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WINTER OLYMPICS SUPPLEMENT

Mountains Into Moguls

Former and current Olympians talk about the evolution of skiing and snowboarding at the Winter Olympics. Equipment and training have changed, but the love of competition remains constant.

By Emily Beers

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In Sochi, Russia, freestyle skier Keri Herman will represent the United States in her first Olympic Games. She'll compete in the slopestyle competition, and it's the first time the event will be included at the Winter Olympics.

Herman's been training hard on and off the slopes for four years, and when the competition opens, she'll perform complex tricks and jumps on innovative "twin-tipped skis" that allow her to ski facing forward or backward.

Stefan Kaelin raced in the slalom and giant-slalom events in stiff leather ski boots at the 1964 and 1968 Olympic Games. It was a much simpler time, an era before before halfpipe, ski-cross, snowboard and slopestyle events even existed. His training was seasonal and didn't include dryland sessions or the special programs used today. Separated by decades, Herman and Kaelin both do CrossFit, as do 2002 snowboard bronze medalist Chris Klug and 2010 and 2014 snowboard Olympian Sarka Pancochova. Although winter sports and elite training have changed drastically since the 1960s, the Olympic spirit has largely remained the same.

Olympic Memory

At the age of 70, Swiss skier Kaelin doesn't think about the Olympic Games very often. It was long ago that he raced at the Games, and being a two-time Olympian is simply not something that defines his life today, even if others consider it an impressive achievement.

But when Kaelin is asked to muster up some memories when he stops and thinks about his athletic career for a moment—he starts to remember what it was like to be 22 years old competing for Switzerland at the Olympic Games in Innsbruck, Austria, and Grenoble, France.



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"There was no security whatsoever, I tell you We carried our own skis and bags of skis and just walked into the Olympic Village. There was nobody around," Kaelin began.

And when he digs deep enough into his memory bank, he even remembers the feelings.

"The Olympic Games are the Olympic Games, and I remember I got a little nervous," Kaelin said. "That year (1968), there was a lot of snow everywhere in Europe ... those Games were the first Games that they prepared the runs. They really watered down the runs and packed them with heavy machines, so it became really icy. And we weren't really used to those conditions."

"The Olympic Games are the Olympic Games, and I remember I got a little nervous."

—Stefan Kaelin

Pretty soon, Kaelin's even able to dust off 45 years of frost to uncover moments of the competition, including details of one of the Winter Games' most famous controversies.

The official details of the whole event are still sketchy. After Austrian Karl Schranz reportedly stopped his first run to avoid a person on the foggy course, he was allowed a second run.

"And with that second start, he came first. But then the French protested, and the Austrian ended up being disqualified, and Killy (Jean-Claude Killy) again got the gold medal," Kaelin said with sudden clarity.

Schranz was indeed disqualified by a 3-2 jury decision after it was discovered he had actually missed a gate on the course before the race official had allegedly interfered with his first run. The controversy only heated up as suspicions arose that French officials were trying to help their countryman sweep the medals. Killy did, in fact, win three gold medals in 1968, in the slalom, the giant slalom and the downhill.

Kaelin's best finish was 10th in the slalom.



When Stefan Kaelin competed back in the '60s, equipment was much different than the high-tech gear used by today's Olympians.



Kaelin (left) with his wife, Stascha, and 2010 Olympic giant-slalom champion Carlo Janka of Switzerland.

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Herman's view of the mountain is very different than Kaelin's was in 1964.

Kaelin's Mountain

Training for ski racing in the 1960s was not what it is today.

During Kaelin's eight years with the Swiss National Team—1962-1970—most training was done alone on the hill on a seasonal basis, and the equipment was not up to today's standards.

"We didn't really have training camps like they do today. We would get together for a week or 10 days sometimes, and then you'd be back home training on your own," he said. "Most of the training we did was really on snow. There wasn't much physical preparation."

