence, even if your technique is not flawless; remain confident with the technique and skills you do have. Practice time is where you want to make adjustments and retool or refine your technique, not during the warm-up prior to the meet.

Recommendation: Keep your event specific throws brief. Limit yourself to 5 to 8 throws. (This includes standing throws, South Africans, full throws, etc.)

Focus

There are many things going on during your warm-up time; ranging from a previous flight being completed to that huge guy from State U. bombing warm-up throws out of the sector. It could be a lazy athlete on your team looking for company being lazy. Apathy loves company. Do not be distracted. Know what you have to do to get ready. Stay on your path. Develop a routine to increase your level of comfort and focus. When you make it to the circle for warm-up throws, use the time to familiarize yourself with any visual cues you will use during competition.

Visualization

Finally, think about your event. Visualize your technique from both a first person (*internal*) and third person (*external*) perspective. Mental practice, or what I call "mental reps," can be an effective tool in preparation for the throws. Internal imaging is done by the athlete visualizing the skill from within while performing a skill. Think about the internal feedback. (*How much knee flexion do I have, where is my center of gravity, when do I aggressively extend my hips?*) External imaging is done by the athlete visualizing the skill as an observer. Ask yourself similar questions from an outside perspective.

(What does my movement look like? Am I in the correct position? Did I get separation between my upper and lower body?) These thought processes can be useful at any point during training, but certainly prior to competition.

Concluding Remarks

In a sport of inches, EVERYTHING matters. Do not dismiss the importance of an effective warm-up. It could be the difference between victory and defeat. As indoor season quickly approaches, try to keep these concepts in mind when you, or your athletes, are preparing for competition. *LSTJ*

DAMKAT (continued from pg. 31)

a local meet and that was the start of a real throwing group. The most successful athletes where Ilona Rutjes (57.83m with the discus this year for the University of Arizona), who threw 56.12m with the discus as a junior (1999), and Rutger Smith. At the moment I am still active as a club trainer in Groningen, training athletes of different levels. Among others, my girlfriend Debby van der Schilt (born 1981) who threw 65.79m with the hammer last year, but was injured this past season, and her sister Nicky (born 1991) who threw 56.92m with the 3kg hammer this year. I

helped Chiel Warners (decathlon) with his shot put and discus (fifth at the Olympics in Athens), and since March of 2005 I train talents in the shot put and discus at a so-called local development center in Zwolle.

I have been national coach for shot put and discus three years now (16 hours a week), and coördinator for talent development for the four throwing events. So over the last years I trained and coached nearly every talented shot putter and discus thrower in the Netherlands at least several times.

Besides Lieja Koeman [Tunks] (I didn't train her) and Rutger Smith, the most talented athletes in the Netherlands at the moment are Erik Cadee (born 1984; 60.27m discus this season) and Melissa Boekelman (born 1989; 51.80m discus and 16.18m shot put). [You can see the Dutch athletics lists at: www.ranglijsten.tk]

I give courses in the four throwing events and sometimes a clinic.

Apart from the above mentioned jobs, I work as a substitute teacher (6.5 hours/week) at a school for children with ADHD and behavior that makes them unwanted at regular educational institutions. *LSTJ*

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CREATING TOMORROW'S OLYMPIANS

LOOKING TO THE FUTURE

By Rob & Mary Lasorsa, Founders- National Throws Coaches Association

Participation more than doubled at the 2005 NTCA Conference from 2004. We had approximately 489 registered participants; 135 special guests (Hall of Fame inductees, news media, clinicians, and other guest speakers and invited guests); 85 or so USATF officials and elite athletes involved in the Elite Athlete Throws Summit; 75 Volunteers; and another 60 people or so involved with the vendors.



Rob and Mary Lasorsa (center) were on top of everything in Columbus.

NTCA membership tripled during 2005. The inaugural NTCA Thrower's Hall of Fame class and ceremonies was, in our opinion, probably the greatest NTCA accomplishment during 2005. Mark Heckel has done a great job as the NTCA Hall of Fame Director.

