

Thought Leader Discussion

During a two-week trip to Europe I had the pleasure of interviewing people who were recommended to me who very experienced in the European development system. Below is my summary.

Questions: I asked most people the following questions.

- 1) Best age to start skiing
- 2) Age to start training with ski club
- 3) Days on-snow per year at different ages
- 4) Off season on-snow days
- 5) Specialize vs concentrate in winter
- 6) Specialize off season
- 7) Disciplined practice vs skiing purely for the fun of it
- 8) Parental involvement. Unique or advantage.
- 9) Speed introduction training/racing
- 10) Best coaches should coach which age group
- 11) Centralization (Nat Team) age?
- 12) Regional team age?
- 13) Regional/national Projects

Summary of main points

If there was one take away from the interviews it is “many roads lead to Rome”. I think it is also fair to say, “not all roads lead to Rome”. Ski racing is an individual sport. There are many different approaches that have been followed. However, there are several key take-aways that are universal. This report focuses on those.

The discussions revolved around two main points. Culture and skill or ski specific strategies.

Culture. There was universal consensus that in Europe ski racing was central to the basic identity of families and even nations. Comments like “if I didn’t ski, I didn’t have any friends were common. Skiing is a way of life. Kids start as soon as they can walk and often ski every day growing up. There are 20 “Buck Hill” like small hills around Oslo. There are hundreds of small town hills in the alps, although there are less than there used to be as a result of weather and other pressures. School schedules are built around skiing. Everyone skis.

In Europe ski racing is very competitive. Often athletes quit school and have no fall back position if they don’t make it. The top Austrian U16 has quit school already.

Parents are often involved especially at younger ages. Virtually all interviewed believe parents can be a differentiator, although there are lots of examples where they were not.

Those who know the USA system well cautioned we avoid trying to copy the European system. Americans need more emphasis on fun for example. It is far less expensive to pursue ski racing in Europe. There is virtually no self-funding model there. Several stated that this could be an

advantage for USA as parents can afford to keep kids in the sport longer allowing late maturity or slower developers to mature later. Our statistical work tends to bear this out.

Ski specific strategies. Most important point; ski racers are made not born it is nurture rather than nature. There was consensus that ski racers are made not born. One can't start too young and must ski a lot! European volume when young far, far more than USA. Best practice suggests 2-3 days a week skiing starting age 2. 5-6 days a week at 6-9 yrs. Formal programs by 5 and academy's by 10. When entering academies at 10 they are already very good skiers.

Disciplined practice is critical. Mindless skiing won't lead anywhere. It is common to have unstructured skiing but challenging elements must accompany environment. Variety is key. Poor conditions, obstacles, other challenges help. Variety in training environment is important. USA is criticized for "too good" conditions and course sets.

Women mature much earlier. Everything is compressed for them.

Norwegians have very good club level coaches and high quality programs which is much of the reason their national teams can be so small.

Best practice suggests the best training is right after the season. The season should end in May. Most don't support specializing in ski racing until later, but all support concentrating in skiing. Don't sacrifice time on the snow for anything. However when you can't ski, play as many sports as possible.

Europeans generally don't have full time national teams until U21, some rare second year U18's. Regional project based teams are common starting at U14. Some sound more like full time regional teams, but due to the close geographies it works.

Introduction to speed elements early is good. Little emphasis on speed until at least U16. Good to experiment with open GS's younger. You must be a good GS skier to benefit from speed.

Volume is much more than is typical in America from U16 and up. 140 to 180 days is considered best practice. Ramping to 70 days off-season on snow is considered typical. Off-season is from April 1 to November 15. Minimum annual gate count around 25,000 and target of 35,000. Khoroshilov trained 25,000 SL gates last year.

NorAm is critical to USA development. It is very questionable if jumping into Europa Cups mid season has any value. NorAms have to have the appropriate challenge, terrain, surface, set. Jumping from NorAm to World Cup is absolutely doable. We need to make sure our best athletes attend NorAms to help build the quality. Question if staying in USA and training huge volume, concentrating on NorAm's is more effective than schelping around Europe. Norwegian EC athletes trained huge volume.

Four event skiing is a thing of the past. Modern SL just takes too much time. There are two categories, SL/GS skiers and GS/SG/DH.

