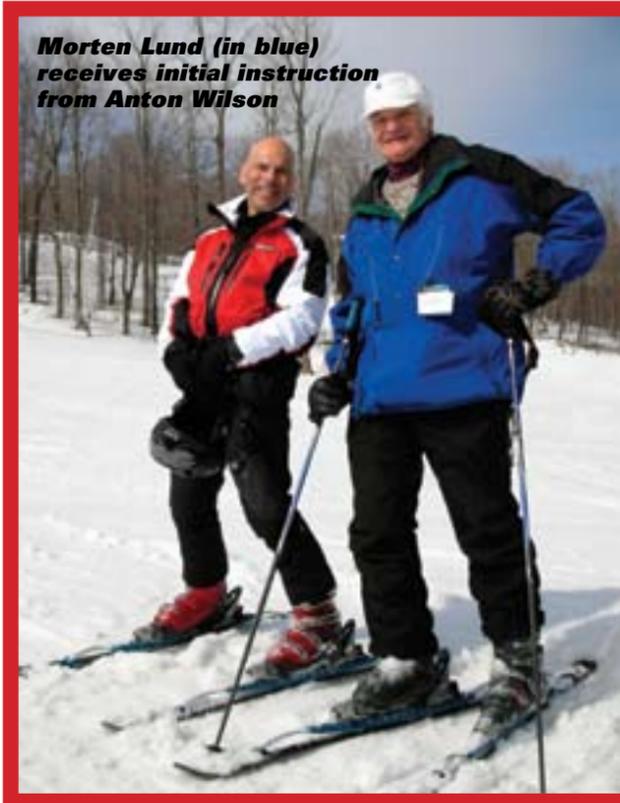


**The editor gets ready to give a NEW idea a try!**



**Morten Lund (in blue) receives initial instruction from Anton Wilson**

# THE Anton

The advantage in efficiency and enjoyment provided by the pure carved turn was first detailed in print and pictures in Warren Witherell's book *How the Racers Ski*, published thirty-five years ago way back in 1972. The book had the first pictures of the double carved track, two pencil thin tracks, one of each ski. Witherell was the first to insist that pure carving keeps skis going with maximum efficiency because a ski in a pure carve is always headed in the direction of travel. Turning by stemming or steering means skidding skis across the direction of travel and is not nearly as efficient.

The perfect ski teaching method then, to be logical, instructs the novice in pure carved turns from the beginning. Easier said than done. Witherell raised a quiet subterranean hope of creating that sort of teaching method. Hope surfaced with the so-called "shaped ski" in the mid 90's. These were significantly wider at tip and tail than the previous standard skies that were the model all the way back to the 1930's.

The theory of the shaped ski is that the wider tip and tail cut into the snow as the force of the turn



**Jay Frischmen, Anton Wilson, Morten Lund and Tony Lanza - GM of Belleayre**

thrusts the narrower waist of a ski held on a high edge into the form of an arc, much as an archer bends a bow. The edged ski instantly heads around an arc in the shape of the bending ski as the ski cuts through the snow.

The trick was the same as with the preceding classic ski: to get the ski on edge and hold it there. The shaped ski did work quite well - for the expert skier able to hold the ski at a high edge angle through the turn. Bodie Miller was the first racer to adopt a shaped ski and it became the springboard to his amazing success. But, given the normal flat edge angle, that is all the beginner and intermediate skier can achieve even with shaped skis; the tip and tail do not bend into the snow enough to keep the skis in



**The Unique Anton Glider Suspension System**

# Glider

By Morten Lund

## Fulfilling the Promise of Carving

We Try the Revolutionary Ski at Belleayre Mountain

the curve of a bending ski. This means the skis are skidding, not carving. Progress toward an actual pure carving method has been, to be realistic, stymied.

Now there has appeared a radical new and unique ski design that conquers the impasse, the Anton Glider, a design that may show the way to the future.

The ski is grounded in years of research by a late boomer who started skiing when he was 40. Actually, he did not take up skiing seriously until this project. Anton Wilson is an engineer by education and an inventor by trade. Wilson invented the camera battery being used by most TV networks worldwide. In 1997, Wilson sold his business and, was determined to break through to the expert skiing level that he had never reached. Soon, he became frustrated by his attempts to carve on off-the-shelf skis, and decided to design the perfect carving ski, a ski with which he could easily make a pure carve.

