From the Top

By Witold Kosmala
PSIA-E Alpine, Level III
K2 Ambassador

October, yes October. What a wonderful month. Leaves are changing, air is cool, ponds are full, and Halloween around the corner. Fall is here! I don’t know about you, but I am ready to scrape off my summer wax from my skis. Riding on a Trikke and on a bicycle is fun, but nothing like skiing on the white stuff. I can’t wait to get on a lift and then enjoy my downhill, without having to first climb it on my bike.

More and more people are beginning to talk about environmentally friendly, “green” skis, boards and wax. A number of companies use bamboo in making their skis and boards claiming that it is rapidly replenishable and thus, sustainable. The company called Green Wax supposedly uses a blend of naturally sustainable ingredients to make their wax. It is supposed to be biodegradable, so after it is scraped off, it should protect future of our mountains. Unfortunately, it is somewhat toxic during application. In addition to all this, ski areas are beginning to advertise themselves as more eco-friendly as well. Mount Snow in Vermont claims that it is the most environmentally friendly resort in the US. I suppose that “green” will be additional criteria that Ski magazine will have to consider when rating the US ski areas in the future.

Even the popular actual colors of the graphics on skis and boards are in shades of green. How about green ski boots on the cover of the September 2011 issue of Ski magazine? Clothing is also picking up on green colors. Many people already ski on green grass. Before we know it we will be skiing and riding on green snow.

Some of you are still trying your hardest to tease me with all your skiing/riding over the “summer,” as well as all those other fun activities. So, how should I react if someone keeps sending me photos from the slopes and tells me all about meeting and skiing with some skiing/riding celebrities? Mike Simmons is one of those people. You all can judge for yourselves. Just look at the photo he send me. (Mike, don’t listen to me. I am just talking. I really appreciated everything that you send me. The same goes to everyone else that did the same.)

It was also very enjoyable to hear from a number of our Northern friends who indicated that they had no idea we had such big mountains in the South until reading our last issue of Peak Performance. I am so glad that our publications are read. I truly enjoy hearing every little comment anyone has to say pertaining skiing, riding and Peak Performance. To those of you who commented about the great looks of our publica-
tions, I have to admit that that is work of my son, Konrad. He takes his time away from his intense studies at the University of North Carolina at Chapel Hill to make these newsletters look really professional. Konrad, on behalf of everyone member of our Ski/Snowboard School at Sugar Mtn. I graciously thank you. I also thank Dr. William Bauldry for his kind placement of our publications on my Appalachian State University’s web page

www.mathsci.appstate.edu/~wak/.

Our next issue of Peak Performance will be next month. Please, send all your correspondence me at:

Kosmalaw@bellsouth.net.

November is when our skiing and riding will begin. Are you ready?

Main Course

The Swiss Got it Right

By KC Gandee
Snowboard Program Director at Killington Mountain School
PSIA-E/AASI Snowboard Examiner Coach

After 14 years of teaching snowboarding, I’d like to go back to some of the early riders I taught and apologize. I’m sure that, despite my good intentions, I taught them some nasty habits. Number one on the nasty list, with a bullet, has to be using too much front foot. I was an AASI champion in the early days- twist, twist and more twist!! Unfortunately, I was really good at emphasizing the importance of the front foot initiating board twist movement. I can still spot some of my early students on the hill leading with their front leg’s hip into their new turns, just like I asked. To me, it looks like war. You see the Swiss got it right. Neutral is the way to be. If riders hyper-focus on their front foot to twist the snowboard, they’ll actually move their body up over the front of the board taking precious pressure away from the board’s tail. The outcome of this movement pattern is all too easy to see, especially at higher levels of riding- the tail of the board slips of firm snow and may even come off of the snow at the top of a rider’s turn. Sandwiched between too much front foot and agro back foot is where I teach all riders to live now, in peace and harmony. You too can be like the Swiss if you follow these simple steps.

Swiss form the Start

Even in your warm-up drills, stance exercises and straight glides, have riders remain neutral with their hips centered between their bindings. Too far to the nose is just as damaging as too far to the tail. I like to pair riders up for straight glides and have them observe each other. I ask them to try straight glides in the neutral stance that I have described for them, then front foot heavy, followed by back foot heavy. By defining their range, I’ve given cues for feelers and intrinsic feedback. By having partners describe each other’s straight glides, I’ve set up reciprocal learning and plenty of opportunities for the riders to see what should or should not be happening. I ask partners to describe for each other their straight glides in terms neutral, positive towards the nose or negative towards the tail. For example, a rider that has her hips lined up exactly over her front foot would be “plus 5.” A rider that has her hips lined up just towards the back foot from center would be “minus 1.” The goal is to score 0! Have riders practice and provide feedback for each other while you help when needed.