We're also excited about:

- The development of the NTCA Throws Safety Certification curriculum (Mark Heckel and Tony Naclerio)
- NTCA web site visits has increased 10 fold in 2005 (Tim Corey - NTCA Webmaster)
- The continued development of the numbers of NTCA regional, state, county, and league chair man and volunteers
- The production and release of several NTCA educational DVD's and Books:
 - Ø 2006 NTCA Coaches Handbook
 - Ø 101 Shot Put Drills Book
 - Ø 101 Discus Drills Book
 - Ø 101 Hammer/Javelin Drills Book
 - Ø The Complete Throws DVD (this DVD contains over 7 hours of information on the throwing events)

The NTCA has also provided close to \$3,000 in scholar-ships for student athletes entering college and \$2,000 in scholarships to students entering graduate school in hopes of becoming collegiate throws coaches. The NTCA has also helped with the purchase of equipment for our emerging elite athletes and several elite athletes that did not acquire sponsorship in 2005. The NTCA has also made donations to state high school track and field coaching organizations. In addition, the NTCA has donated money or equipment to several track and field coaches displaced by Hurricane Katrina.

The NTCA continues to support the brave members of our Armed Services. The NTCA has made donations to several organizations that specifically work with families who have had a death of their military spouse, father, or mother; and to organizations that work with military members who have been permanently injured in the current war on terror.

Next year's NTCA Conference will again be held at the Columbus Marriott Northwest hotel in Dublin, Ohio. The dates are November 10th - 12th, 2006. We will continue to expand on our clinic sessions and

Hall of Fame ceremonies. We will again offer the NTCA Throws Safety Certification course for coaches. The clinic will increase its number of vendors and will also have more hotel space for additional sessions and meetings. Coaches Choice Videos will be professionally filming every session next year. The NTCA owes a great deal of thanks to Gerry McEvoy of www.macthrowvideo.com and Herb Fitzer of PhotoFinish for their video and photography work at the 2005 Conference. Gerry does a tremendous service to the NTCA by allowing free downloads of 2005 NTCA sessions and Hall of Fame Ceremonies on his web site. Speakers for the 2005 NTCA Conference will be announced in the near future.

(4) The NTCA has announced that the *Long & Strong Throwers Journal (LSTJ)* produced by Glenn Thompson will become the "Official Publication" of the NTCA. When current members renew their memberships or coaches, athletes, officials, and fans become new members of the *NTCA* they will automatically receive a subscription to the *LSTJ* as part of the many other membership benefits offered by the NTCA.

In 2006 the NTCA will have additional "Regional" clinics for athletes, parents, and coaches - sites and dates to be announced. We have announced that the second annual East Regional Throws Clinic is on April 23, 2006 at Brick Township High School in Brick, New Jersey. The clinic director is Joe Napoli, NTCA Mid Atlantic Regional Chairman. Joe can be contacted at ntcanj@optonline.net Information is also posted at www.nationalthrowscoachesassociation.com Clinicians will include Joe Napoli, Matt Ellis (NTCA New England Regional Chairman), Bruce Van Horne (NTCA Vice President), Gary Aldrich (NTCA Vice President), Tom Petranoff (Former World Record Holder - Javelin), and Rob Lasorsa

The NTCA is currently in negotiations with several other groups for several major projects in 2006 and 2007. These projects will be announced as soon as everything is finalized. *LSTJ*

IN A CLASS OF THEIR OWN

By Mark T. Heckel, NTCA Hall-Of-Fame Director

I think that George Woods said it best when he said how happy he was to be inducted into a Hall of Fame where people actually know what a shot put was!

While throwers have been part of the USATF Hall of Fame, Rob Lasorsa felt that we needed to recognize throwers as throwers - show a little love from the throwing community, since we rarely get any from the greater track and field world. Rob contacted me and asked me what I thought about the idea. Naturally, I thought it was a great one!

