The Classic to Modern Symphony of Short Turns - A Lost Art

With the advent of shaped carving skis, the world turned to larger turns. Tipping your skis at a high edge angle and riding a large arc at mach speed is exhilarating. The edge/pressure generation of skiers was born and they indeed are the hallmark of the time we are still in, or maybe coming out of. The reverse camber world of rocker skis has brought us now the tip and twist generation that does very few shallow turns and then goes straight.. What happened to short turns?

The short turn is almost a lost art. Short turns used to be the hallmark of good skiers. You used to see many skiers doing short turns down even a wide, groomed slope. Now you usually only see short turns in the trees, chutes or bumps.

Nevertheless, I still love my short turns. The “modern” carved, reaching, gliding, short radius turn is a very different beast than the classic, braking, short swing turn. The “modern” carved, reaching short turn gives you such a wonderful feeling as you tip your skis from one high edge angle and while steering, roll them immediately to the other edge, through the middle of the “S”, reaching your skis out to one side, pulling them back, having them zing under you and then reaching them out to the other side. Take your hand and hold it in front of you with the thumb side/edge up. Now, as you push your hand forward, turn it to the inside until your thumb is facing downward. Now do this moving your hand through an “S” shape. That “snaking” action of guiding your skis around from one set of edges to the next and then reaching out to the side with your skis, is what is such a cool feeling. This dynamic did not exist in the classic short turn.

The classic short turn is great fun too. In the classic short turn, the great feeling was going down on one edge set and popping or even hopping to the next edge set. That was great, but, personally, not nearly as thrilling a feeling as rolling and slicing through the turn as we do now in what PJ Jones refers to as the “blue angel effect.”

Working on your short turn skills can help improve immensely the rest of your skiing. Let’s examine the classic, braking short swing turn and then compare it with the “modern”, reaching, gliding short radius turn. You will see that one of the main differences between the classic and modern short turns is that the classic short swing turn is a defensive, braking turn whereas the "modern" reaching short radius turn is an offensive, gliding turn. Being skillful in both types is still the hallmark of a good skier.

The Classic Short Swing Turn

The basic classic short swing turn begins as you flex and pressure your skis while you exit the turn guiding your tips further across the slope than your tails, with a skid and a slight edge set. Your plant your pole as you set your edges, as you flex down.

Right after pressuring your edges, you extend and elongate your frame as you flatten your skis through turn transition. You then steer a flatter ski in a slowed pivot type of a movement.

As PJ passes through the fall line at the apex of the turn, notice that the feet are not reaching far from the body, but rather more under the body. In the "modern" reaching gliding turn, the feet are further from the body, reaching out to the side with higher edge angles.

After the apex, the skis are directed more across the fall line, as you flex, engage your edges with more pressure on the outside ski and you again plant your pole. Throughout the whole turn, your body is basically facing down the hill, also known as a countered position. The counter is created by steering the skis under the body.

Speed control in a classic short swing turn is through the braking of the edge set and/or skid and/or check as it was sometimes called. This is the “heavy” section at the bottom of the turn. Muscular pressure is added at that point. This is followed by a “light” section where the skis are un-weighted, flattened and steered/pivoted into the next turn.

A more advanced move that makes short swing turns smoother is when you retract your legs and feet right after edge set, pulling your feet towards your bum and then extending them out to the other side to the next edge set. You are guiding and directing your upper body down the hill and with this retraction move, your upper body is “quieter”.

