



# OLD SCHOOL - NEW SKOOL

HOW THE SHAPE SKI HAS CHANGED SKI TECHNIQUE

**The shape ski has brought carving to the masses, but the more ski technique changes the more it stays the same. How do you change your skiing to ski the new carving skis?**

The shape ski has now been with us for over a decade, yet there persists much discussion both on and off the slopes about the role the shape ski has had in carving out a new way to ski. These discussions typically strive to define old school vs new school ski technique. In this article I'm going to discuss and explain a couple of the most significant changes to ski technique that have occurred because of the shape ski, and also tell you what's remained the same.



Arguably the greatest benefit the shape ski has gifted to our sport, is that they've made the joy of carving more available to the average recreational skier. Because shape skis have been designed to turn easily and sharply all by themselves when tipped on edge, skiers have been greatly freed from the pervasive need to do the gross movements of yesterday that were used to manually turn the skis.



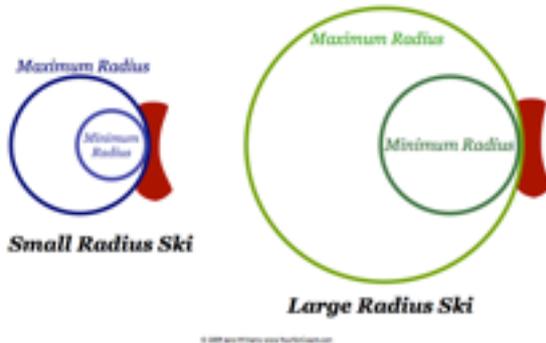
Your dad's straight skis would carve for him too, but the turns they made when doing it were extremely long and fast, so carving was reserved for a select group of the highly skilled and brave. Average recreational skiers were resigned to having to turn their skis themselves with gross muscular effort for the majority of their turns.



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## *Minimum/Maximum Turn Radius*



Shape skis turn much sharper when put on edge than the old straight skis did. Today's recreational skiers are able to enjoy the sensation of carving, while making much tighter turns, and traveling at much slower and more comfortable speeds, than their counterparts of yesteryear could. With carving, the labor intensive unweighting and twisting moves used to turn the old straight skis can be now left behind, replaced with a new technique of economy of

movement and work. Skiing like that provides a feeling of effortless flow down the mountain, which produces ecstatic smiles from ear to ear on the faces of those who learn to do it.

Unfortunately, skiers new to the sport do not yet have the foundation skills needed to support pure forms of carving. Only those with well developed balance and edging skills have the ability to fully control the shape and speed of their turns across the entire spectrum of possibilities the new skis afford. Lesser skilled skiers, lack the ability to precisely manage their line down



***Out of control 'carving'***

the mountain when carving, or make quick adjustments to their course of travel, to avoid suddenly appearing skiers or other obstacles. This can leave them not only terrified and out of control, but also a danger to themselves and others on all but the flattest of ski slopes. The steered turn still needs to first be learned and mastered, just as it did before.



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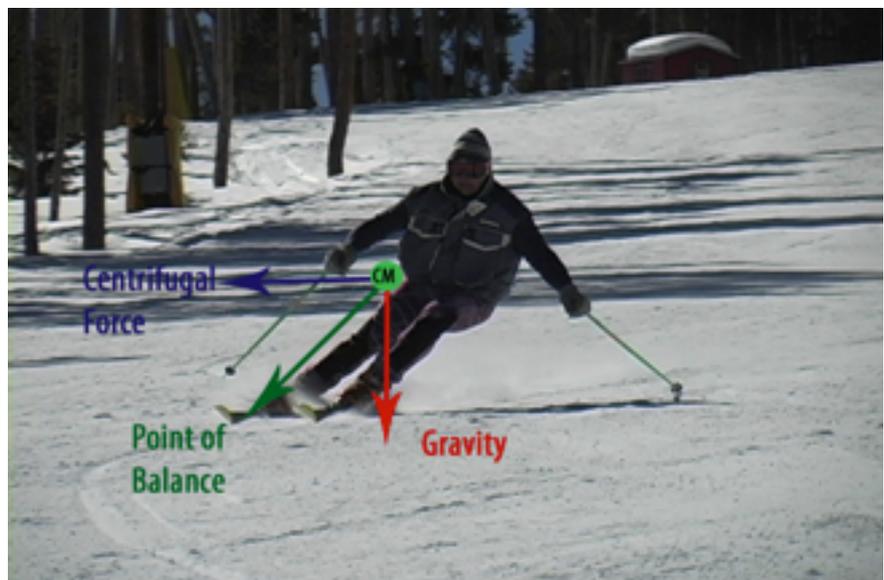


***Controlled Steering***

That does not leave new skiers out in the cold when it comes to benefiting from the unique turning abilities of the shape ski. Even beginners benefit from the shape ski's built in desire to do the turning itself. If a shape ski is tipped even slightly on edge by a learning skier, it still wants to turn on its own faster than the old skis did, so the amount of supplemental manual twisting needed to

execute a beginner's steered turn is reduced too. Turning is therefore easier, even at this pre-carving level, which has made skiing an easier sport to learn.

Even with those dramatic changes the shape ski has ushered in, some things have remained very much the same. Skiing at its roots is a balancing act. That fact has not changed. As we turn down the mountain, ever changing forces are constantly acting on our Center of Mass, attempting to throw us out of balance and hurl us off our feet. Whether riding shape skis or straight, it's always been the case that to reap the greatest performance from our skis, and do it with the least amount of effort, we have to learn how to manage and exploit those every present turning forces. We still today need to learn how to move our balance point forward and back to milk all our skis performance potentials, and we still need to learn how to move our balance point laterally from our inside to outside ski as situational need requires.





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When it comes to lateral balance adjustments, angulation is still a key skill that needs to be possessed and used. Here lies another important benefit the shape ski has bestowed upon all us lucky skiers. Today's smaller radius skis allow us to use less angulation. Angulation is nothing more than a way to manage our state of lateral balance. In simple terms, we use it to move our balance point towards our outside foot. Shape skis produce higher levels of centrifugal force for the same edge angle, which in-and-of itself moves our balance point more towards our outside ski. That means less angulation needs to be introduced by us to stay balanced on our outside ski.

This is not to say angulation is not needed. Actually it still very much is, especially as the edge angle grows. What has changed the most with the introduction of the shape ski, and what carries the most importance for skiers,



is that the need for **knee angulation** has been very much reduced. Knee angulation allows you to move your balance point towards your outside ski much more than hip angulation does. On our

old shape skis only the fastest turns and lowest edge angles could get away with pure hip angulation. Trying to employ pure hip angulation in most turns simply resulted in our weight falling on our inside ski. We had to knee angulate to stay outside ski balanced. It's why A-framing was not looked upon as the taboo stance it is today. It was something that had to be done to ski effectively. Check out old pictures of Stenmark and you'll see an abundance of knee angulated A-framed stances.



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The problem with knee angulation is it's a weak stance that subjects skiers to a higher risk of incurring knee injury. With shape skis, less angulation is needed, so we can more often employ pure hip angulation and enjoy the safer and stronger stance it provides.



This has been a significantly valuable modification to ski technique brought about by the shape ski. Because of this important change, the body positions of expert skiing today have a whole new look. They provide a new level of comfort, safety and strength. Viva la change!

*By Rick Schnellmann*