He floated a list of names, with some initial criteria - World or Olympic record holder, Olympic medallist, alive and retired at least 15 years. Granted, it was tough to decide on the charter class, but when you look at the list, I don't think anyone could have done any better. while we could have had a larger group, we felt that it was best to keep the classes small and intimate - so that we could tell the story of each individual and give them their due.

I have to admit - I was in awe of this first class! To meet and introduce these individuals was a true honor and pleasure. I think the one person who made the biggest impression on me was George Woods. I had dinner with him and his wife on Saturday night, and really got to get a feeling for the man. I didn't know a great deal about him, but as the night wore on, I really came to respect him.

In many ways, Woods is the forgotten shot putter. He came after the hey-day of O'Brien, Dallas Long, Ralph Neider and Matson; was the first American to not win the Olympic gold; only set one world record (indoors);and was overshadowed by the cult of Feuerbach and Oldfield. He really got lost in the shuffle. But when you look at what he did, and how he lost the gold medal by 1 cm, it's a great story. And that's what we need to tell to our young throwers - the stories of those whose legacy we inherit.

I would like to see the NTCA HOF be about the people, the stories, throwing, training and achievement. Far too often we hear of the achievements, but we don't' know the stories of how they had to work to get to that level. Oerter, practicing with two towels as his incentive. Connolly, being pissed at the Russians and others who didn't take him seriously. Wilkins, who had perhaps the greatest eight days in the history of the sport when he set 4 world records. Schmidt, who was a prodigy that never struck gold, yet held the world javelin community at bay for 10 years. Matson, who was perhaps the best all-around athlete since Jim Thorpe up

until his time. I want the HOF to be about the people and how they got there – not just that they threw far.

We are at a crossroads in throwing, I believe. Our junior program kids are as good as ever, as evidenced by our Junior Pan Am team results. But we need to continue the support. We need to continue to cheerlead, and we need to get more attention to the throws. When I look at the quality of the competition at the collegiate level, after the first tier, it drops off badly. I see kids at meets who can't throw the weight 50 feet. And fewer who can throw the shot over 46' or 47'. The ability may be there, but the coaching, the enthusiasm and the desire to compete, well, seem to be missing. Reward me now; I don't want to have to work for it. Luckily, the young throwers are hungry and anxious.

I thought that the NTCA conference was super. I sensed some real enthusiasm in the group, and the clinicians were super. We need to generate that "electricity" in the throws. Adam Nelson is trying to do that in his own way, but we need the personalities again -like Feuerbach, Oldfield, Wilkins, Logan. We need to have more of them, and they need to be more vocal, a little more flashy and more extroverted.

I love to see athletes with enthusiasm. Throwing, and track and field in general, have become too "suited" and straight at the elite level. Some areas have become too staged (like putting out your spikes with a fire extinguisher!). We need to loosen up more and have fun again - play to the crowd, get them into it.

I'm excited about the future of throwing in the U.S. While our kids are coming along, we need to be sure to preserve our past, and to tell the young throwers about their heritage as throwers. They need to know how the path has been cleared for them, and what it took to get to the top.

We, as throwers have a great legacy, and we need to make sure that it is shared and retold as much as possible. Oerter, Connolly, Matson, Woods, Carter, Schmidt and Wilkins should be names that every young thrower should know - and they should know what they gave to the sport. In the not too distant future, Nelson, Godina, Logan, Deal, Pukstys, Petranoff and more will be added to the list of names we should know - and know something about.



Al Oerter addresses HOF breakfast attendees.

I can't wait until next year, when we get to include more of our legends in the Throwers Hall of Fame. We needed it and now we have it. *LSTJ*

ELITE ATHLETE SUMMIT

By Criss Somerlot

The 2005 Throws Summit touched base on many areas for the US elite men's and women's throwers. The point of this summit was to review data, film and information gathered during the past season and combine it with set goals and aspirations for the ensuing year. The summit lasted from 5 PM Friday until after noon on Sunday, with sessions in 90 minute intervals.

Each of seven throws events were covered (due to scheduling conflicts the women's javelin did not attend and will convene later). The summit was run in conjunction with the NTCA Conference in Columbus.