The challenge is one that has tied ski designers into a pretzel, even as they claimed that the shaped ski had solved it, when in

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*"I left those telltale 'pure carve' tracks. This was something I had been able to do only intermittently before."*

fact it hadn't. Coming fresh into ski design, Anton Wilson had an advantage. The industry had accepted as gospel that the ski was basically a flat instrument with no preload (no effective tip or tail pressure until the ski is bent into a significant arc). As a result, the ski has to be stiff enough to spread the skiers' weight out over the ski as it bends up. Anton saw that the solution to this problem was the exact opposite: create a "supple" ski with a 'high preload'. To maintain stability, a skier depends on feeling the pressure from tip and tail to sense when he is off balance. A soft ski cannot provide sufficient tip and tail pressure for stability on hardpack and a stiff ski can create this pressure but only after it is bent up. However, a 'high preload does provide effective tip and tail pressure consistently, regardless of whether the ski is bent or flat.

So he set out to design a ski with a full "active" suspension system. One that would preload the tip and tail to give the beginner and intermediate skier a stable platform by keeping pressure on the whole length of the ski. And this would be true even if the skier leans back or forward or if the terrain is bumpy. In addition, this sophisticated suspension design would give the skier this support constantly and therefore provide a reassuring feeling. This is opposed to a conventional ski where the support from the tip and tail is constantly fluctuating between not enough on smooth terrain and too much when going over a bump.

Based on automobile and motorcycle suspension principal, Anton's better idea is a complex and ingenious system of composite springs (not coil springs) between a "chassis" and the ski for consistent fore and aft support while allowing the ski to be very flexible.

This is a major difference from a conventional ski. Until now, the ski has been a compromise to provide both a running surface that bends (somewhat) and gives (some) support from the tip and tail. Anton's concept separates these functions into two specialized systems, each best for its specific purpose. The ski itself is flexible and easily bent into an arc, while the suspension system springs strategically attached

to both ends of the ski provide forward and backward stability. Eureka!

Another intriguing feature is that front and rear spring systems are independent and allow the ski to snake up and down over uneven terrain, keeping the full length of the running surface in continuous contact with the snow.

The ski shape is no accident either. In order to edge the ski quickly to induce a carve, Anton realized that the ski edge should optimally be under the boot rather than to the outside of it. The wider the waist the greater the resistance to edging. The combination of the under-the-boot edge and the weight spread to the tip and tail makes initiating a carved turn pretty effortless by comparison to any shaped ski now on the market.

But does it work? One morning I tried skiing the 4 1/2 foot Anton Gliders on the slopes of Belleayre in New York's Catskills. I found that the skis track with as much stability as a standard "shaped ski" five to six feet long and can make a pure carve with a tight, smooth but fairly sharp eight-meter radius turn at an intermediate's average speed of ten miles an hour. I left those telltale "pure carve" tracks - two thin parallel grooves in the snow behind me. This was something I had been able to do only intermittently before. On the Gliders, the required effort was also much less as I had no trouble making carved turns. This is a stunning result coming from a stunning engineering achievement.

The double-track carve has been the Holy Grail of skiing. Watch the racers: their weight is on both skis and they transition so smoothly from one carve to the next that it seems downright spooky. Once on Anton Gliders, a reasonably adept skier can make the same kind of turns with almost this same smoothness at low speed. Then, I found that once the motion was learned, I was able to transfer the same moves from the Gliders to my own five-foot Dynastars.

It did take some relearning to get out of the habit of throwing maximum weight onto the outside ski and aggressively driving the tip. On the Anton Gliders the

weight is equally distributed to make a relatively tight carved turn and then to go smoothly from turn to turn.

This ski has to be the simplest, most efficient tool I have experienced for learning to make connected carved turns.

And this produced a "Wow, I never did this before!" I had that rare occurrence of suddenly skiing at the next level up. Once I had the glamorous double pure carved track down, skiing was fun even on a beginner slope. Pure carving generates steady turning pressure felt typically only at much higher speeds. You feel you are going faster than you really are as the Glider accelerates smoothly around the turn, a heightened sensation of speed and in fact more speed for effort put in. Which is why racers go for the double-track carve when possible.

As with any radical departure from the norm, Anton knows that there are problems. The main one is cost. The Anton Gliders available last season were made by hand from carbon fiber materials and aircraft alloy at a cost of almost five thousand dollars a pair. That might not be a bar for everyone. One rather well financially endowed Colorado woman who had trouble with skis loved this one so much she insisted on buying a pair on the spot. But customer demographics at that price are, well, limited. But as production quantities increase the pricing should become more affordable.

