



Photo by Susie Audibert
Robert Speiden was born and raised on the family farm in Orange County. A graduate of Virginia Tech, he currently lives with his wife Jennifer in Blacksburg.

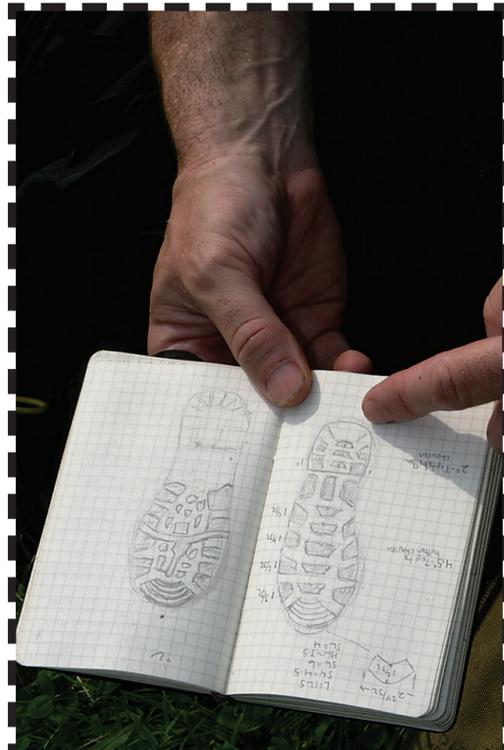


Photo by Susie Audibert
 All search and rescue people should keep a log. Mark Gleason is full of notes and highly detailed sketches of everything from hiking boot lug patterns to animal skulls.



Photo by Susie Audibert
 A fairly obvious track in six-inch tall clover and lawn grass. Note how the blades are bent over, indicating direction of travel.



TRACKING: a complex application of simplicities

Photo by Susie Audibert
 It's all about the details. Robert Speiden gets up close and personal with a set of human tracks in his dad's overgrown lawn.

Robert of his dad's yard where he found the cell phone. "The harder ground covers might be wet pine needles." He pauses and then enigmatically adds, "Really, the hardest ground cover to find the next track on is wherever the next one is that you can't find."

The best surfaces are called "track traps," mud, sand, snow. What about solid rock, concrete? Is it possible to track someone across that? Yes, it's possible, jokes Robert; it's even easy "if there's a quarter inch of snow on the concrete sidewalk."

A rather famous tracker, named Tom Brown, from the New Jersey pine barrens, helped bring tracking and wilderness survival to the public's eye some 20-plus years ago. Robert has gone to some of his seminars, and he buys some of what Brown has to say, but not all of it.

"I've seen a lot of people talk themselves into seeing things in a track that

some people say they can see. And I don't see it," he says with a note of finality. "I don't see how you can tell male from female by looking at that." He points to a depression in the clover. He admits there's an obvious difference in dimension, "but that's not going to lead me to say that's a female, just by the size of it." And reading other things into a track such as "if they have cancer or if their bladder is half full, I don't buy it."

Time of day plays a role. Early morning, late evening, when the sun is shining across the tracks is better than when the sun is overhead. Overcast days are tougher than bright ones where you can see tracks easier by the shadows they cast. And tracking at night has both advantages and disadvantages.

In the dark, searchers use handheld flashlights, not headlamps. "We bring it (the flashlight) down low and try to maximize the difference between

the light hitting the ground and our eyes hitting the ground," observes Robert. If the light source is at the same angle as our eyes, "we wouldn't be able to see the shadows....At night you can control that." Besides, he adds, "It's quieter; there are less people out here, less distractions."

Trackers, in fact any searcher worth his salt, will keep extensive logs recording everything from the victim's state of mind to what the weather was to a detailed tread pattern of the sole of his boot. Logs serve partly as training tools, and partly as insurance. If he ever has to testify in court, he needs to be able to document every move he made.

Robert and several of his colleagues have assisted in criminal investigations. In fact, Robert teaches his signcutting class to employees of the department of corrections.