The initial session was for all elite athletes and their coaches, plus the support persons such as sports psychologists., biomechanists, etc. Dr. Bing Yu of the University of North Carolina gave an overview of what he is doing in the men's and women's discus, and how it is integrated into obtaining greater distance. Bing "tied" all the components together as to how the pieces fit together into what we are trying to do. His talk was well received and set a nice tone for the weekend.

Several of the sessions covered were as a result of having the elite athletes and their coaches talk with the organizers about what would help them in getting ready for 2006 and beyond. One of these recommendations was to have Dr. Peter Grimes talk about core strength. Dr. Grimes broke this session down into two presentations and then worked throughout the next two days with the athletes individually in adding to their existing programs, refining what they are doing and rethinking some old thoughts. This was a valuable session and most everyone took away some "nuggets" of advice.

Saturday morning, Dr. Jim Reardon (former elite discus thrower) gave a presentation on "Mental Preparation." The session was very well received. Jim had put a paper together that guided the throwers through what mental aspects he touched on. He then had prepared a CD that put to music the thoughts in the paper. Each athlete got a copy and most are using it as part of their preparation now. Some of his talk centered on "moving through the rounds" and what was critical. He touched on "critical zones" and what the athletes needed to prepare for in advance regarding mentally strength.

Mark Heckel of Penn State gave a short talk as a throws official and the "rights" of athletes before, during and after a competition. This produced some good question and answer time and hopefully prevented some future problems.

Tom Pukstys and Romas Ubartas did two sessions on "Speed, Agility & Quickness." Both of these former elite athletes understand what it takes to compete at the world level. Their talks were very well received and generated some great exchanges.

Jen Davidson gave a talk on using the Dartfish technology correctly and to its fullest advantage. This allowed the athletes and coaches a chance to explore the benefits and multiple uses of this equipment.

The High Performance Program of USATF has specific targets and areas (critical zones) that need to be addressed in staying within the established parameters of USATF/USOC. The critical factors are the focus of what we try to cover in filming, biomechanics, etc. Getting all of the elite athletes and their coaches altogether allows for a great exchange just within the group. Add to that sessions like the weight lifting panel with Dr. Larry Judge, Jud Logan, John Smith, and moderated by Tom Pukstys, and you have a truly insightful exchange. Larry, Jud and John all laid out their lifting philosophies and answered questions from the group. Results, both good and bad, were discussed. Gains, losses, etc. were covered. It was a super panel with three very successful coaches with entirely different programs presenting. This session was very well received.

One of the critical areas for High Performance Program (HPP) is implementing the results of 2005 into the planning of 2006. Each group (shot, discus, javelin) met with the athletes, coaches and biomechanists to formulate a "plan" for the ensuing year. This is a guideline, not an etched in stone plan. The idea is to set when USATF can schedule HPP labs at meets, plan for other summits, etc., so that we can best utilize our funding to best serve the needs of the athletes. There were several of the planning sessions. The athletes had input into this area as well as their coaches. The planning of the "Throws Summit" was a joint effort among the athletes, their coaches, the single event chairs (Women: Ramona Pagel, SP, Rita Somerlot-DT, Kathy Errickson-HT, Men: JT, Jeff Gorski, HT-Dave Swann, SP-Rob LaSorsa, DT-Criss Somerlot) and the two broad event chairs, Rita and Criss Somerlot. Rita Somerlot did the bulk of the planning for USATF. Input from Larry James and Sue Humphrey as the Men's and Women's Development Chairs, the scientists, and Mac Wilkins, plus Brooks Johnson as Chair of the High Performance Programs all contributed significantly to the success.

The end result of the summit is that the time gave the athletes, coaches and scientists all a means to get on the same page. This as we all know is critical to long-term success.

In conclusion, the group feeling was that the tone has been set for 2006 and beyond. The US throws are on track to get better. Much work remains but a foundation is in place.