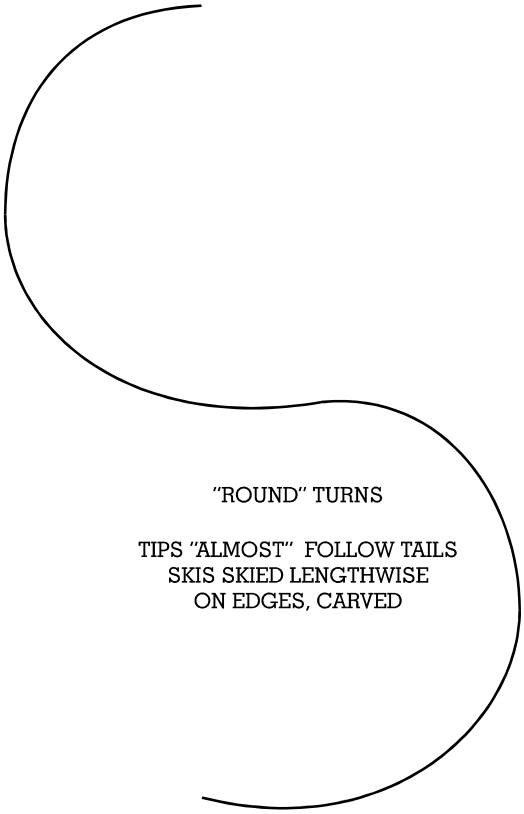
In the classic short swing turn, the lateral pressure control (the foot-to-foot weight shift) is both more abrupt and late in the turn, right before the fall line, where you begin to engage your edges while steering your skis, “swinging” through the turn. After the apex, you go down on both feet, but with more weight on the downhill foot, then you push off, flatten and steer your skis in the other direction weighting the new outside/downhill ski as you begin to engage your edges again.

On steeper slopes, I used to say that all you had to do was to “think turn” to turn. You check, set your edges, and pop, you are landing on your other edges. You go from one edge set to the other, very quickly. The turn shape is that of a rounded “Z”; i.e. The track your skis leave is more of a zig-zag shape with a sharp radius. The snow spray is thrown downhill with the edge set. The movement patterns are more staccato, more on/off and abrupt, not progressive and continuous. Classic braking short swing turns are not very relaxing and require quite a bit of energy. They are a good warm-up work-out especially on cold days.

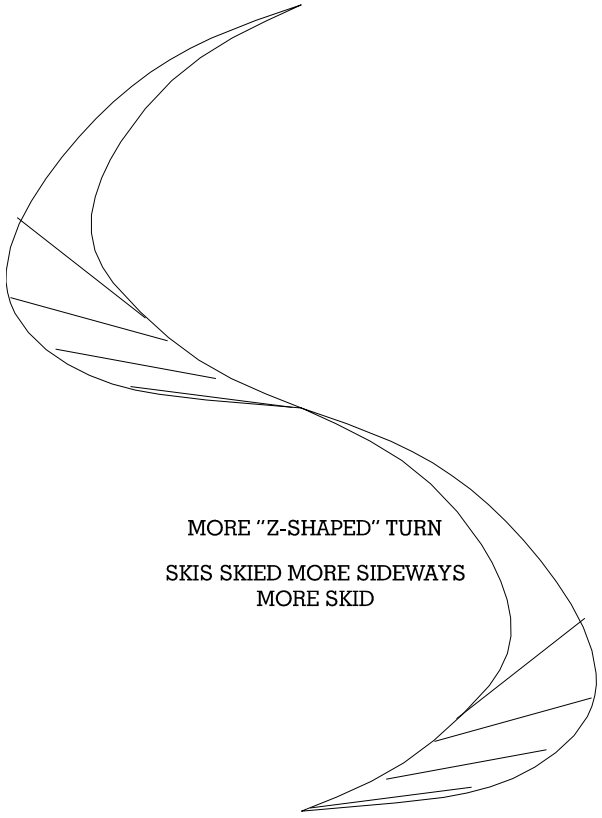
The “Modern” Reaching, Gliding Short Radius Turn

In thinking about any ski turn, always pay attention to what your skis are doing. The objective is that always the skis on the snow and making them scribe a certain arc or shape. Pay attention to the skis and how you need to use your body to cause the skis to track like you want them to. Don’t worry so much about assuming some body position, but rather pay more attention to the skis. The body is there to make the skis work. This focus on the skis is especially important in improving your "modern", reaching short radius turns.

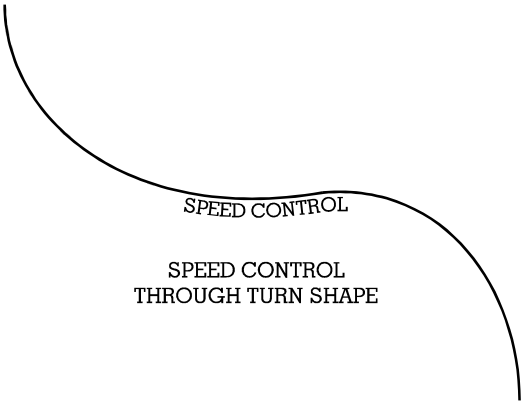
The dynamics of the “modern” short radius turn are very different from the classic short swing turn. The main difference is due to the turn shape. The "modern", reaching, gliding short radius turn is a round “S” shape (or linked “C”’s), not “Z” shaped. The skis are in the fall line longer in this linked “C” shape. The turn is basically ROUND.