The Shortest Distance Between Two Points…

For riders that are already linking turns but are heavy on the front foot, we’ll begin before we even strap into our boards. I ask the rider to make turning movements standing in a safe flat area. Usually, they will push their hips forward and then onto their imaginary new edge, as if they were using their leg as a joystick controller - towards the tip of the board then around. I’ll then ask them to try to go straight from one edge to the other without going up and around. I get them to agree that this is faster than the previous method and keeps them centered on the board. We then focus on one edge change only, for example heel to toe, so that we can keep it simple. We practice moving our hips laterally across the
board from heel to toe without rolling towards the tip of the board 5-10 times for repetition. We’ll then strap into the
board and try the same thing on mellow terrain, only focusing on the one edge change, working slowly until the change
happens across the fall line. I usually tell the rider that anything new is going to feel funky, bad, weird, horrible, unstable
(insert negative adjective here) if they are doing it correctly - different movements rarely feel awesome the first time!
Once the rider has changing edges from a neutral stance dialed on one edge change, we’ll then focus on the other, only
putting it together when both have been mastered.

Everything in Moderation

Try to keep even your language Swiss- in speech, not language. It’s too easy to speak in absolutes to newer riders in
ways that they will interpret as “Always do this.” For example, if we say “Move forward,” “get forward,” “stay forward,” etc. many riders will then assume that they should ALWAYS be in a forward stance with their weight towards
the nose of the snowboard. Try instead to emphasize the importance of constant movement on the board, but always in
and out of neutral.

Avoid Being Drawn into War

As an instructor, you already know that every lesson is different and what works for some students may not work for
others. If you run into trouble with staying neutral, I challenge you to vary your delivery rather than the content in this
case. If changing edges with lateral movements across the board isn’t working, try switching terrain or changing the fo-
cus from body movement to board performance rather than bailing back to the old tried and true roll the knee around the
turn method. For example, instead of giving movement cues, have them work more on tipping the board from edge to
dge than twisting it, and so on.

Stay Swiss

I love America as much as the next guy, but in this case, the Swiss have it right, stay neutral! The more challenging the
terrain becomes, the more important it is for riders to be able to effectively pressure the tail of the snowboard early in
their turns. If we let riders become front foot heavy, even in the earliest stages of riding, we risk holding them back later.
By stressing the importance of keeping the hips between the bindings early in a rider’s career, using lateral movements
later and always minding our language, we’ll be able to keep riders from becoming tip dependent. Now, land wars in
Asia, that’s another story.

KC Gandee is the Snowboard Program Director at Killington Mountain School; an alpine, freestyle and snowboard
academy at the East's biggest resort. KC has been teaching snowboarding since 1997 and served on the AASI Snow-
board Team 2004–2008. He is currently the PSIA-E/AASI Snowboard Examiner Coach and an Advanced Children's
Educator (ACE) Team Member. KC and his wife Courtney live in Rutland, VT with their two golden retrievers Virginia
and Maggie Mae. When not snowboarding, KC can be found rock-climbing, stand-up paddling, whitewater kayaking
and enjoying most anything outdoors.

So That’s Why it is!

By Gordon Carr
PSIA-E Alpine, Level II

Here it is again, Fall, the leaves are a’turnin’ and snow is on the way. Those of you who have read my previous Peak
Performance submissions will remember that at times I write some strange stuff. This article will be no different, in fact
I may be reaching some sort of outer limit! Over the summer I read an impressive book, BEYOND BOUNDARIES, The
New Neuroscience of Connecting Brains with Machines (Times Books, 2011) by Miguel Nicolelis. Dr. Nicolelis is the
Anne W. Deane Professor of Neuroscience at Duke University and founder of Duke’s Center for Neuroengineering. His
book is probably THE book which documents the origins of the most far reaching and beneficial technology to help peo-
ples with severe paralysis due to spinal cord injury! It also sort of explains for me something I’ve long had puzzled ques-
tions about: the brain-snow tool performance relationship. As to the former: for those of you on the young side of 40,
there is no doubt you will live to see artificial limbs and machines controlled directly by human neural wave patterns!
These brain-robotic machine interfaces will be based upon computer algorithms which transform neural cloud micro-electric impulses into digital machine instructions which will then drive various robotic devices. This has already been done in Dr. Nicolelis’s Duke lab with Idoya, a small rhesus monkey who “drives” the walking of a robotic machine in Japan, half a world away, using only the computer algorithms interpreting her brain’s electrical activity! She herself is NOT walking, she is immobile; she is only “brain imagining” walking! What a truly fantastic world we live in! Coincidently the September 2011 National Geographic reported on the development of a bionic carbon fiber exoskeleton, a wearable robot, which will help paraplegics walk again! While this robot takes computer generated “commands” extrapolated from the pressure exerted alternately on hand held canes to activate leg exoskeleton movement, this is just one step away from brain activity interpreted by computer algorithms becoming the interface to the robotics! In fact, based upon Dr. Nicolelis’s work, my opinion is that the surgical implantation of an electrode array in human brains is still just too risky for actual clinical application. But that is merely a technological barrier and one that will fall in your lifetime. Of course there are huge technical and research break-throughs described in this book. There are also some plain ole poignant vignettes which brought shivers to my spine (sort of “shiver me timbers” moments). To get a full picture of this wonderful, almost surreal, new world you will have to read the book.

Bear with me I will get to skiing and riding. But the above is so fantastic and of such potential benefit to people with paralyzed extremities that I envy those of you who will live to see this become reality… to see war veterans with traumatic brain injury and others with spinal cord injuries have mobility and independence again! What hope for our future! But now on to our beloved snow sports.