There is still to come the indispensable process of winning over the ski schools. Even schools wanting to teach early carving may be, understandably, hesitant to embark on a radical and expensive new program. On the other hand, schools are also concerned about the low "conversion rate" of first-time skiers; 85 out of every 100 people who try skiing once don't come back. Most often the reasons given are; it's too difficult, too scary, out of control, too stressful, and I wasn't having fun. Initial trials by several ski schools have indicated that the Anton Glider ski has the potential to improve the retention rate because of their ease of turning, stability and control, producing an enjoyable first experience.

At present the Anton Glider is the only silver bullet for getting terminal intermediates and beginners to carve for the first time. The ski school at Belleayre has already begun to introduce the Glider at the lower levels with encouraging results. Several other ski schools are interested in establishing pilot Glider programs. Time will tell if the Anton Glider's success in providing carving-from-the-beginning catches on, but now there is at least a bright light showing at the end of the tunnel. \*

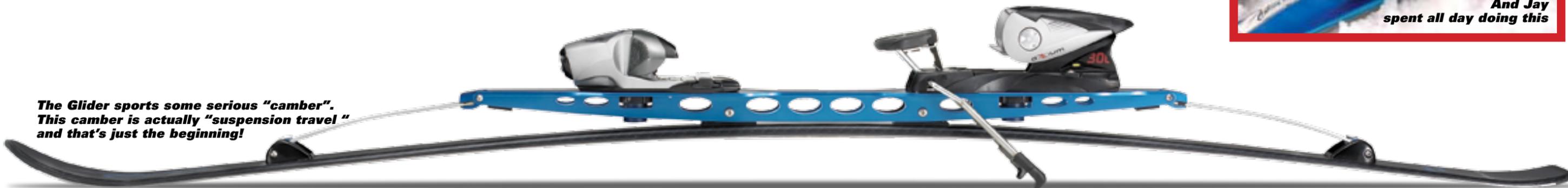


**Jay demonstrates Glider flexibility**



**And Jay spent all day doing this**

**The Glider sports some serious "camber". This camber is actually "suspension travel" and that's just the beginning!**



# The Anton Glider

## A Carving Ski Revolution?



**SNOWEAST** ski testers at Windham Mountain, NY  
L-R: Amy Rosmarin, Jay "Junior" Frischman, Morten Lund, Anton Wilson and Mitch Kaplan



Mitch has some poignant thoughts as he first inspects the "Glider"



The Anton Glider are not your father's skis

# How I Learned to Stop Worrying and Become a **A CARVING WHIZ!**

By Mitch Kaplan

Photography by Gerry Pallor & SNOWEAST Staff

I gave in. What did I have to lose? A day of skiing at Windham Mountain? Some loss.

I bummed a ride to Windham with Mr. Publisher (hey, a writer's pay is meager enough, why incur expenses?), where he introduced me to the ski's inventor. His name? You guessed it: Anton. Anton Wilson. Anton expended more energy greeting me than I expend in a normal day. If his ski generated as much torque and energy in turns as he did, it would be something special.

We - myself, Mr. Publisher, writer Mort Lund, Anton and his assistant Jay "Junior" Frischman - gathered at the ski rack, where a collection of short skis awaited us. On top each wore standard bindings. But, these were mounted on a space-age looking blue metal deck with holes in its sides, from which flat, silver metal straps projected front and back, attaching to the skis' topfaces near tip and tail: the springs.

Hey, they did look like truck springs.

Anton adjusted my bindings, and we rode the lift. What, I asked, makes the Anton Glider different? The springs, of course. Plus, their short length, and the placement of the edges.

As Anton explains it, it's difficult to distribute pressure from tip to tail on a traditional ski (yes, even a shaped ski), and more difficult to achieve and maintain the acute edge angle needed to carve. A regular ski is made to bend only one way - up when you press down.

The Glider bends up and down. The springs provide constant, consistent pressure, front and back, up and down. The ski is, as Anton says, "pre-loaded," so even if your weight goes back or forward, the tips and tails stay on the snow. And, better, the fore and aft springs act independently, like a car's independent suspension, allowing continual snow contact and a smooth ride. A glide, if you will.

Now, add the short length and edge placement not outside the foot, like a standard ski, but under the boot, and suddenly you can achieve a carve with only slight angulation.

After explaining all this on the lift, Anton demonstrated on the snow: when he lifted his toe as high as he could

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I want you to try this ski. It's radically different," said this magazine's esteemed publisher.

I responded with skepticism.

Why? I've skied through at least three ski design revolutions: metal, box construction and, currently, shaped skis. And, ski makers have touted even minor design changes - hell, even graphics changes - as the breakthrough that would make me ski like Billy Kidd, Picabo Street and Bode Miller combined.