When Robert Speiden isn't out on an

active search or teaching a class, he's working for a Blacksburg based environmental consulting company. For fun, he'll go out and track animals. His wife Jennifer has caught the bug too. "She can tell if her mail has been delivered that day or not, just by looking at the ground in front of the mail box."

Those of us not quite as observant can still experience the thrill of following animal tracks the morning after a fresh snowfall. They tell stories, like the perfectly straight in-line fox paw prints following the unsuspecting galumphing rabbit, until the rabbit, sensing danger, panics and tries to bound away. Too late. The story ends with tufts of fur scattered on the wind and a blood stain on the freshly fallen snow.

To Robert Speiden it is infinitely more detailed than that. The account of the fox and hare is a story; his is a novel. It's a thing of beauty, an intricate puzzle, a complex application of simplicities.

Robert Speiden hands me his cell phone and asks me to go out in his dad's dew-covered lawn in Somerset and drop it in the grass. He then announces confidently that he's going to find the cell phone and he's not going to do it the easy way, which would be to borrow mine and call his own number. No, Robert's going to track me to it.

He turns his back, closes his eyes tight shut, sticks his fingers in his ears so he can't hear or see the direction I take. I walk out into the thick grass, turn left unexpectedly, circle behind a weather station in the yard, and drop the phone. I then walk back to him and tap him on the shoulder.

Robert turns around, opens his eyes, and quietly launches an incredible process of awareness, of being super observant, of slowing down, and intensely focusing on the most minute of minutiae. "It's not NASCAR racing," he says patiently. "It's very slow, very meticulous, very

detail-oriented, very complex." He smiles faintly, almost zen-like, and quotes a former game warden turned tracker named Mike Hull. "Tracking is a complex application of simplicities."

It is also a challenge that Robert obviously adores. Asked what it is about reading this story of clues; the solving of this puzzle, he says, "Just seeing that blade of grass that somebody stepped on is more beautiful to me than some beach setting. Being able to identify and follow a person; it just piques my interest. I can't tell you why; it just does."

He stands stock still and looks out into the yard. "Everywhere somebody walks they leave sign," he comments. "Sign is a disturbance to the ground, to the baseline. Baseline, to us, is an undisturbed environment."

But this yard is anything but undisturbed. Even to the untrained eye, a lot has been going on here. It's been a week and a half since this lawn has been mowed, yet the mower tracks are still faintly visible. Dogs have gleefully galloped

Foundations for Awareness, Signcutting and Tracking



Robert Speiden

Robert Speiden's self-published 268-page book with 115 photos and illustrations is used by the Department of Emergency Services to teach a class in signcutting. Copies can be obtained through Speiden's web site: <http://www.trackingschool.com>

INSIDER
 BY PHIL AUDIBERT
 AUGUST 27, 2009

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across it. His stepmother, Joanne has gone out to check the weather station. His dad has driven the Kawasaki Mule over it. Other people have tromped through it. How in the world is he going to find, not just human tracks, but my tracks... the ones I made most recently?

Clutching a bundle of pencil-sized orange colored sticks, he slowly skirts my route, placing a stick in each footfall. "Right off the bat I'm seeing a couple of things, some darker areas here that might have been you knocking the dew off. I'm not sure." I don't tell him he's spot on to me.

He points to other tracks in the lawn, and



Photo by Susie Audibert
Tracking can be so detailed, even a bruise to a single clover leaf is treated as a clue.

announces they were made last night. How does he know this? The dew drops are still spherical, not shattered, he explains. And because it did not rain last night, he knows those tracks were made prior to this morning. He follows me to the point where I turn. He stops, hesitates, comes back to the starting point again, shifting his focus to my return route.

He drops to his hands and knees and closely investigates the depression that my foot made in the clover. "What got my attention was that track right there. That's pretty clear. That's what we call braille trail." He points to bent over grass blades that indicate a direction of travel. He carefully observes a bruised clover leaf in the middle of the track. "The dark green in there, that is where part of your shoe compressed the clover against a rock or the ground and tore the tissue." He asks to see the soles of my hiking boots, and

actually matches the bruises on the clover leaf to my lug pattern. Man, I sure hope I don't do something bad and they put this guy on my trail; I'd be a goner, sure enough.