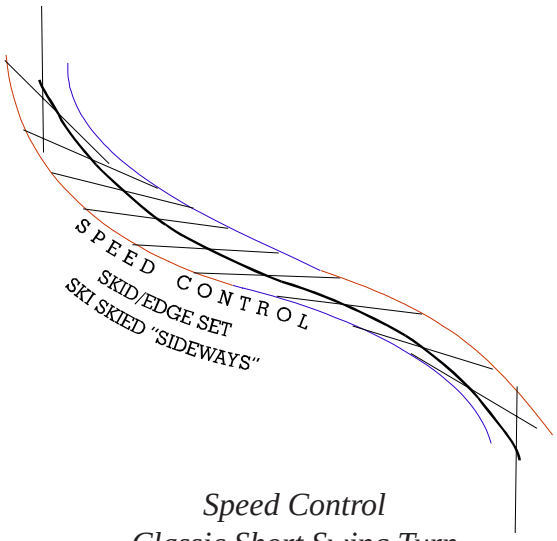
Shape of Reaching, Gliding Short Radius Turn



Shape of Classic Short Swing Turn



Speed Control
Reaching, Gliding Short Radius Turn



Speed Control
Classic Short Swing Turn

Speed control in the “modern” turn is through this round turn shape, not an edge set as in the classic short swing turn: Rounding out the lower part of the turn, steering edged skis across the fall line and even up hill, followed by making a round turn entry with engaged edges.

All the movement patterns for edging, guiding and pressure management of the skis are continuous and progressive in the reaching short turn; not staccato like in the classic short turn.

In a "modern" reaching gliding short radius turn, you continuously and smoothly steer an edged ski throughout the whole turn. In the classic turn, you steer/pivot a flatter ski to an edge.

Whereas in the classic short turn, the edges are engaged at the braking part of the turn, in a "modern" reaching short turn, the edges are engaged throughout the whole turn. The skis are progressively edged and “un-edged” throughout the whole turn. However, the edge change is very rapid, you go immediately from one edge the other edge.

The pole “touch” is on the edge release/change, not on edge set as in the classic short turn.

Classic Pole Plant

Modern Pole Touch

The relationship of the skis and feet in the alignment to the rest of the body is different in the “modern” turn. In the short swing turn, the feet stay relatively under the body. In the reaching “modern” short radius turn, the feet and skis reach out and are guided outside the axis of the body.

Classic Apex
Less Edge, Feet more “Under” Body

Modern Apex
More Edge, Feet Reaching Out to Side

In the “modern” turn, the snow spray is directed more out to the sides at the apex of the arc as the skis cut while changing the trajectory, not down the hill at the bottom of the turn.

The one aspect that is relatively similar is that of counter or where the upper body is aimed. In classical skiing the upper body was usually always aimed more down the hill in a “countered” position in all turns. In “modern” skiing we guide and direct our upper body aiming the ‘zipperline’ where we are going next; i.e. at the outside or apex of the next turn. In large turns, this means that it is aimed more across the hill. However, in short turns, it will be aimed down the hill because this is where we are going. Thus, in both the classic short swing turn and the “modern” short radius turn, the body is aimed more down the hill.

The "modern" reaching gliding short turn requires very active lower legs/shin bones. Our current generation of skiers who are fond of “parking and riding” are not accustomed to this rapid and very dynamic movement of the lower leg. This is probably the singular most important movement pattern to practice; driving the shins both forward and inside quickly, but progressively with a large range of movement. Balancing the steering of the skis with this active shin bone edging movement and controlling the overall pressure of the turn will allow the edges to hold and carve a nice clean, sharp line in the snow.