Dryland training or weightlifting didn't factor into Kaelin's preparation, although he did spend some time running

on difficult terrain in the forest to prepare his body for the uneven surfaces he would face on the snow. But for the most part, being on the Swiss National Ski Team meant training on the mountains when nature covered them with snow.

"It's totally different now. Now they are doing a lot of similar training to CrossFit training. They really specialize into strengthening their legs and their upper bodies. We didn't do anything for the upper body in my time," said Kaelin, who has been a member of Aspen CrossFit in Colorado for two-and-a-half years.

CrossFit is relatively new to Kaelin, but Aspen is not. He's been living in Colorado since 1972; it's where he raised his two children and where he opened his ski shop in 1974, a business he continues to operate today.

Retirement isn't something Kaelin is quite ready for, and he's definitely not ready to give up skiing. Even as a 70-year-old grandfather, Kaelin continues to hit the slopes every winter.

"I tell you, when I look at what we did and what they do now, we were behind the moon. It was just really very unsophisticated," he said.

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—Stefan Kaelin

Kaelin said ski boots were made of stiff leather.

"They took a while to break in, and by the time you had them fitting well, the lateral stiffness of the boot—which you needed to etch your ski—broke down and you had to change to a new boot," he said with a laugh.

As for the skis, Kaelin's downhill skis in the 1960s were in the range of 2.23 m long, while his giant-slalom skis were 2.12 to 2.13 m long. Today, giant-slalom athletes race with skis closer to 1.95 m long, with slalom skis being shorter and downhill skis being slightly longer.

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"And there was only a tiny little bit of sidecut back then, so it was actually pretty hard to turn because of the length," Kaelin said. "But we needed the length so that the ski would be as quiet as possible on the snow, so as not to have too many vibrations."

"Sidecut" refers to the arc along the side of a ski when looking at it from above; think of an hourglass shape. Skis with more sidecut allow the skier to make quicker, sharper turns. Too much sidecut and the skis become less stable at high speeds. Different skiing events today require different amounts of sidecut; a slalom ski, for example, has more sidecut than a downhill ski.

One of the other major differences with the sport of skiing in the 1960s was the lack of specialization between the different events. Killy's '68 sweep of the downhill, the slalom and the giant-slalom events—known as the Triple Crown of Alpine Skiing—has not been repeated, and only one other person, Toni Sailer of Austria, has ever done it. Sailer collected his medals in 1956.

Today, athletes cross over and compete in different ski events, but they generally have a specialty, and body type plays an undeniable role in determining which events they enter. Because of the number of sharp, quick turns slalom skiers must navigate during a race, they tend to be slighter, smaller, quicker athletes, whereas downhill skiers benefit from being taller and heavier.

For example, Lindsey Vonn, gold medalist in the 2010 Olympic downhill, is reported to be close to 5 foot 9 and 160 lb., and she specializes in the downhill and super-G events that are more about speed than technical turns.

American Bode Miller is listed at 6 foot 2 and 210 lb., but in 2010 he achieved a rare measure of success by becoming one of only five male or female skiers to win Olympic medals in four different disciplines. He's the most recent member of the club, rounding out his total with bronze in the downhill, silver in the super-G and gold in the super combined (downhill and slalom) events in Vancouver. Miller is somewhat of an anomaly in recent times.

Kaelin explained: "When I raced, the size of the person didn't matter. Back then, you did everything, really. It was a totally different sport. Now it's a high-powered sport. And they train all year round. We didn't do that."

Today, top skiers often head to South America in the offseason. In Kaelin's day, he and his fellow skiers waited eagerly for the snow to arrive each year. And when it did,

it was time to make the most of it because they knew the snow—and their training and racing season—would be short lived.

Klug's Mountain

Training alongside Kaelin at Aspen CrossFit is three-time Olympic snowboarder Chris Klug. The 41-year-old spent 20 years on the World Cup circuit and managed to capture a bronze medal in the 2002 snowboard giant slalom at his second Olympic Games.