MUST BE THE SHOES

By Dick and Tyler Richardson

The World Masters Championships were held in Donostia, Spain (San Sebastian) from the 22nd of August to September 9th, 2005. In prior years, the Richardson family had been lucky enough to travel to Australia, New Zealand, Puerto Rico, etc. to compete and watch the biennial event. This year, however, only Tyler could travel with and generally take care of his old dad. Tyler is 15, in 9th grade, and is a full time hockey player; but he has always supported my javelin throwing passion. Since I coach the throwers at his high school, Cedar Cliff (New Cumberland, PA), we will see if track is in his future.

The family's world-wide trips and visits to the Pennsylvania Senior and Keystone Games, as well as various other U.S. competitions, have been some of our best times together as a family. My wife, Bonnie, and our five children (including Tyler) have spent many hot afternoons watching a bunch of old, but very well trained javelin throwers perform.

As you get to an older age (I'm 57), you don't lose your competitive spirit. I haven't even lost the pressure I put on myself to get better. The distance of the throws seems to stay steady between the ages of 45-55. We will see what happens over the next 10 years.

Masters track and field also promotes friendships that develop over time. In Spain, there were only three Americans out of 24 competitors in the male 55-60 javelin competition. Bob Powers, Jan DeBenedetto, and I represented our country. We were missing some great



The shoes, and Dick and Tyler

competitors such as Bob Kovalo, Greg Geraci and Buzz Gagne. For those of us that did make it to Spain, we competed against the following countries: Australia, Ireland, France, Dominican Republic, Great Britain, Russia, Spain, Finland, Portugal, Estonia, Germany, Lithuania.

Bob, Jan, and I worked as a team, although it was difficult because of the steady rain, which was at times a downpour. The rain started as we warmed up and ended with the last throw.

The weather was perfect until the moment we left the call room. It began to sprinkle as we walked to the ministadium to warm up and it poured as we started to throw. The javelins were immediately wet and within minutes were saturated to the point where we didn't even try to cover the handles. It was a challenge for all the competitors.

Masters throw in 5-year age groups and the javelin goes from the standard 800 grams down to 700 grams from age 50-59 and then down to 600 for 60 and over. The drop to 700 grams was difficult at first, but because I coach high school and handle the 800 gram spear occasionally, I know the weight decrease is important to protect our old arms.

The Anoeta Sports Complex in San Sebastian was nice. It has two stadiums and a Velodrome. The adjacent mini stadium where we threw has three tartan javelin runways. Two of the three were newly painted and perfect, so we threw on the other one. It was okay, but not nearly as nice.

The shoes pictured got a medal even though I didn't. Bob Powers' shoes and other gear were lost in the plane trip to Spain. With the down pour and the slippery runway, I offered to share my shoes. Bob accepted the offer and we asked to have the throwing order changed since we were originally set to throw right after one another. Explaining the situation to Spanish officials that we were going to switch shoes after every throw in the middle of a down pour by two rather impatient 55+ year old men was a treat to watch. After many minutes the order was changed and we switched the shoes after each throw. After I returned home, someone offered me solace that I hadn't gotten one of the three medals by suggesting that my shoes did win a medal at the world games. Bob Powers came in third. I came in fourth and Jan missed finals by inches, but he never stopped cheering and pushing Bob and me through our last throw.

Masters throwing is a very rewarding experience. You never completely accept the fact that your distance is slipping backwards, and we always believe we can throw farther.

To be able to run in a manner of speaking, slow to fast, transition to a stretch back position, slam to a stop, and whip your body and arm with as much violence as possible is a challenge I accept each spring as the weather breaks in central Pennsylvania.

Spain is a nice country to visit and the people were very nice. Tyler enjoyed the trip, especially the topless beaches of San Sebastian. We rented bikes and rode for miles. He kept me from losing my cool with our cab drivers since I'm not known for my patience.