He points out a crease in the leaf, then a tear. He compares these injuries to a blade of grass that was mown a week and a half ago. The end of the blade is scarred white, just like "our own skin turns white when cut." But here, the clover leaf is bruised dark green, not white. It's recent. He stomps on a dandelion plant and then looks at what a similar foot print under similar conditions would look like. That's called indexing.

He responds to a question about aging by asking



Photo by Susie Audibert
Speiden can even match the micro pattern between the boot sole lugs to the bruising on the clover leaf.

me to abandon traditional ways of marking time. "Tracks don't age just by an hour passing or a minute passing. Aging is more a factor or a result of different events occurring; the sun coming up, the dew, somebody else walking, the lawn being mowed."

You would be surprised how long clues remain. "Sign is persevering; it will last over time. It doesn't just go away because it rained or something. A clear track in nice soft sand might be erased partially or completely by rain, but it's hard to get rid of everything. That bruising, that damage to that leaf that we saw, that will be around for weeks."

So, this exercise in his dad's yard is relatively easy for him. He backtracks me, muttering "left foot, right, left, right," pitching orange sticks into the depressions. "I'm pretty darn sure on this," he says confidently. He measures the distance of my stride to predict where

the next track will lie, and.... "Oh there," he exclaims and picks up the cell phone. "That's my reward," he grins.

It must be his lucky day for he has also found a four leaf clover during this demo. But his success finding the cell phone has nothing to do with luck and everything to do with years of study, practice and training. It's all about being aware. As the famed naturalist Henry David Thoreau said, "The question is not what you look at but how you look and whether you see."

The radio crackles. A search team that has been out all night has found the victim of a horseback riding accident down by the Rapidan River. The victim is dead.

Well, not really. Yesterday afternoon, Robert rode a horse on his dad's farm up by Scuffletown way, simulating a situation where a rider goes out, but the horse comes back riderless. Instead of a body, Robert left a pair of old hiking boots.

The occasion is a weekend training school for SARTI, which stands for Search and Rescue Training Institute. Robert is a charter member and current training officer for this group of volunteers. "Tracking is a perishable skill," says Robert sagely. "Either use it or lose it." He has set up several practice problems in signcutting and tracking.

Twenty-four people from as far away as Georgia and Tennessee are spending this August weekend on their hands and knees peering intently at bruised clover leaves. Eight of the advanced students spent the whole night tracking the horse to the victim's body. Their reward: a pair of old hiking boots.

Okay, Search and Rescue (SAR) people are a little bit odd. They tend to talk in obscure acronyms, dress in faded hiking gear, and carry survival packs wherever they go. But if you or someone you know and/or love ever goes missing, you'll be glad that there are people who actually love doing this type of thing.

Robert Speiden, who was born and raised on this Orange County farm, caught the tracking bug when he took Greg Fuller's field team signcutting course while attending Virginia Tech and volunteering with the Southwest Virginia Mountain Rescue Group. "I took that class in 1995 and got hooked on it. "This is really cool," he remembers saying to himself. Since then, he has read everything he can get his hands on about the topic. And he has taken classes

and courses with experts all over the country, including a former FBI agent and border patrol officer.

Currently, as a part-time employee of the Department of Emergency Management, he teaches that same class that he first took 14 years ago. "It was very apparent to me that that class needed a text book," he says. So, he decided to write one, using Fuller's original outline "as a springboard to flesh out the material of the course, as much as it could be written down." The self-published book is entitled, *Foundations for Awareness, Signcutting and Tracking*. But, he cautions, "Tracking is one of those skills, like many other skills, that you can't learn from a book. You can't see this in a book." He points to my foot impressions in the lawn.



Contributed photo
In an effort to free a trapped horse, Robert opened his arm up from elbow to wrist with an axe. Here he awaits transportation off of Copper Mountain after a first responder has stabilized him.