The most amazing part of Klug's career might be that he had a life-saving liver transplant in July 2000, just a yearand-a-half before he medaled in Salt Lake City.

In the early 1990s, Klug was diagnosed with an autoimmune disease called primary sclerosing cholangitis (PSC), which basically caused his body to destroy his bile



Klug's bronze medal on home turf was all the more impressive given he had a liver transplant about 18 months before the Games in Salt Lake City.

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Klug, who trains at Aspen CrossFit, said CrossFit training is a great way for skiers and snowboarders to eliminate weaknesses and become better all-around athletes.

ducts to the point that it eventually became a plumbing issue and demanded a life-saving transplant.

Klug dreamed of being an Olympian his entire life, but when he started snowboarding as a child, the sport wasn't even an Olympic event. Something told him it would catch on, and—sure enough—snowboarding made its Olympic debut at the '98 Games in Nagano, Japan, giving Klug his first of three Olympic experiences.

After sitting out the 2006 Olympic Games, Klug was 37 years old when he competed at his third Olympics, in Vancouver in 2010.

"I was the only snowboarder there with gray hair," he laughed.

Training for Klug was much different than it was for Kaelin in the 1960s. To make it to the Games, Klug trained five or six days a week all year round, and dryland training, including weightlifting, plyometrics, spinning and core stability, was an integral part of his training program throughout his career.

Looking back, however, Klug admits you could probably find a few holes in his training.

"I always had scrawny, weak arms," he said. Klug also believes he should have done more interval training, which he does today at Aspen CrossFit.

"What I love about snowboarding is that it requires motor skills and coordination, stamina, balance, and explosive power, and those are a lot of the pillars of CrossFit," said Klug, who added that CrossFit would be a great way to prepare a skier or snowboarder for competition because it develops well-rounded athletes with less weaknesses.

Dryland training, including weightlifting, plyometrics, spinning and core stability, was an integral part of Klug's training program throughout his career.

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That said, Klug is proud of his career and proud of where his sport is today.

"I started 30-plus years ago on a Burton Backhill that had no metal edges," Klug said.

Similar to Kaelin, Klug noted snowboard boots have come a long way.

"We were wearing those moon boots with lots of duct tape ... because the boots had no support," he added. "It's unfathomable to think where we are today."

From CrossFit Breckenridge to Sochi

Scott Ferguson, 44, is the owner of CrossFit Breckenridge in Colorado, about 130 miles from where Kaelin and Klug train in Aspen.

For the most part, Ferguson's gym looks like an ordinary CrossFit affiliate. And it is. But during this past Olympic cycle, Ferguson took two Olympic hopefuls under his wing: American skier Keri Herman and Czech snowboarder Sarka Pancochova. Pancochova already knows what the Olympic Games feel like; she represented the Czech Republic and placed 14th in the halfpipe at the 2010 Games. Herman, on the other hand, has never competed at the Olympics. But after her second-place finish on Jan. 18 in the U.S. Grand Prix qualifier in Park City, Utah, Herman clinched a spot to compete for the U.S. in the slopestyle event in Sochi.

Slopestyle is a relatively new freestyle skiing event but has been very popular at the Winter X Games for many years. Slopestyle and its sister event, halfpipe, are on the Olympic roster for the first time in 2014.

Much of the dryland training Pancochova and Herman have done in the last three and four years, respectively, has centered on CrossFit and the sport-specific training Ferguson does with them.

"When I first started working with Keri, I took a look at what she was doing. There was a lot of FMS (functional movement screening), but there wasn't any exposure to Olympic weightlifting or even foundational lifting," Ferguson said.



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The lack of weight training—especially explosive Olympic weightlifting—in Herman's program surprised Ferguson, as skiing is such an explosive sport.

When Ferguson first started working with Herman, she was in the process of rehabbing a lingering back injury that was never properly diagnosed. She was spending a lot of time dabbling on the stability ball, and Herman could tell it wasn't getting her anywhere. So he replaced the ball with kettlebell and stability work. Once Herman's back injury healed, Ferguson introduced low-weight, high-rep Olympic weightlifting to her program.