Dr. Nicolelis’s entire research program was in counterprompt to the popular, but apparently incorrect, notion that motor movements are linked to specific parts, even specific neuronal cells in the brain’s cortex. His work suggests that the brain is not simply a passive recipient of sensory input. The brain actually is an incredibly complex organ which interacts in an active way with external reality and through this interactive dialogue creates a sense of “self”, that vibrant distinction between the “ME” and “NOT ME”! (You want the classic demonstration of the psychological distinction and rigidity of this “me/not me”? We naturally swallow about 1 quart of saliva a day without thought or consideration. Collect a cup of spit and think about drinking it… that’s ME/NOT ME!! I’ll bet you got that distinction loud and clear!) In that living dialogue between brain and external reality which defines the self, the electrical neuronal activity which underlies all brain activity is more of a neuronal cloud function analogous to the computer cloud which drives the internet “web” where no single computer is the web, just as no single neuronal cell or brain part is the created and ever evolving “self”. In both these dynamic “cloud” systems, there is no “one and only one way from point A to point B”. Through Dr. Nicolelis’s research it becomes apparent that “self” is a fluid and plastic functionality open to expansion through continual interaction with the external reality. Most amazingly, specific tools become incorporated into self and are no longer external things which we manipulate. Most notable examples are sports tools… tennis rackets, golf clubs, skis and snowboards, etc (we’ve gotten there, almost), and musical instruments like Witold on his violin where it is obvious the violin and Witold are One, or computer joy sticks which let young AF pilots sit at consoles in Nevada and incorporate drones flying in Pakistan into their “selves”, and the list is endless. Any master (emphasis on “master”) of any tool interacting in the external reality has that tool as an extension of self, and the brain is constantly testing, exploring and revising that sense of “self-tool”.

That then is the scenario against which we teach snow sports. Newbies come to us to learn and play and have fun with (snow) tools which are clearly, to them, external objects… heavy, awkward “things” and not exactly intuitively predictable in their movements. Now here comes my long standing question about skiing which is implied in the title of the article: “Why can you not think your way to being a good skier (rider)?” “How come you have to get your brain out of the way to let yourself ski or ride well?” Of course we all know about reaction times and logical decision making in our thinking. But what does this really mean when translated into or measured against high speed sports or other activities which require lightening fast motor movements?

The answers suggested by Dr Nicolelis’s work are twofold. First, do we “think about” or “logically decide” or consider, ponder, reflect, choose, believe, muse, surmise, meditate, or opine when moving our arm, hand and fingers to, let’s say, pick up a pencil or when moving our legs, feet and hands to run the gears on a paddle shift Ferrari (I only wish)? No, of course we don’t “think” about these movements in any detailed way! We most assuredly do not think about the specific muscle movements in sequence required to execute the movements. Our body parts are “us” and they just DO…the intent is the motor movement. And so too with tools which have become part of our “self” through repetitive practice; the intent is the action. No one who has heard Witold “sing” a long string of 1/16th notes in an arpeggio with his violin can possibly believe he is “thinking” about how the fingers on the left hand and the bow in the right hand have to be moving.
To paraphrase Yoda: “There is no thinking, there is DO or NOT DO” in that flashing world of musical virtuosity. So, too, is it in all sports and rapid motor action activities where ANY thinking is a distraction and interferes with performance quality and execution. This is, however, the state of our “thinking and worrying” Newbies, who come to us trying to learn and think about all the “stuff” in our snow world, believing if only we say enough and if only they learn and remember enough we can and will talk them into learning to ski or ride! Sure there are tricks like “place your skis across the fall line before clicking in”, “scrape your boot soles when snow or ice collects before stepping into the binding” and a gazillion other Helpful Hints from Holly, but NONE of this is terribly related to the fundamental gig their body needs to develop: dynamic balancing while moving in a new environment. You and I have incorporated our snow tools into our selves and have the dynamic balance down pat (well, usually). In point of fact, while moving down the slope have you ever actually “tired to make yourself fall”? It is hard to do because your body-ski-self has the dynamic balance down pat. The body-ski-self, with a neuronal cloud separate from and distinct to your “deciding-to-fall” thinking brain, makes all sorts of muscle moves necessary to remain upright in opposition to and with priority over the thinking brain. Ditto… on a moving bike; try to lay it over and pay attention to what your body-bike self does to stay upright. So “thinking about” snowsports gets in the way of the newbies’s person gaining enough experience to begin taking external thing-tools and making them part of “self”. And we instructors who talk them to death are only colluding in the delusion they have about needing “to listen to us and learn” things. Get them moving! We instructors just don’t have good words to translate into and instruct others about the core muscle movements needed for and involved in dynamic balancing. Have Wendy Snyder tell you some day the moves necessary to perform a double axel on ice skates and then you do them… Yeah! Right!