Photo by Susie Audibert
Dead men walking. A haggard tracking team comes back to base after following horse hoofprints all night long to an accident "victim" during a training exercise in Orange County. Note the "dead" man's boots around the tracker's neck. That's his reward for spending the whole night on his hands and knees.

Robert is now called to searches all over the country. In fact during this training weekend in Orange County, a woman went missing in Accomack. Robert and some of his students responded and were directly responsible for finding the woman alive and well. This is important to him, because back in 1996, he was a seriously injured victim himself on top of Copper Mountain in Colorado. During a family 500-mile-long pack trip, a snow bridge collapsed, trapping a horse. In an effort to free the animal, Robert gashed himself on an axe. He rolls his arm palm up to reveal an ugly scar that stretches from the crook of his elbow to his wrist. He could have bled to death, but instead was rescued within two hours. The incident, for him, rammed home the

importance of a quick response to search and rescue emergencies by well trained volunteers.

All told, Robert Speiden has answered more than 100 calls to look for missing people, and he has made or facilitated several finds. However, he is quick to point out that all searches are a team, not an individual effort. He also says, "In search and rescue, tracking is just one tool in the tool box. They have canine resources; they have a helicopter; they have visual trackers; they have what we call ground pounders to grid search. I'm a strong advocate of canine resources and visual tracking resources working together."

The problem is, the people who run the searches tend to call the trackers last, when the scene has been totally trashed. "That's part of the risk," shrugs Robert. Usually family members of the missing person have quite understandably launched their own search effort first. Failing that, they call for help. The response can sometimes be overwhelming.

"Basic search theory, if you don't have a direction of travel, it's an expanding circle. So if we can get a direction of travel, we can narrow it down," continues Robert. That's where signcutters can play a valuable role, if, and that's a big 'if,' they can identify the victim's track that he/she made on this particular instance and separate it out from all the other tracks of friends, family members, strangers, and ground pounders.

On real live searches, Robert says he's been able to do that only about 10 percent of the time, with a reasonable degree

of certainty. "They're all difficult, because more often than not, I am unable to pick up the sign of the missing person and follow it." But, his serendipitous awareness training and general knowledge of search and rescue strategy and procedure has put him in the right place at the right time on numerous occasions.

Here's just one of many examples: he was teamed up with a dog handler searching for an elderly Pennsylvania man who had not returned from his daily walk. They started out on the trail the man took in the same direction every day. But because the trail was so contaminated with other people's tracks, Robert stepped off of it, to see if he could detect where the man left the trail.

And he almost stumbled over him. The 78-year-old had been out for 36 hours. He was unresponsive to everything except pain, and "We were still within sight of the command post 150 feet away. We were still in sight of his house!" exclaims Robert. The victim had been passed by dozens of searchers, and if Robert hadn't thought to go outside the trail (envelope?), the old man might have died.

"A lot of teaching tracking is getting into what your senses are, what you're perceiving; what you're observing as opposed to what you think might happen to someone who walks through here," he comments. On the other side of the spectrum, searchers try to predict where victims will go based on where similar victims have historically gone in the past. Bob Koester has written a book called *Lost Person Behavior: A Search and Rescue Guide* that uses data from 50,000 searches worldwide to make some predictions. For example, in general, suicidal people will go somewhere pretty to do the deed. That, or they'll hide.

Robert says these tools are useful, but he also jokes, "73 percent of all statistics are made up on the spot."

He turns serious. "In tracking we're not so concerned about where they might go, we want to find out where they did go...The ground is going to prove out where they went...This stuff doesn't lie; this is pure evidence." Searching is essentially finding clues that lead from the Point Last Seen (PLS) to the victim. A six foot tall man will leave 2,100 of these clues in a mile. That's how many steps he'll take. Now, try to find every single one of them. No wonder it takes hours.

"A green grass lawn like this that's six, eight inches tall, I'd put this towards the easier end. Not the easy end, not like the beach or fresh snowfall," observes



Photo by Susie Audibert
Experienced signcutter Mark Gleason demonstrates a tracking stick which is used to measure tracks and estimate stride length.