The next World Games are in Germany in 2007, and I hope we can take a larger team and win the gold. *LSTJ*

The Journey from Student to Teacher

Completing The Circle

By Derek Woodske

When I was a young boy in the town of Parson British Columbia I enjoyed the great outdoors, skiing in the winter and riding my motor bike in the summer. I started playing volleyball at the age of nine. The first time that I picked up a shot put I was in the fourth grade. I am pretty sure I threw the steel ball more like a baseball than a shot, but my Dad said that I needed to keep it tucked against my neck. That was the first time that I was ever coached in the throws and that was the first thing I learned about track and field. That year was 1984 and my school colors were brown and yellow. We were the C.V.E.S Grizzly Bears, and since that time I have been an Eagle, Cardinal, Cowboy, Eagle, Eagle again, and now finally, a Grizzly at Adams State College in Alamosa, Colorado. It is interesting that I have come full circle by way of school mascots, but when you are a part of something like school sports, its important to be recognized. And one thing I know is the Adams State College Grizzlies are well recognized.

Not every great athlete becomes a coach, and not every great coach had a career as an athlete. However, there are those that have been lucky enough to enjoy both, and the perspective and insight they can offer are aspects of coaching that will never be found in a book. I learned this lesson first hand from two different coaches over the course of my career. And in both instances, they are able to have empathy, insight and understanding, where other coaches may have not been able to see the playing field through the bushes. Perhaps the best coach that I have ever had for this is Jud Logan, and in the world of track and field, he held icon status for years as a performer. Now as a coach he has shown the insight and understanding needed to produce national caliber athletes year after year.

However, this is not always the recipe for success for everyone, and I am working very hard to be one of the former-athletes-turned-coaches that can teach as well as I performed. Luckily for me I have been a part of programs that emphasized the education of athletes as well as the training. When I started as an athlete at North Idaho College under Brian 'Bud' Rasmussen, he was strict with the concept of being a student of the sport. We would have film study and technique analysis every week, and it wasn't forced, but assumed, you would know who the best throwers were and what they looked like when they threw. I never thought of this as being anything other then normal. It wasn't until a few years later that I realized Coach Rasmussen was using us to prepare for his USATF Level 3 evaluations! In retrospect, the time that I spent in Idaho are two of the best years of my career and the fundamental teachings that I received in the throwing events have put me at foot with other coaches twenty years my senior. The

education that I received from Coach Rasmussen was cemented with my involvement in Ironwood Throws (IWT) Camps. I was once asked to describe the difference between IWT and other camps of the same nature and the analogy that I used was this: if most camps are like getting a high school diploma in the throwing events, then Ironwood would be like earning a Ph.D. And this is exactly what I did. Watching and learning from the best in the business and applying it to the athletes that I have worked with over the last five years.

The transition from college to coaching and back to athletics, finally to return to the coaching ranks, has been an interesting one for sure. When I graduated from the University of Wyoming, I left immediately to take a job as a part time assistant throws coach at Eastern Michigan University. When I arrived, I had a distinct mix of really good and pretty average athletes. Some were difficult, others were easy, but the one thing that remained the same was the lack of experience on my part. I had a pretty good understanding of the sport, from the past years with North Idaho College and my career at Wyoming. However, I was realizing that there was much to be learned about applying this knowledge to athletes that had never been coached in this manner. I understood what I should and shouldn't do. and what to and not to teach, but my weight room concepts sucked and my athletes were really under-trained. I had switched gears away from the principles that had made me, and started training the athlete conservatively, a mistake that I would never again repeat. At the end of that season I felt slightly rejected in my attempt at coaching and the opportunity to join Jud Logan at Ashland University was a no brainer for me. When I first arrived in Ashland I thought that I would just be an athlete. No coaching, just learning, and for the majority of the time that is exactly what I did.