Second, in Dr. Nicolelis’s research, which trained Idoya to “think” walk movements and have only the neuronal cloud electrical activity “drive” robotic walking movements in a machine in Japan, they found that the time period of all the neuronal translation through the computer algorithms to Japan and the robot’s movements and then the visual feedback to Idoya all had to be in a critical time window of under 250 milliseconds. Two hundred fifty (250) milliseconds….1/4th of a second! Nothing known about reaction times allows for sensory neuronal input with cortical processing and then motor neuronal enervation of muscles in that short a time span. And here is the rub… Skiing or riding at 60 miles per hour covers 88 feet per second… 22 feet per ¼ second! You really believe there is rational decision making or any thinking involved in the lightening fast adjustments racer-boot-skis-self makes continually to ever changing snow and trail conditions at that speed? Even at mortal recreational skier/rider speeds of 15 mph, you are covering 5½ feet every ¼ second….22 fps (one thousand and one…one th…), and even here your person-boot-ski-self is accomplishing constant subtle adjustments to changing snow and trail conditions quicker than can be imagined. The analogy is something like consciously trying to specifically think about and control each muscle movement involved in waving your arm wildly and rapidly or even just clapping your hands. Want to go for dancing and conscious thought control of the involved muscle movements? Witold, unpack the Stradivarius and polish off a few lickity-split scales and let people watch your fingers. Things just happen too rapidly to have conscious decision-making involved in these kinds of activities and this is why you just can’t think your way to personal snowsport proficiency or talk others into proficiency. You have to move to learn and move often enough and long enough to have your snow tools become a part of your expanded “self”! Then it is no longer “I’m going skiing with my boots and skis” but rather ‘I, my ski-boot-self, am going skiing (riding).” Then you have crossed a subtle but transformational hurdle. Hey, I’ve finally gotten my long standing question answered in some detail. For the two of you out there who have gotten past the first paragraph and read this far, I’m willing to discuss a loan of Dr. Nicolelis’s book. Now everybody put effort in it this year and collectively…

THINK SNOW
More Later

Another Type of a Winter Job

By Witold Kosmala
PSIA-E Alpine, Level III

Until about 10 years ago, our brothers and sisters north of the world’s longest friendly border had minimal production of diamonds. Since discovery of diamonds in Canada some 1,000 miles north of the US border, Canada became 3rd largest diamond producer in the world, next to Botswana and Russia. Currently Canada has 2 diamond mines with more on the way, and produce 12 million carats per year worth about 1.5 billion US dollars. One problem is that these mines are lo-
cated in rugged Northwest Territories with practically no roads. If you want to go anywhere, you have to fly. So, how can approximately 300,000 tons of explosives, steel, fuel concrete, and so on be delivered by little planes each year? The answer is: trucking through about 370 miles of ice road.

In early November, winter comes to northern Canada. Temperatures plummet, the lakes freeze as well as all the marshlands. Usually in late December, when the ice gets one foot thick, snowplows remove insulating snow off the ice to speed up the thickening process. This is a very tricky job since the ice is still thin and the trucks have a short wheelbase and breaking through the ice is pretty likely at that time. By late February the ice is 3 and a half feet thick and can support 70-ton trucks. Now the rush to carry all the needed equipment begins, even though temperatures dip to 70 below with horrible wind chills. There is not much time before spring comes and ice begins to melt.

It is hard to imagine what the truck drivers go through trying to make all the deliveries. Some seasoned drivers try to make 2 or even 3 trips in 24-hour period with at times triple loads on one trip. Whenever they are working, they are making good money. If their truck breaks, they are not only not making money, but spending money on repairs. Sometimes the ice breaks and the whole truck and load go under. Then they lose a lot of money and road closes until a detour is prepared. If their truck breaks down and the driver can repair it on the road, then a lot of costs and time can be saved, but due to bitter cold, wind and hungry animals they cannot perform lengthy repairs. Staying outside of their truck for longer periods can cause sickness or hypothermia. In addition, a standing truck has higher chances of breaking through the ice. Main causes of truck breakdowns are pulling too heavy loads and extreme temperatures. Also, driving too fast creates vibration, which causes both ice and truck to break.
Additional dangers are the sun-melted ice due to its slickness as well as the refrozen ice due to its weakness. Violent storms are also not uncommon. Other issues are the environmental concerns, like leaks in the trucks and driver bathroom stops.

It is hard to imagine how hurried and dangerous ice truck drivers’ lives are during their usually 4-month long delivery season. For many people just a simple drive through an ice patch on a road with their little car is nerve-wracking. Or, walking on a frozen deck. Here, ice truckers drive huge loads in huge trucks in desolate places on ice. Since, at first, the day is only 4 hours long, their lives are mostly in the dark. No wonder their job is labeled as one of the most dangerous jobs out there, (and because of that they cannot obtain health insurance.)

## Skiing Tips

### Pole Touch vs. Blocking Pole Plant

**By Witold Kosmala**  
*PSIA-E Alpine, Level III*

**Is there a difference between a “pole touch” and a “pole plant?” If so, what is it?**

Yes, there is a tremendous difference between the two.