Besides active shin bones for edging and steering, the "modern" reaching gliding short turn requires more active and aggressive pressure management skills. The bottom section of any turn will always be the heavier part due to the physics of the forces of gravity and momentum pulling the skier down the hill and where he is going. When at the bottom part of the turn, the skier opposes these forces by redirecting the skis across the hill, this is where we feel the most pressure. In the "modern" reaching gliding turn, movements that manage pressure need to be

progressive and continuous. Pressure is managed at the bottom of the turn both by flexing to reduce the weight on the skis and also by retracting the feet towards the bum. Decreasing the pressure at the bottom of the turn helps maintain the cutting of the skis edges in the snow preventing the skis from skidding out. This is the key reason for actively managing the pressure of the turn forces - to keep the skis cutting. Pressure is then transferred to the top of the new turn by reaching the feet out into a round arc. This active reaching helps to distribute the turn pressure forces more smoothly throughout the turn. Another benefit to learning to actively reach out at the top of the turn is that adding pressure at the top of the turn can also be used to increase speed.

Retracting Feet

The pressure of the turn forces is managed also by an early, progressive lateral/foot-to-foot weight transfer. This lateral pressure control is progressive and continuous. The timing of it is much earlier than in the classic short swing turn. There is more pressure on the outside ski throughout the entire arc, but you are at 50:50 at edge change. However, to be progressive and smooth, through the 50:50 at edge change, you need to start moving to the new outside foot right after the apex of the turn; i.e. right where the pressure is increasing due to the physics of the turn forces. If you do not progressively manage this pressure, you will be very late in your foot-to-foot weight transfer and will either end up starting the new turn on your inside ski, which is not a very easy or balanced way to move, or, in order to transfer your weight to the new outside ski, you may need to make a push-off from your old outside ski, which will most likely cause an ab-stem.

Early Weight Transfer or Flow

Foot-to-foot or lateral weight transfer should be continuous and progressive throughout the whole turn. It is an internalized movement, that goes up one leg and down the other, in one smooth, continuous movement. To time it right and be early in your weight transfer, when you feel the pressure begin to increase after the apex of the turn, you simply begin to “soften” the outside leg, as you flex a bit more onto what will be the new outside ski so that by edge change you are at 50:50. Immediately after you have stopped flexing, you start extending/moving your body into the next turn, while your skis finish the old turn. All this time, transferring more and more weight to the new outside ski until you are 50:50 at edge change.

When describing the movement patterns of the basic “modern” short radius turn, I like to think of the beginning of the movement patterns being the apex of the turn. At the apex of the turn, I am reaching my feet out to the side, feeling the edges cut through the snow in an arc. My feet are far out to the side, not under my body. As I progressively steer and edge them into the lower part of the turn, I feel them cut the arc in the snow. I’m edging and steering (tipping and turning) my skis in a round arc, feeling the edges slice.

I want to continue to have them cut and not skid out at this lower part of the turn. In order to do this, I pay close attention to two things; 1) the balance of my edging to steering; and 2) controlling the pressure. I need to have enough of an edge angle to hold, and not oversteer the skis, but rather slowly and evenly steer the skis to

hold the arc. I need to also control the pressure at this point in the turn so that the edges can hold. I do this by flexing, not by adding weight to the skis, but rather an unweighting flexing move, to reduce the pressure so the

skis will hold. Often this flexing is not enough to control the pressure and I add to that a retraction move, or pulling my feet towards my body to unweight them so that they will hold the arc.

I steer my edged skis around across the fall line, and then, rolling my feet, I tip and turn them, I make a very quick edge change reaching my feet out to the other side. I want to make a nice round arc at the top of the turn, feeling my edges cutting the whole time. Just as in the bottom of the arc, I am actively pulling my feet, in the top of the arc, I am actively reaching with my feet to create a "round" top arc with feet and skis going further away from my body. Shaping the

top of the turn in a "round" arc, facilitates early edging of the skis at the top of the turn. My foot to foot weight transfer is early with the entire arc or "C" having more weight on the outside ski. Creating this smooth, greasy, "S" is the coolest sensation of short turns - the rolling of the feet and the skis coming back under you and out to the other side.

Now, go out and practice short turns again. They will not only help the dynamics of your larger turns, but they will also train your feet and legs to be more active and lively. This will greatly increase your agility and balance; it will become easier for you to react to unanticipated conditions and obstacle that you come across. So, go have more fun with your short turns.

Note: We chose to use the classic short swing turn as the "classic" older turn because it was much more dominant. However, there were those talented skiers in the era of long skis who could carve. They would also "carve" short radius turns with movement patterns very similar to today's short radius turns.

Other “Modern” Reaching Gliding Short Turn Images