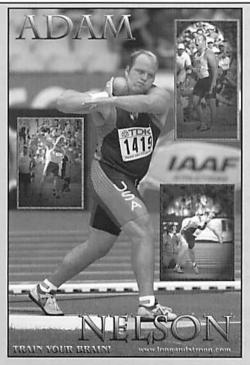
However, the more that I learned from Jud and his connections with people like Charles Poliquin, the more that I wanted to put these practices into action. Not even a year had passed when I started working with high school athletes from around the state of Ohio, and in doing so I was finally starting to develop my coaching style. A personal expression of knowledge that makes you distinct from your peers, every coach has it and it becomes recognizable to those that you work with and those that you coach against. Some coaches are psychos, needing to fuel their team's intensity for them, and others are cool operators that would make Clint Eastwood flinch. I personally try to find a balance between the extremes, having been an athlete who wore his emotions on his sleeve and a teacher that believes that the 'message' is in

the connection and it doesn't matter how assertive you are. You will never be able to will an athlete to be or do what you think they should be able to do. All you can do is provide the path and the purpose and it will inevitably be up to them to be successful.

During the three seasons at Ashland, I coached two state champions in the discus, one national leader in the women's shot put and a high school freshman from Dayton who put over 61'. All of them had the passion and the desire to continue with the sport of track and field. Since arriving at Adams State I have taken on a new group of athletes that too have the characteristics to succeed and a willingness to try things in their training that they have never seen before. And to put their faith in a coach that believes in the future of their ability. I have learned when to push and when to back off. I have begun to understand the difference between weakness, and weakness in

character. One can be worked through, the other cannot, and the world of athletics may not be the right fit for the individual. I have become more honest with athletes that I work with, both in my belief in their potential and honesty towards their effort. Adams State is a college on the verge of reproducing the success that they have had in cross country on the track, and I am excited to be a part of that success. That success is going to take a lot of hard work on the part of both myself, and my athletes.

We have all the tools available to us at Adams State, from IAAF facilities, both indoors and out, to an athletic department and community that supports us full heartedly. I look forward to the future of coaching, and I have found that it is not only exciting to see the changes in the athletes that I work with but also in myself and how I have come to see the world of athletics from inside and out of the arena. *LSTJ*



The Long & Strong Throwers Journal is proud to announce a new venture...throws posters!!! That's right, full size (24" X 36") posters of your favorite throwers, suitable for framing. The posters are <u>full-color</u> and printed on sturdy 100-pound text stock.

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The first in the series is USATF shot champion and twotime Olympic silver medallist Adam Nelson. This is a trial venture for *LSTJ*. If this initial offering proves popular, look for more to follow of your shot, discus, javelin and hammer favorites.

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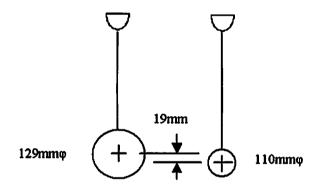
The Physiological and Mental Aspects of Training and Competition

Fighting For The Last Quarter-Inch

by David Post, Physics Professor, Former Thrower and USATF Certified Master Official

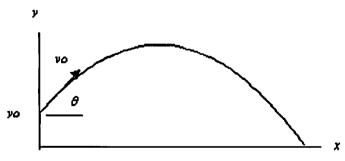
Introduction:

Does a quarter of an inch in overall hammer length make a difference? Well, most hammer throwers and coaches think so, as evidenced by their concerns during the implement certification process prior to the event. Athletes and coaches closely monitor the overall length measurement during weigh-in. If the measurement is not within one quarter of an inch of the maximum allowed, there is almost always a request to replace the wire with a longer one. In addition, the request may occur several times until the desired result is achieved. This paper examines the influence that both one quarter and three quarters of an inch (19 millimeters, see diagram below) has on the distance thrown with all other distance-influencing parameters held constant. Note that about three quarters of an inch in effective overall length is automatically gained when the 110mm ball hammer is used, compared to the 129mm ball.



Analysis:

Graphically, the flight of the hammer appears as shown below. The hammer throw is assumed to be a ballistic event, that is, the flight is not significantly influenced by either lift or drag.