**Pole touch:**

That’s just what it is – a touch. You touch the snow with the tip of your pole. This is done in the transition when you do not need big turning forces, like in long-radius turns while not moving extremely fast. Even in the retraction turns, which are short and snappy you do not need much more from your poles than a touch, (unless you are in a slalom course where the pressures are much greater.) This is because in the retraction turns when you reach to a belly of the turn far enough with your skis, they will be on a high edge and will turn for you. You just pretty much need pole touch for timing and rhythm. In a pole touch the pole’s basket and pole’s grip are parallel to the skier, and applied with the hand that is on the downhill side of a skier.

**Pole plant:**

The term “pole plant” is actually an old term from the old school when skis were not shaped. When skis were straight like a pencil, you needed all the turning forces you could get, and that is what pole plant helps you with. In the new school with shaped skis we often enhance this expression by saying a “blocking pole plant.” This term could be confusing making one think that skier is to block themselves with their pole in order to stop. That is not the case. The pole blocks a skier’s motion on one side only, which gives the skier a rotary movement. When skiing short radius turns, in the transition the wrist of the downhill poling arm needs to be cocked so that the wrist is higher than the elbow, and the tip of the pole is put into the snow 2 – 3 feet directly to the side of the downhill ski boot. (However, on very steep slopes the wrist cannot possibly be cocked that much, and in racing blocking pole plant is used close to the tips of the skis in longer radius turns as well.) The inside part of the wrist should point toward the belly of the coming turn. Thus, the tip of the pole is further from the ski than the length of your flexed arm, so the pole is planted at an angle.

If the pole is planted at an angle, the snow will push on it and the force will be transferred to your body through your arm. This force will create a torque on your body about its balance axis providing a rotary force. Amount of this force is controlled by the angle of the pole, its tip’s distance from the body, and duration and strength of resistance to it by your arm and shoulder. The further away the tip is, the firmer the planting, and longer the hold to the pole will result in greater the turning torque. Don’t be surprised if your pole bends a little. None of this can be done when using only a pole touch.

What happens is that the pole plant should occur in the transition when the skis are flat on the snow. When the pole plant is firm enough, it will stop the upper body from rotating. In that case all the twisting forces will go to your feet. Since the skis are flat, they will easily turn toward the new turn.
Where should the blocking pole plant be used? It should be used when you need twisting forces in your feet, like in short swing, steeps, moguls, crud and all racing.

Exercises that help in mastering the blocking pole plant:

- Perform bull-fighter’s turns on a blue slope.
- On a very gentle slope perform a blocking pole plant and brace yourself on the pole strap and watch how you circle around the planted pole.
- On a very gentle slope plant both poles firmly on either side of you. Brace yourself on pole straps and repeatedly hop and point skis from one direction to the other, about 45 – 90 degrees.
- Make a hockey stop with planting a blocking pole straight down the fall line as you stop. Try spraying as much snow as possible straight down the hill.
- In a selected area, make as many short radius turns as you can without picking skis up from the snow. If you have a partner, count how many turns you can do versus your partner.
- Perform double pole plants, meaning plant both poles on one side together. This will help you to keep the uphill arm moving forward and preparing for its pole planting.

Common mistakes in performing a blocking pole plant:

- Arm is dropped after the pole plant. This will cause shoulder rotation and disrupt correct stance. Also, this arm will be late for its turn to plant the pole on the next turn. Think about shifting from the 2nd to the 3rd gear in a stick shift car.
- Pole plant is too weak and does not stop the upper body rotation, counter-rotation is not attained, skier rotates upper body too much, faces uphill, and loses edge grip with the ski tails resulting in a fall.
- Pole plant is performed too late, after ski steering has begun. This results in useless pole plant and was preceded with hip and/or shoulder steering instead of feet.
- Pole plant is performed too early. If the skis do not release the edges right as the force acts on the skier, all the turning forces dissipate.
- Blocking pole plant is not oblique enough to do any good.
- Basket of the pole is planted too close to the ski, giving hardly any twisting force.
- The uphill arm is dropped, resulting in too much shoulder rotation and being late in planting the pole for the next turn.
- If not performed properly, skier can obtain bad habits, like stemming and upper body rotation, resulting in a weak “inside half.”
- Performing the pole plant on the outside of a turn.
- If the arm is too weak and the pole comes back at the skier, it will knock him/her into an incorrect stance.
- The pole’s basket is placed too close to the tip of the ski. This might make the skier trip on the pole.
- Arm movement stops and then starts up again. This gives the skier a jerky ride. Performance is jeopardized by abrupt movements in the arms.
- Skier is leaning back and blocking pole plant makes it worse.

Choosing the right pole:

Ski poles come in different sizes, shapes, prices, and are made of different materials. They are extremely important part of your equipment, so they should be carefully chosen. Below is a list that you should consider going through when looking for poles that are just right for you.

What will you use the poles for? Is it going to be for racing, for skiing powder, moguls, or other terrain? Your choice of poles will be determined by their purpose. We will concentrate on poles for general free-skiing purposes.

Materials. Ski poles are made of different materials: Ski poles can be made of aluminum, carbon/graphite, or a composite material. You should look for a pole that is strong, light, and when tapped on the ground it does not vibrate excessively. Thin poles are usually more aerodynamic and usually quicker to swing around (that is, have a small swing
weight.) Look for poles that are stiff, but yet have flexible shaft.

