

Classic to Modern Skiing Connection



**WESTERN CONVENTION
MAMMOTH LAKES, CA
APRIL, 2013**

**CONCEIVED BY PJ JONES
PRODUCED BY COOKIE
PRESENTED BY PJ JONES AND COOKIE**



Classic to Modern Skiing Connection

Obviously, skiing technique is, and always has been, equipment driven. As the equipment technology has evolved, so has the skiing technique. We began with long, heavy, wooden boards with no edges lashed to our feet clad with soft leather boots. Control of these “skis” required strong movements initiated from the upper body. Now we gracefully and lithely fly down the mountains on short, shaped “high tech” skis held to our “high tech” clad feet by “high tech” bindings.

The overall, most significant change in technique has been the evolution of the control movements for the skis. At first, with the unwieldy equipment, our body movements to control the skis were initiated and driven from the upper body. Now they are mainly initiated and driven from the feet and legs. This has been a progressive evolution that began with the introduction of hard shell boots and lighter skis with metal edges in the late 1950’s and early 1960’s. This evolution is still advancing as our skis have grown shorter with more shape, the boots stiffer laterally with our understanding trying to catch up.

PSIA formed in 1963 and has usually led, but sometimes lagged behind, the evolution of skiing technique. Early on, PSIA was still promoting a pivot point at the tips of the skis while the skiing public and racing community was already beginning to turn their skis with the pivot point closer to their feet. In 1975, PSIA led the world into the introduction of the Skills Concept which was accepted in 1983 by the International Ski Congress and hailed as the most significant and major contribution in 25 years. Along this same time, PSIA also changed the focus of the teaching industry to being student centered. So, what do you think is up for the future?

Classic to Modern Skiing Connection

HISTORICAL OVERVIEW

In the beginning, there was chaos, snow, wood and man. Then came metal, followed by plastic and fiberglass, followed by carbon fiber, followed by who knows what. Upper body rotary movements with up-unweighting was the first king (1900's - 1950's with the Arlberg technique, Emile Allais's French Technique, Stein Erikson's "reverse shoulder"). Rotary movements eventually worked their way down to the feet until lower body rotary movements with up-unweighting became king with pivoted turns. As the rotary movements worked their way down to initiating in the feet, the pivot point worked its way back towards the feet from the tips of the skis (1950's - 1970's with the Austrian classic counter rotation, wedelning, the French Christie Leger). Then followed a period of unrest with down-unweighting vying for dominance (1970's - 1980's with the French avalment, braquage, Jean Claude Killy's Classic French compression extension and Joubert's wide track rotary push-off). However, a new front was going to emerge that would champion the older up-unweighting premises and emerge victorious. The idea of a carved turn began to develop in the mid-late 1970's with the Italian's "anticipation" and Stenmark and Mahre's rounder carved dynamic turns, and the French "Super Parallel". The advent of the shaped ski in the 1990's made such "modern" carved shaped turns easier and more popular. So now we have our beloved carved turns, but we can still skid and pivot when desired. We sometimes move up, sometimes down, but mostly, we strive to move "foragonally". We strive to initiate both edging and steering movements with our feet and guide and steer our body. We edge, we cut, we control our speed with shape, but sometimes still with a pivoted skid. We embrace such diversity (but not during exams). Have we arrived? What is next? The more we change, the more we stay the same.

Classic to Modern Skiing Connection

ON-SNOW CLINIC OUTLINE

- 1908-20's: Arlberg Technique - Hannes Schneider, Otto Lang
Demos: Snow Plow
Traverse
Stem Christiana
Parallel
- 1940: Emile Allais powerful parallel / 1948: Emile Allais French Technique "Ruade" (horse kick)
Demos: Direct parallel/Rotation
Hop Christie/Rotation
- 1952: Reverse shoulder - Stein Erikson
Demos: Parallel
- 1955 and on: Classic Counter Rotation, Austrian
Demos: Snow Plow
Stem Christie
Forward Sideslip
Parallel Christie
- Mid 1950's: Wedeln
- 1963: PSIA formed at Big Mountain, Montana (and Alta, Utah)
- Mid 1960's: Christie Leger/Projection Circular
Demos: Stem Christiana/Stem Up/Stem Down
Christiana Leger
Virage Aval
- Late 1960's-70's: Avalment, Classic French compression/extension, Jean Claude Killy
Demos: Medium Radius
Short Radius
Bumps
- Late 1960's-80's: Joubert's rotary push-off, braquage (not supported by French, but by Aspen, Squaw Valley)
Demos: Linked Hockey Slides
Open Stance Parallel
- Late 1970's-mid 80's: Anticipation, Italy
Demos: Medium Radius
Short Radius