I'd have settled for being the best Mitch Kaplan skier I could be.

"So," I asked, "what's so special about these . . . whaddaya- call-ems?"

"Anton Gliders," said Mr. Publisher.

"And what makes them so special?"

"Springs."

"Springs? Like what? Bedsprings?"

"No, no, more like truck springs."

"Now you want me to ski on trucks? Like an eighteen-wheeler?"

"Jeez," Mr. Publisher wheezed, "just come and see what these skis can do."



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while leaning back, the ski tip remained on the snow; when he did this on a normal ski, you could twang the tip like a guitar string.

**Yeah-But Does It Work?**

Most theories sound good, in theory. But, only testing determines if a product actually works. So, downhill I went.

Anton produces a few models, and I began on the Advance 5.5, a ski designed for beginners. No, miracles did not happen. Indeed, I had to mentally throttle back and resist trying to crank the skis and my angulation to set the edge. Less was more.

However, after two runs on Windham's novice slopes, things fell into place. Skiing with weight equal on both skis, carve happened. I looked back and - hey! There lay two sharp, parallel tracks. Cool.

Next up, the GT, designed for more advanced skiers. Oddly, they seemed more sluggish than the beginner Advanced 5.5. What, I asked Anton, was up with that? Turned out I'm too light. The GT is wider and made for heavyweights who need a broader weight distribution.

Then, I clicked into the FS and headed to the mountaintop. Now, this ski induced a World Cup feeling. It carved, even on Windham's steepest, iciest trails.

Anton also makes an EX model, his most all-around, all-mountain ski.

"This is not a new, better ski," Anton said later. "This is a major breach with existing technology. Even the novice's Advance 5.5 has technology that applies equally well to high-performance racing and beginner-level skiing: it reduces chatter, adds stability, uses the whole length of the ski, and gives stability and confidence to first time skiers. It's not like we're adding training wheels. It's like what radial tires did for driving: they provided a major breakthrough in the way cars handled."

The Anton Glider, he was quick to point out, is not for off-piste or powder skiing. It makes skiing on hardpack and groomed slopes easier and more enjoyable. "The basic ski goes back to 2000 BC (or whenever!), and is based on soft snow conforming to the ski from tip to tail," Anton explained. "But, on a groomed surface, there is no soft snow to conform. So, the ski must conform to the snow. This ski conforms to the snow."

In creating the Glider, Anton wasn't initially aiming at racers or experts. He wanted two things. One, to allow perpetual intermediates to be able to readily carve turns like an expert. And, two (and more importantly), to allow never-evers and beginners to have fun immediately.

To illustrate, he tells of a colleague's wife, Cathy. A middle-aged woman of minimal athletic ability, Cathy hated skiing, but went on ski vacations to be with her husband, an inveterate skier. One morning at Aspen's Buttermilk, Anton and Jay put Cathy on the FS model, gave her some instruction, and left her to explore on her own.

"I came upon her late in the afternoon," Anton related, "and she was still skiing. It was getting cold. It was getting dark. I asked her how she was doing. 'This is really fun,' she said, 'but let me tell you about it later - I want to make the last chair.'"

She had learned to enjoy skiing in just a day.



Mitch gets into "Gliding"

Anton Wilson, inventor and engineer, explains the technology that makes his skis work



**And The Catch Is?**

Anton will describe at length the physics and other technical mumbo-jumbo involved in making these skis work. I won't pretend to understand all that. I will witness that they do work. There's just one problem: they're expensive.

Currently, the handmade Limited Edition Carbon Series can be bought through the company Web site for \$3990. The Virtual Powder Series, standard production models, will cost half that, and should be available sometime during the upcoming season.

Few people will spend that kind of money for sports equipment. Fewer will spend it sight unseen. The good news is that Anton will be staging demo days at various resorts this winter. (See [antongliders.com](http://antongliders.com) for the schedule.) And the price should continue to come down.

Novices and skiing dropouts can learn/re-learn on them at New York's Belleayre Mountain, where the ski school will offer a series of Glider introductory clinics. "This is a demo/teaching program that will allow people to try them and learn to ski," Anton said. "Or, if you've tried skiing but given up because it was too difficult, it was scary, or you made no progress, this will show you a different game. People who give it another try are guaranteed to have a new experience."

You really can feel like an accomplished skier after a few runs. As Anton says, "You don't have to be an expert. The expert is built into the ski."

I, for one, think he is on to something. ❄️



The Anton Glider

**A CARVING WHIZ!**