**Pole baskets.** There are a number of different baskets available: racing baskets, those larger ones for powder, and other smaller baskets for firmer snow conditions. Some poles come with interchangeable baskets.

**Pole grips.** Making a good decision pertaining to pole grips is crucial. You should choose poles with grips that will allow you to easily move your hand from holding the top of the pole to the normal position and back. Furthermore, when using grips with straps, be sure you hold the poles correctly. Put your hand from the bottom of the strap, as in the photos. This way, if you fall, your pole will drop and will not hang on your thumb and wrist lowering a chance of breaking it. In addition, you can rest your wrist on the strap for more powerful grip. However, strap-less grips where the glove interlocks with the pole provide their own advantages, like being able to easily detach the pole from the glove when entering tree slopes. If you race, you might choose to get poles with wrist guards.

![Image of pole grips](image)

Put your hand from below through the strap, as I am demonstrating in the photo sequence. When you grab the pole, the strap should be between your hand and the handle. If you don’t grab the grip, the pole should drop down. Also, note that you can support yourself on the straps. You can also easily grab the pole from the top to push. But, don’t forget to take the strap off when you ski the trees. Just grab the pole together with the hanging loosely strap.

**Right length.** The correct pole length is imperative. Poles come in two measurements: inches and centimeters, and are sold in 2 inch, or 5 cm, increments. There are charts available to determine the “correct” pole length for a person of certain height. But, these charts are not always appropriate since people have different length legs, sloping shoulders, and different lengths of upper arms. It is best to measure yourself by turning the pole upside down when in an athletic stance and placing your hand under the basket as the grip is on the ground. Your lower arm should be parallel to the ground. Take into consideration high boot souls, skis and binding risers by probably adding a couple of inches. If you are between the sizes, beginners and intermediates should choose to go for the longer size and advanced skiers for shorter. Advanced skiers normally have lower stance and also shorter poles permit them in moving further away from the mountain. Remember that the pole that is too long will put you in the back seat by pushing your shoulders back. On the other hand, if the pole is too short, it will still put you in the back seat by making you squat and will tire out your back. If you are to spend most of your time skiing bumps or powder, choose poles that are about 2 inches shorter.

**Health Course**

Almost all varieties of hot dogs contain sodium nitrite which some researchers allege are carcinogens. Sodium nitrite is a chemical salt used as a preservative and flavor enhancer in hot dogs, wiener, and sausages. It is particularly effective against botulism strains. Some consumers have reported other health problems from ingestion of sodium nitrite, such as sudden drops in blood pressure. The studies have found that just one 50-gram serving of processed meat (about the amount in one hot dog) a day increases the risk of colorectal cancer, on average, by 21 percent.

There is something about a car race that encourages hot dog consumption. Last year, more than 1.1 million hot dogs were sold during the Indianapolis 500. This past 4th of July, Americans scarfed down about 150 million hot dogs.

*By Witold Kosmala*
Correction and Information about PSIA

(Professional Ski Instructors of America)

We express our sincere apology for a typo made on page 3 in the previous issue of Peak Performance. In the article on the PSIA clinic at Sugar Mountain, NC last March we stated that PSIA had 7 Divisions, whereas it actually has 9 Divisions. We appreciate so many of you writing back indicating this typo. It is good to see that our readers are thorough and knowledgeable.

Thus, to make the record straight, here is the list of all 9 Divisions of PSIA:

- Alaska Division
- Central Division
- Eastern Division
- Intermountain Division
- Northern Intermountain Division
- Northern Rocky Mountain Division
- Northwest Division
- Rocky Mountain Division
- Western Division

Our Eastern Division, which has more members than any other Division, is made up of 7 Regions:

1. States of New Hampshire and Maine
2. State of Vermont
3. States of Massachusetts, Connecticut and Rhode Island
4. States of Pennsylvania and New Jersey
5. Western New York State
6. Eastern New York State
7. States south of Pennsylvania and New Jersey

Our Region is number 7 and is comprised of

- 4 PSIA snowsports areas in West Virginia
- 5 PSIA snowsports areas in Virginia
- 1 PSIA snowsports area in Maryland
- 4 PSIA snowsports areas in North Carolina

plus 2 ski clubs with members in DC and Virginia. Our PSIA-E Representative is Walter Jaeger (wjaeger1@mac.com) and the Region Director is Paul Crenshaw (pcrenshaw@massresort.com). PSIA-E office is in Albany, NY and has lots of information posted on www.psia-e.org.

Turn to Wisdom

LIFE IS:

- Life is like a dream. Sometimes it is good and sometimes it is bad, but in the end it is over.
- Life is like a book. Everyday has a new page with adventures to tell, things to learn and tales to remember.
• Life’s like a boom-a-rang. The more good you throw out, the more you receive in return.
• Life is like walking through snow. Every step shows.
• Life is like a hot bath. It feels good while you’re in it, but the longer you stay in, the more wrinkled you get.
• Life is like a turtle. You won’t get very far unless you stick out your neck.
• Life is like a novel. You are the author and everyday is a new page.

**Thoughts for the Month**

I thought that this time I will touch on some different ideas.