Classic to Modern Skiing Connection

- 1973-89: Stenmark (Mahre) combination counter rotation w/ rounder carved turns
 - Demos: Step Turns
 - Stem Step
 - Diverging Step
 - Skate Step
- 1975: PSIA introduces Skills Concept at Interski held at Czechoslovakia which is adopted internationally in 1983.
- 1979: PSIA promotes open stance and step turns at Interski in Japan
- Mid 1980's: Super Parallel, French w/open stance
 - Demos: Parallel turns
- Late 1980's: Modern Counter Rotation, Compression/ Extension by Austrian
 - Demos: Stem Christie
 - Short Swing
 - Medium Radius
- Mid 1990's: Modern Carved w/shaped skis - 1993 shaped skis gain acceptance. New shaped skis begin longer, with not much side cut and become progressively shorter with more side cut. Equipment lead to changes in technique: i.e. open stance, less counter, more two-footed skiing.
 - Demos: Wedge Turns
 - Wedge Christies
 - Open Parallel
 - Dynamic Short Radius
 - Dynamic Medium Radius

Classic to Modern Skiing Connection

CONCISE PROGRESSION IN SKI TECHNIQUE

- Stepped turn - flatter ski - up-unweighting - strong rotary movements initiated in the upper body
- Pivoted turn around the ski tips - flatter ski - up-unweighting - strong rotary movements initiated in the upper body - narrow stance
- Pivoted turn with pivot point closer to the feet - flatter ski - up-unweighting - rotary movements initiated in the lower leg/foot - narrow stance
- Pivoted turn with pivot point closer to the feet - flatter ski - down-unweighting - rotary movements initiated in the lower leg/foot - wider stance (not ever universally practiced)
- Carved, shaped turn with no pivot - edged ski - “foragonal” unweighting - rotary and edging movements initiating in the lower leg/foot - wider stance

Classic to Modern Skiing Connection

TIME LINE HISTORY OF SKIING

- 5000 B.C.: Primitive native carves the Rodoy petroglyphs in a cave, depicting a skier on two skis with one pole. Europe.
- 2500 B.C.: Oldest ski extant is made by a Scandinavian hunter, to be later unearthed in a peat bog near Hoting Sweden, now known as the Hoting ski.
- 400 B.C.: First written note of skis made by Greek historian Xenophon.
- 1206: Norwegian military skiers carry King's baby Haakon Haakonson to safety over mountains during Civil War, thus creating one of the most famous legends in backcountry skiing history.
- 1835: Sondre Norheim and friends begin to refine the skidded stop turns and the telemark turn, named for Norheim's home region, Telemark. Norheim and associates apply these turns to downhill skiing as sport.
- 1850: Sondre Norheim of Morgedal, Telemark, makes a binding heel strap out of a twisted willow root, thus allowing more lateral control. Pop culture tends to credit Norheim with only telemark technique, reality is that he and his contemporaries used whatever worked, including stem turns. Both the Christiania turn and the Telemark turn were used and developed at the same time. ("Christiania" is the name then of the Norwegian capital, now Oslo. "Telemark" is a county-like region in Norway.)
- 1866: Sondre Norheim and other skiers from the Telemark region of Norway demonstrate the Christiania skidded stop turn (could be called a "parallel" turn), and what is later called the telemark turn, in an exhibition competition.