"Mostly hang cleans and power cleans We tried to marry explosive and dynamic work with stability work," Ferguson said. "If there is such a thing as a golden ticket, for her, this was the biggest thing. Her athleticism started to completely change."

And from there, Herman's training, and her skiing, started to take off.

Ferguson explained what a typical day at CrossFit Breckenridge looked like for Herman and Pancochova in the months leading up to their Olympic qualification.

The athletes began with some agility work and easy plyometrics before turning their attention to stability drills and eventually to more explosive lifts, typically cleans. Lifting was followed by sport-specific plyometric drills that transfer to takeoffs and landings on the snow.

"We do a lot of launch-and-drop stuff—launch and land. And misdirection drills. Sometimes I'll even put a visual distraction in front of them ... so they have to jump over whatever is in their way," Ferguson explained.

"We can focus on teaching them how to use their hips, how to catch themselves, how to load and explode through the hips."

-Scott Ferguson

"There's nothing we can do for them in mid-air, but we can work with them a lot on takeoffs and landings," he continued. He added that midline stability has also been a big focus.

"And we can focus on teaching them how to use their hips, how to catch themselves, how to load and explode through the hips," he said.

Ferguson said Pancochova often just hits regular CrossFit group classes, in which she can let loose and work out without thinking too much.

As fun as training Olympic hopefuls has been for Ferguson, he admits it has also been a huge challenge.

Unlike lifestyle CrossFit athletes who show up to a class four days a week for the workout of the day, Olympic athletes require focus on the sport-specific side of things, and coaches must manage their training and competition volume carefully while working around racing schedules and inevitable nagging injuries.

The needs of their sports dictate that Ferguson doesn't overload them with big weight.

"They're not weightlifters, and we don't want to blow them out. They're dynamic athletes, so we're not looking for big weight gains," Ferguson said.

Ferguson said Herman and Pancochova have instead seen big gains on the mountain, and the proof is in their results: both will compete in Sochi.

"Keri thanks me every day. Both of them tell me this kind of training is making them better than the old, traditional stuff Instead of plodding along like they used to, they're doing more dynamic stuff," Ferguson said.

"It's foundational. It's basic. It's what works," he said.

The Feeling

When Klug took home a bronze medal at the 2002 Olympics—with 100 friends and family members cheering him on in his home country—he did a Superman leap into the crowd, saying he felt "so elated."

"That's when you realize this is the Super Bowl of winter sports," he added.

That was in 2002, and the Games looked much different than they did in 1964 and 1968, when Kaelin was a seasonal skier eagerly awaiting the first snowfall each year.



Herman was thrilled to be named to the United States Olympic Freeskiing Team on Jan. 18 in Utah. She trains at CrossFit Breckenridge in Colorado.

But despite the unsophisticated training techniques and equipment of the 1960s, the Olympic Games have always been the Olympic Games.

> Even with the constant evolution of each Olympic sport, the Olympic spirit is always the same.

Olympians from the 1960s and Olympians from 2010 all describe the same pride they felt as they walked into the opening ceremonies wearing their country's colors. Similarly, a medalist from the '68 Olympics might explain the podium experience the same way Klug remembers the feeling of winning Olympic bronze in 2002. Even with the constant evolution of each Olympic sport, the Olympic spirit—the excitement and satisfaction, the relief and the pride—is always the same. What Kaelin felt in 1964 and 1968 is the same feeling Klug felt in 2002.

And it's likely the same feeling Pancochova and Herman will feel in Sochi.

About the Author

Emily Beers is a **CrossFit Journal** staff writer and editor. She competed in the 2011 Reebok CrossFit Games on CrossFit Vancouver's team, and she finished third at the Canada West Regional in 2012. In 2013, she finished second in the Open in Canada West.