Notes from Interviews

Former Austria/Germany head men's coach. USST Women, USA Academy Program Director

- Ski racing is an individual sport. "There are many roads to Rome." No rule book. No one way. Racer management is best individually based. Sometimes it is a waste to race, you are much better off training. On the other hand if you are on a hot streak, go for it.
- Tech capability critical. Can't be successful downhiller without being a very good tech skier. Downhill courses are getting more and more technical. Days of only gliding skills are mostly over.
- Can't start too young. Can't ski too much when young.
- Ski club start 5-6 years old.
- Academy 10 yrs old
- Ski racing is a skill sport that incorporates complex movements. Need huge volume.
- Good to mix age groups.
- Killer instinct important
- US kids have fall back options. Will they work hard enough?
- Wealth in US can be an advantage such as luxury of staying with it longer.
- Parental involvement - many examples in top echelons, especially for adolescents, often an advantage.
- Quality skiing is important. That doesn't necessarily mean gate training. Create an environment that emphasizes the skill they need to learn. "Mindless" unchallenging fun skiing is not worthwhile.

Long time European coach familiar with US System

- Europeans are skiing less due to distractions, computer, Internet etc.
- Ski racing is the number 1 sport in Austria. It is cultural. Lots of role models, TV exposure etc. It's really cool to be a ski racer.
- US is expensive, much more than Austria, therefore a sport for wealthy. Wealthy kids may be less hungry.
- Top Austrian ski racers often have no fall back position. The current top U16 boy quit school after 8th grade.
- Ages 10-13 are the keys years for skill acquisition. Must already have base miles by age 10. Coaches for under 10 yrs old should be outstanding skiers. Have one competent technical head coach and all rest young recent ski racers. Coach by example.
- Surfaces are too good in US.
- No national team until second year FIS.
- U14 up national projects
- Regional team with USSA coaches. No full time national team in Austria until second year FIS. Recommends strong regional teams through NorAm.
- Regional academy's athletes within two hours of home. Jr academy's start at 10 yrs.
- Very competitive environment. Academy attendance is earned year by year.
- Fun factor more important in USA.

- Parents key. "Behind every great racer is a parent that is a little crazy." More prevalent at younger ages. When parent is competent coach, then may continue to WC. Many examples.
- Speed. Introduce only after athlete is a good GS skier. Speed elements can be introduced anytime. Best age for DH 18.
- Women mature much earlier. Need less than 30 points as a first year FIS.
- Counting gates not as valuable. Days more useful. Running gates without quality worse than not doing at all.

Head Coach. Attended college in US, pro tour. Long term reputation.

- Khoroshilov skied 25,000 SL gates last year. Huge volume days.
- 140 days a year if athlete can handle it. Older WC athletes sometimes are much more limited.
- Skied into May. He tells athletes season is over May 15.
- Indoor occasionally really good for SL
- Variety in terrain, sets, conditions very important (everyone said this)
- Ski racers are not natural athletes, although some are.
- SL is all about fast twitch muscles. That's why you don't see WC SL racers skiing powder. They are afraid their legs will get "heavy".
- Volleyball/basketball is dangerous. Would not allow athletes to do this.
- Khoroshilov is portrayed as a late project as he became competitive on the WC in late 20's. However, he was 4th in Topolino. Was a four event skier. His break through coincided with becoming a SL specialist in his late 20's.
- Community is critical. Sell the sport.
- Success is a long term plan. Stick with your plan.
- SL spring session similar to Sasha's last year very effective.

Head coach USST

- TERRAIN VARIABILITY KEY
- Start skiing 3 yrs old.
- Club as soon as possible.
- Volume; ages 2-5, 2-3 days a week
- 6-9 yrs 4-5 days a week
- U12-U16 5-6 days a week
- Important to take periodic breaks.
- Summer skiing starting U10
- Offseason is April 1 through Nov 15.
- Believes in concentration not specialization. Soccer, gymnastics etc in off season. Lots of activities in off season, but ski when snow is on the ground.
- Make sure it's fun especially at young ages, but couple fun with disciplined practice. Play on skis. Create the right environment.

- Speed elements very young. Tuck, jump, Kickers, glide.
- U14 2-3 days a years build from there. Open GS with speed elements with GS skis U14/16
- Parental involvement. Many roads to Rome.
- Some natural athletes, some not. Some have exceptional portions like strength endurance or power endurance.
- National team start U21.
- Regional team U16-18. National projects.

Misc comments on Italian system.

- Police team unique. Includes pay, benefits training, coaching etc. Common to go back and forth between national team and police.
- Athletes trending to single event

Former Head Canadian Ski Team.