Classic to Modern Skiing Connection

- 1908: Hannes (Johannes) Schneider begins refining the 'Christiania' (stem christie) turn, as a better technique for handling unwieldy wooden skis on steep terrain. St. Anton, Austria, Europe.
- 1920's and on: Continued founding of the Arlberg Technique. The Arlberg Stem Christie "Christiana": bow forward, rotate, start with uphill shoulder back and twist to give turning power.
- 1940: Frenchman Emile Allais' powerful 'parallel' ski technique gains popularity; based on unweighting and using no stem; the technique required a solid boot/ski connection, and the longthong heel lashing system ensued, as did steeper skiing.
- 1948: Emile Allais introduced the French Technique, inspired by the skiing of Toni Seelos, the Austrian slalom master of the 1930s. His system was built on parallel skis, body rotation and the hop, which he called "ruade" or horse kick.
- 1950: Howard Head invents functional metal/wood sandwich ski
- 1952: Stein Erikson uses "reverse shoulder" (look uphill and turn with feet together) to win Olympic Gold.
- 1955 and on: Classic counter rotation; Austrian, at end of turn, turn feet across hill, edge set, face downhill (short swing)
- Mid-1950's: Wedeln "to wag": Austrian, high-speed turns made in succession with both skis parallel while not noticeably setting the ski edges on a slope. Using this technique one's rear end wags like a dog's tail. New equipment allowed this technique to develop.
- 1957: Bob Lange, U.S., introduces the first plastic ski boots, soon to be known as 'plastiques fantastiques,' by appreciative French ski racers.

Classic to Modern Skiing Connection

- 1960: Metal sandwich skis become popular with racers.
- 1960's: Grooming begins in some mountains, but does not become prevalent until 1970's
- 1963: PSIA formed at Big Mountain, Montana (and Alta, Utah)
- Mid 1960's to present: Projection Circular, Christie Leger, French. This is sophisticated, open parallel turn with an emphasis on inclination and full body rotation, with body square over skis. New equipment allowed this technique to develop.
- 1966: Fiberglass alpine skis go on market. First designed in 1959.
- Late 1960's, 1970's: Avalment From the French 'avalér', to swallow, an absorption of a bump by lifting the legs ie: there is angulation but it comes from lifting the legs rather than lowering the body. Classic French compression extension, Jean Claude Killy
- Late 1960's to 1980's: George Joubert, rotary push-off, wide track, pivot slip, hockey stops, sink twist is braquage, his own technique in Alpe d'Huez, supported by Aspen, Squaw Valley, but not supported by the French.
- Early 1970's to mid 1980's: Anticipation, Italy, physical movement of upper body in intended direction of travel, no pivoted ski, but cutting and slicing-counter anticipation.
- 1975: PSIA introduces Skills Concept at Interski held at Cezchoslovakia which is adopted internationally in 1983.
- 1973 - 1989: Ingemar Stenmark, combination of counter rotation, modern dynamic direction change, rounder, carved turns, more "foragonal" movements, modern movements on longer skis so had to steer more. Changed the Austrians. Mahre brothers racing around 1976 - 1984 with same technique.

Classic to Modern Skiing Connection

- 1979: PSIA promotes open stance and step turns at Interski in Japan
- Mid 1980's: Super Parallel, Open Stance Dynamic Skiing by the French, very similar to modern skiing. Introduced at Interski in Italy in 1983.
- Late 1980's: Modern Counter Rotation, Compression/Extension Turn by the Austrian
- 1981: Head ski company introduces first shaped ski, "the natural easy carve". Tested the market for a few months, didn't sell, ahead of its time.
- Mid to late 1980's: Radical change in alpine ski racing with advent of break-away plastic gates.
- 1993: Shape skis become accepted by skiing public.
- Mid 1990's: Change to modern shaped, carved turns from pivoted short swing turns. Shape skis start out longer and not much sidecut and still a fairly narrow waist
- Early 2000's: Skis get shorter, have more sidecut and now come in wide variety of widths; with narrow waisted radically shaped slalom skis still ruling the groom and "fatter" shaped skis for the powder and crud.
- Mid 2000's: Wider, longer, rockered skis are introduced for powder and a new technique with more inclination begins. However, shorter, narrower skis with more side cut still dominate the groomed and even much off piste skiing.
- Late 2000's to Present: The rocker concept is modified and added to narrower skis with more sidecut, giving rise to a whole variety of skis with various "early rise" tips, "early rise" tails, yet with cambered underfoot - AND everything in between! However, still have the now "older" shaped skis!