The three governing equations for the analysis

(1) $x = (v_0 \cos \theta)t$ (Motion in the horizontal direction)

(2) $y = y_0 + (y_0 \sin \theta)t - \frac{1}{2}gt^2$ (Motion in the vertical direction)

(3)
$$F = m \frac{v_o^2}{r}$$
 (Centripetal Force equation)

Solving the first 2 equations simultaneously for x and eliminating t in the process yields:

$$x = \frac{{v_o}^2}{g} \sin \theta \cos \theta \pm \frac{v_o}{g} \cos \theta \sqrt{{v_o}^2 \sin^2 \theta - 2g(y - y_o)}$$

Where:

x =distance thrown in feet,

y =vertical distance above the ground in feet,

 y_o = release height above the ground in feet (assumed to be 0.5 feet)

q = release angle in degrees (assumed to be 45°),

 v_0 = initial velocity in feet per second (fps),

g = 32.2 ft/sec² (gravitational constant on earth)

t = flight time in seconds (eliminated by this analysis)

F = Centripetal Force,

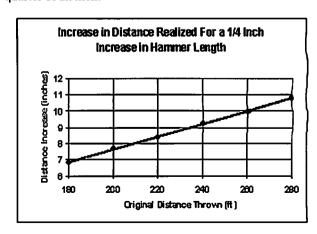
r = radius, assumed to be about 6.5 feet (arms and hammer length),

m = mass of the hammer (Weight/gravity = 16 lbs/32.2 ft/sec2 = 0.497 slugs)

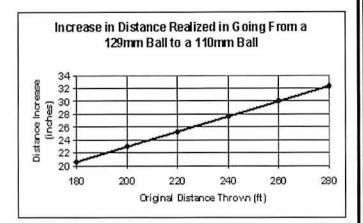
Discussion:

The analysis is performed parametrically with the assistance of a spreadsheet. First, an arbitrary distance between 180 and 280 feet is assumed. Next, the resulting initial velocity and centripetal force are determined based on the assumed distance. The radius is increased by the stated amount and the initial velocity is recomputed on that basis, holding the centripetal force constant. Finally, the new distance is computed based on the increase in radius.

The graph below shows the increase in distance realized from an increase in radius (hammer length plus arms) of one quarter of an inch:



The graph below shows the increase in distance realized from an increase in radius (hammer length plus arms) of three quarters of an inch. This increase in length is automatically achieved by simply going from a 129mm ball to a 110mm ball (129mm-110mm = 19 millimeters = 3/4-inch):



Conclusions:

It is obvious that the athlete and the coach are justified in fighting for the last quarter inch during implement certification. Often competitions are won by considerably less than the improvement afforded by the quarter-inch. Moreover, selecting the smallest diameter ball of 110mm (16 pound hammer) over a larger ball-size can be as much as 3 times more important than fighting for that last quarter-inch. *LSTJ*

Send Me Your News Clippings!!!

From time to time I get mail from LSTJ subscribers enclosing newspaper clippings of throws-related news. I always appreciate them, and from time to time, they lead to actual stories in LSTJ. If you have something you think might be of interest to

LSTJ's readership, or maybe just to me, send it to: LSTJ, 3604 Green Street, Harrisburg, PA 17110.



Thanks for keeping me informed!

Glenn Thompson Publisher

CONNOLLY IMMORTALIZED

By Glenn Thompson

On Saturday, December 10, Harold Connolly, the United States last Olympic hammer throw champion and tireless advocate for the event, was honored with a statue in his likeness in front of the William Howard Taft School in Brighton, Massachusettes. In the sculpture by Gloucester artist Pablo Eduardo, Connolly is depicted in great detail leaning into a release.

Connolly and his wife, Pat, were on hand for the festivities, as were various local politicians, friends, family and competitors.

Connolly, a 10-time American hammer throw champion, also competed in the 1956 (gold), 1960, 1964 and 1968 Olympic games.

Connolly's achievements were made even more remarkable by his having Erbs-Jackson paralysis, a nerve condition that left his left arm severely impaired.



Eduardo's scultpure turned back the clock for Connolly.

Aside from his ball-and-wire career, Connolly went on to become a high school teacher, principal and chairman of the Special Olympics Committee for more than 10 years. *LSTJ*



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