- For athletes to care what you know they first have to know you care.
- Key to start young and ski a lot
- Very important to keep it fun,
- Lots of activities in off season. Gymnastics, track and field, soccer. Develop athleticism.
- Show parents the pathway.
- Variety key. Mix it up. don't just do red blue red blue.
- Measure coaches on technical progress not results.
- Free ski...with a purpose.
- Play with new events like obstacle course, two courses have the coach point to which course half way down, the lets switches.
- Most effective training time right after season. (Heard this a lot)
- Parental involvement..."Someone cares about me unequivocally." Can be key. Not always.
- Speed skills early. Speed is changing much more technical.
- Regional teams very effective.
- NorAms really key to North American competitiveness. USA and Canada need to support by having top athletes attend. NorAms develop grit and determination. There will only be set backs...persevere.
- Mental game important.
- Try to eliminate pressure. Too much emphasis on criteria. (Heard this a lot)
- Team key.
- Utilize PSIA

Former Norwegian, Austrian Coach. US Academy experience

- Austria under threat. Lack of natural snow at low elevations has caused many small hills which were the heart beat of Austrian ski racing. It is more difficult for kids to bike or walk to the local lift and just ski.
- Misnomer-Austrian academy's to not develop ski racers. Regional and national teams do. Athletes who are on regional or national teams generally do not train with academy's. Very unusual for academy kids to "make it".

- Culture in Norway and Austria much different than US. Need to make US system the US system. Wouldn't work to make US system a copy of Europeans, who are very different one from the other as well.
- Historically in Austria if you didn't ski you didn't have friends. They all skied.
- Coaching, keep it simple. Focus on strengths not weaknesses.
- Spring volume in Norway a competitive advantage.
- Austria ski academy's off every other week in the fall. Off essentially all winter.
- Daron Rahlves never would have made it in Europe. Father hired a private coach after high school.
- Parents are essential in ski racing.
- Utilize PSIA. Ski fundamentals best understood by ski instructors.
- Can't write a rule book to follow in ski racing, so many roads to Rome.
- Communicate everybody in ski racing is a winner.
- In Norway while the athletes are at Nationals the coaches go to a ski resort and build terrain.
- About 50 boys and 50 girls go to 10 day April camp with national team.
- WC team ski's until June 5th.
- Ski in bad weather can be very useful.
- Parents in Europe will take kids skiing in spring if team doesn't. Parents are really involved.
- Can be good for Americans to be in Europe from a team building standpoint.
- Start speed the earlier the better.
- Ski muscles are unique. Can't build them in the gym. Doesn't mean dry land isn't important, but it is not a substitute for skiing. (Heard this a lot.)
- Sometimes Austrians work in ski companies and train. Sounds a little like Italy.
- Gymnastics build agility.

Head of sports science major European country. Former men's head coach.

- Ski turn is like a swing. When you pressure is like being on a swing.
- Champions find their own way. The system does not make champions.
- Parents have a very strong influence for champions.
- Champions push the limits to get better.
- Believes in regional hot beds. Thinks you can create them.
- Regional coaches important. Should be paid by the federation. Need to be integrated technically with the national team.
- Need good racers not good skiers.
- Start regional projects at U12

Head men's coach major European country. Former head coach Sweden.

- No correlation between natural athlete and ski racing.
- Have to ski huge volume. Younger the better. Maria Reich real work horse.
- Ski in summer. Ski a lot!
- Do not waste time doing red blue. Disciplined practice. (Heard this from almost everyone.)
- Worried about Europeans competitiveness because of weather.
- Ages 14-16 and 17-19 crucial. Full immersion in ski racing.
- Small group size key. Often that's the main advantage of national team.
- Parents challenging but important.

- Germany dry land not centralized.

Head men's speed coach major European country. Former coach of Maria Reisch

- GS is the key discipline for three event skiers. NOTE there are virtually no four event skiers any more. Needs more work on SL progression.
- Ski a lot! Germany '70 days before Sölden.
- Maria huge volume. Far more than other athletes. Developed an unusual feel for snow.
- Killer instinct important. Can't be a nice guy.
- Need to be patient with speed. Can take years after success in technical events. Fenninger good example.

Program Director small country Ski Team

- Very small base of athletes. Have to take them on the national team young. Not necessarily ideal in his mind. Time will tell.
- Thinks skiing is similar to tennis. Individual sport, heavy skill dominant. Requires huge volume.
- Parents crucial but give him gray hair.
- Took over federation at 25 years old.
- Understanding athletic development key. Thinks Ante Kostelic could take any 5 year old and make him a WC champion.

NORWAY SECTION

I am organizing my notes generally in the order I interviewed people. The exception is Norway as I dug deeper and deeper throughout the trip as it became more and more interesting. There is a real story here.

Various current Norwegian senior athletic staff

Interview 1

- The fighting Viking culture is the key competitive advantage the Norwegians have.
- The volume of 180 days on snow, year around commitment for WC team with a week off here and there, characterizes them. They claim they are in far better shape than any other team.
- The national team is tiny. A and B only. All development is done by the clubs and (mostly) academy's.
- There is a close cooperation between the clubs/academy's and the national team.
- The next crop of academy kids possess an unprecedented level of physical prowess. (Scary thought)
- There is a Norwegian phrase, "a day without training is a day without meaning".
- Four event focus is almost impossible.
- Parents in Norway are hyper involved. Not always helpful. Junior ranks are really competitive.