• What is your one most important goal in life? How about a list of top 10?
• Why an idea that does not bring in a financial profit is called a bad idea?
• Why do people spit into public sinks in public restrooms and not rinse their spit down the drain?
• Why don’t people flush public commodes?
• Why do people drop their cigarette butts on the ground? Banana peelings also eventually decompose and, thank goodness, only cyclists drop them on the road.
• In your opinion, what does “successful in life” mean?
• Whom would you rather invite to dinner, your boss or your cleaning person, and why?
• What can skiers learn from a cat?

Elaborations on last month’s **Thoughts for the Month**.

**Is there any reason why zero training before the ski season would be good for skiing?**

Answer. If you are physically not ready for skiing, then you can easily tell if you have a correct stance when skiing. If you are “sitting back” your muscles will scream at you almost right away since they are not used to that. If you are physically fit, you might not know that you are over-tightening your thighs, over-bending in the knees and straining lower back. If that is the case, you might have to wait and find out from your hurting knees that you are too far back.

**Can you name the highest peak in each State?**

<table>
<thead>
<tr>
<th>State</th>
<th>Peak</th>
<th>Elev (ft.)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Cheaha Mountain</td>
<td>2,405</td>
<td>35</td>
</tr>
<tr>
<td>Alaska</td>
<td>Mount McKinley</td>
<td>20,320</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Mount McKinley is the highest peak in North America.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>Humphreys Peak</td>
<td>12,633</td>
<td>12</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Mount Magazine</td>
<td>2,753</td>
<td>34</td>
</tr>
<tr>
<td>California</td>
<td>Mount Whitney</td>
<td>14,494</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>(Mount Whitney is the highest summit in the 48 American joined states.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is the 17th highest in America, the other 16 all being in Alaska.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Peak Name</td>
<td>Elevation</td>
<td>Rank</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------</td>
<td>-----------</td>
<td>------</td>
</tr>
<tr>
<td>Colorado</td>
<td>Mount Elbert</td>
<td>14,433</td>
<td>03</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Frissell-S. Slope</td>
<td>2,380</td>
<td>36</td>
</tr>
<tr>
<td>Delaware</td>
<td>Ebright Azimuth</td>
<td>442</td>
<td>49</td>
</tr>
<tr>
<td>Florida</td>
<td>Lakewood (Britton Hill)</td>
<td>345</td>
<td>50</td>
</tr>
<tr>
<td>Georgia</td>
<td>Brasstown Bald</td>
<td>4,784</td>
<td>25</td>
</tr>
<tr>
<td>Hawaii</td>
<td>Mauna Kea</td>
<td>13,796</td>
<td>06</td>
</tr>
<tr>
<td>Idaho</td>
<td>Borah Peak</td>
<td>12,662</td>
<td>11</td>
</tr>
<tr>
<td>Illinois</td>
<td>Charles Mound</td>
<td>1,235</td>
<td>45</td>
</tr>
<tr>
<td>Indiana</td>
<td>Hoosier Hill</td>
<td>1,257</td>
<td>44</td>
</tr>
<tr>
<td>Iowa</td>
<td>Hawkeye Point</td>
<td>1,670</td>
<td>42</td>
</tr>
<tr>
<td>Kansas</td>
<td>Mount Sunflower</td>
<td>4,039</td>
<td>28</td>
</tr>
<tr>
<td>Kentucky</td>
<td>Black Mountain</td>
<td>4,145</td>
<td>27</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Driskill Mountain</td>
<td>535</td>
<td>48</td>
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<tr>
<td>Maine</td>
<td>Katahdin (Baxter Peak)</td>
<td>5,267</td>
<td>22</td>
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<tr>
<td>Maryland</td>
<td>Backbone Mountain</td>
<td>3,360</td>
<td>32</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Greylock</td>
<td>3,491</td>
<td>31</td>
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<tr>
<td>Michigan</td>
<td>Mount Arvon</td>
<td>1,979</td>
<td>38</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Eagle Mountain</td>
<td>2,301</td>
<td>37</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Woodall Mountain</td>
<td>806</td>
<td>47</td>
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<tr>
<td>Missouri</td>
<td>Taum Sauk</td>
<td>1,772</td>
<td>41</td>
</tr>
<tr>
<td>Montana</td>
<td>Granite Peak</td>
<td>12,799</td>
<td>10</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Panorama Point</td>
<td>5,424</td>
<td>20</td>
</tr>
<tr>
<td>Nevada</td>
<td>Boundary Peak</td>
<td>13,143</td>
<td>09</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Mount Washington</td>
<td>6,288</td>
<td>18</td>
</tr>
<tr>
<td>New Jersey</td>
<td>High Point</td>
<td>1,803</td>
<td>40</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Wheeler Peak</td>
<td>13,161</td>
<td>08</td>
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<tr>
<td>New York</td>
<td>Mount Marcy</td>
<td>5,344</td>
<td>21</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Mount Mitchell</td>
<td>6,684</td>
<td>16</td>
</tr>
<tr>
<td>North Dakota</td>
<td>White Butte</td>
<td>3,506</td>
<td>30</td>
</tr>
<tr>
<td>Ohio</td>
<td>Campbell Hill</td>
<td>1,550</td>
<td>43</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Black Mesa</td>
<td>4,973</td>
<td>23</td>
</tr>
<tr>
<td>Oregon</td>
<td>Mount Hood</td>
<td>11,239</td>
<td>13</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Mount Davis</td>
<td>3,213</td>
<td>33</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Jerimoth Hill</td>
<td>812</td>
<td>46</td>
</tr>
</tbody>
</table>