Interview 2.

- Huge volume is the Norwegian way. Kids ski as much as seven days a week when they are little. Lots of variety, challenging, fun.
- Hates criteria. The system of A,B,C,D. It comes from a German name Kader which is a 1800 military term that has been outdated for 100 years. Puts unhealthy pressure on athletes. Prevents them from skiing naturally.
- Critical focus, intense focus, scary intense focus is on improvement. He took Kilde, Foss-Solevaag, Kristofferson from academy, to EC to WC. They were always focused on getting better. Huge volume, 15 runs a day many days. They often trained 15 runs the day before a EC race. He just didn't care about things like EC success. He was always focused on WC champions.
- He scoffs at programs that do a few runs during the season. "Nobody gets better training two or three runs."
- Nobody is a born skier. It's all deep experience. "Processification".
- Adaptability, balance and ability to handle what ever is thrown at you comes from volume.
- They are ski nerds. They have no other interests. They are 100% focused on ski racing.
- There is no such thing as burn out. There is just laziness! No problem people quitting. Doing things half way and expecting 100% result is crazy.
- Norway is like the Wild West. On the edge.
- They ski 20 days on snow after the season. One week break at Easter, national champs, perhaps another week off, then 20 days on snow weather permitting (it takes the mountain shutting down not to train, rain snow what ever).
- Dry land starts May 5 and continues to August 1. Then a short camp to dial in equipment before their main South America camp. Five weeks very intense starting Sept 1. Some periods 10 days in a row. "I can't take a day off if the weather is good".
- Moto for dry land, "it's gotta hurt". Did emphasize sport science like hours spinning at a very low heart rate.
- Everything should be focused on performing for 1-2 mins full gas. Lots of intervals etc.
- Doesn't like Europe glaciers in the fall. Too crowded, not good enough conditions etc. Does take the Sölden athletes to prepare for Sölden.
- He believes in super compensation in SL. Huge volume breaks you down, take a break and when you come back it will be at a much higher level. Says it may be mental not physical.
- Four events is almost impossible. SL just takes too much training.
- Intense focus on winning. Kristofferson's results were better in WC than EC in his last years on EC. He just couldn't get up for EC.
- He has seen the USST dry land program and thinks it is very good.
- Iron man test is the infamous test they do. He said it was not correlated to performance, but to heart. Were you willing to suffer. Did you like suffering.

Johathan Nordbotten, Leif Haugen, Espen Lysdahl. All former NCAA athletes now on Norwegian WC team.

- Not enough volume in college throughout the year (heard this a lot). Athlete needs to seek out more training on his own. In winter college training is good. Jono said he trained four days a week plus races on weekend. Far more than on the national team, which was evidenced by chasing races.
- Other college assets like gym, hockey rink etc. really helpful.

- All three were on national team young and were demotivated before college. College rejuvenated them. Regained the love of the sport.
- Much easier to improve in Colorado than in Europe. Better conditions longer season etc.
- NorAm to WC good route. Europa cup experience is over rated. Top NorAm as good as top EC. Field less deep, but so what? Worthless to jump into EC mid season. It's all about getting in the seed (EC is top 30 based on EC points). Not being in their seed is setting yourself up for a beating, demoralizing. Proof that EC's are not all that special is the same guys who were in the seed at NorAms are getting into seed at EC's.
- Norway has cultural and structural advantages. Oslo has more than 20 Buck hills, all with lights. Kids ski from VERY young age...a lot. Often seven days a week at six years old. had to get pulled off the hill...after the lights went out. Norway is an outdoor culture. Everyone does outdoor activities. Clubs almost free. Lots of parent coaches. No full time national team until EC.
- Norway very competitive at young age. Problem in some ways. Over the top parents.
- Ski racing is all about confidence. Need to win. Doesn't matter where. If a WC guy needs confidence should go win a EC or even a FIS race.
- Interesting phenomenon happening with so many college/NorAm guys at the start of WC's. "If he can score so can I".
- All athletes in Norway train together. Lifting with the A team is inspirational.
- Huge volume. 180 days on snow. Many runs. 20 on snow days in spring after WC finals. One week off between.
- Physical training key. Compete in the gym. Sometimes a problem.
- In season maintenance. Dry land only at Christmas.
- Trained SG from 11 yrs old. GS skis until 13.
- Skiing is a zero sum game. Ski your brains out in the winter.
- All Nat team attend nationals, no coaches or techs so younger kids have better chance.
- Spring ski testing. Next years skis and set ups are often done in April.