(While Bear Mountain is the highest summit in Connecticut, the highest point in that state is on the south slope of Mount Frissell. The peak of Mt. Frissell is in MA; CT's highest point is along the South Slope on the way to the top.)
<table>
<thead>
<tr>
<th>State</th>
<th>Peak Name</th>
<th>Elevation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Carolina</td>
<td>Sassafras Mountain</td>
<td>3,560</td>
<td>29</td>
</tr>
<tr>
<td>South Dakota</td>
<td>Harney Peak</td>
<td>7,242</td>
<td>15</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Clingmans Dome</td>
<td>6,643</td>
<td>17</td>
</tr>
<tr>
<td>Texas</td>
<td>Guadalupe Peak</td>
<td>8,749</td>
<td>14</td>
</tr>
<tr>
<td>Utah</td>
<td>Kings Peak</td>
<td>13,528</td>
<td>07</td>
</tr>
<tr>
<td>Vermont</td>
<td>Mount Mansfield</td>
<td>4,393</td>
<td>26</td>
</tr>
<tr>
<td>Virginia</td>
<td>Mount Rogers</td>
<td>5,729</td>
<td>19</td>
</tr>
<tr>
<td>Washington</td>
<td>Mount Rainier</td>
<td>14,410</td>
<td>04</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Spruce Knob</td>
<td>4,863</td>
<td>24</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Timms Hill</td>
<td>1,951</td>
<td>39</td>
</tr>
<tr>
<td>Wyoming</td>
<td>Gannett Peak</td>
<td>13,804</td>
<td>05</td>
</tr>
</tbody>
</table>

**What are poles used for in skiing?**

This partial list is not in any particular order:

- For pushing
- For turning
- For timing
- For rhythm
- For third point of contact
- For pointing
- For exercises
- For testing the snow’s surface (texture and firmness)
- For pulling
- For hitting
- For tripping
- For blocking
- For holding
- For throwing
- For supporting
- For balancing
- For taking skis off
- For scraping snow from under the boot
- For getting up
- For making a ladder using the skis as well in order to get out of a deep hole
- For poking
- For measuring
- For stopping
- For stabilizing
- For re-centering
- For swinging
- For hopping
• For lifting
• For dropping
• For crossing
• For worrying about
• For loosing
• For touching
• For drawing
• For showing
• For flexing
• For fun
• For planting
• For squeezing
• For racing
• For dragging
• For slowing down
• For speeding up
• For carrying skis
• For rotating

Is there a difference between a “pole touch” and a “pole plant?” If so, what is it?
See article on page 7.

Announcements

• The new Event Schedule that includes about 500 events is now available online at www.psia-e.org. Please note some events are pending confirmation from the resort locations (a process slowed by the storm and flooding challenges in many cases). Now is a good time to make plans to attend events and/or certification exams. This will give you motivation to train and schedule your other events around those that matter the most.

Funny Turn

YOU KNOW YOU'RE A SKI OR BOARD INSTRUCTOR WHEN...

• all you say all day is "pizza... frenchfries!"
• you feel funny if you aren't wearing your ski or board boots.
• you'd trade your nice warm summers to go work at a mountain in some other part of the world where it's actually cold.
• you actually lose or spend more money than you make.
• you become just another one of the kids.
• you can ski/run in skis just as well backwards as you can forwards.
• when the first thing you do when you wake up is put on ski socks without thinking about it.
Mike Hicks, thank you for amusing us with these statements. We can all relate to them. Mike was a ski instructor at Whitetail Resort, PA now for 20 years and going strong. He is an awesome skier and a wonderful person. Mike is a PSIA Alpine, Level III certified trainer for his ski school.

Marketplace

- If you are working with kids, or you simply need to get in and out of your ski boots fast, and you want them to be comfortable and of top quality, you might be interested in my NEW rear-entry Nordica Gransport Executive Ski Boots in size 28.5 with 95 flex index. Asking $249. Write me at kosmalaw@bellsouth.net or call at 828-719-6884.

Dedication

Our hearts go out to all the families and friends of those affected by the August 28, 2011 hurricane Irene that went up the Eastern US starting in North Carolina. Devastations were catastrophic. Feel free to help through numerous flood relief organizations.

Indeed, this house floated down the river, but the bridge stopped it. Welcome to Windham, NY, which had 5 feet of water rushing through its Main St. on Aug. 28, 2011.

Main Street in Windham, NY.

Nags Head, NC: Where did our cottage go?

This was actually a floating house in NY.
This is CVS Pharmacy in Margaretville, NY, or should we say – was?

Floating caskets, Rochester, VT.

Lone cottage off CT shoreline.

Picture Citations:

- http://www.sever66.ru/photo/734.jpg