

Soil Science and Martial Arts

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Anybody who knows me well knows that I have three great passions in my life, my family, soil science, and Shotokan Karate.

I have long believed that all things in life are interconnected. I met my lovely wife, Cindy, on the job (she was a consultant on a project on which I was the inspector) right after I started back to school to study soil science. We married and formed our consulting company the next year. Her son Chris and daughter Kelly were our best man and maid of honor at the wedding, and we've been a tight family ever since. One day Cindy talked me into joining her and Chris at their karate class. To make a long story short, I stayed in karate, and they eventually drifted away from it. Later that year I set the goal to be an ARCPACS-certified professional soil scientist and a *shodan* (first degree black belt) by my 40th birthday (1998). I achieved both within a week of each other and with 6 months to spare.

Shotokan karate is a Japanese style of un-armed defense. The word *karate* is actually two words, *kara* meaning empty and *te* meaning hand. It traces its roots back to Okinawa in the feudal period when peasants were not allowed to own weapons. It is believed to have been developed by the peasant class to enable an unarmed *karateka* (practitioner of karate) to protect himself or herself from an armed samurai. There are a number of ethical considerations in teaching or learning a potentially deadly art. As such, there is a strong code of ethics and conduct that is epitomized in the *Dojo Kun*.

*Seek perfection of character.
Be faithful.
Endeavor.
Respect others.
Refrain from violent behavior.*

This is recited by the entire class in unison at the end of each and every training to drive home its importance.

I joke that I study karate so that I can win all of the arguments in the field with regulators, but like most martial artists, I would be the last person to resort to violence. However, the study of karate has greatly influenced my professional life. I have found that karate and soil science have a lot in common. Both require dedication, intelligence, discipline, determina-

tion, constant training and a strong code of ethics. A good dose of humility is also a plus.

Karate is not something that can be learned from a book. Many aspects of soil science require hands-on training as well. There are many shared lessons that I can think of (Does anybody else see another series or articles forming in my twisted brain?), but the one that I want to focus on is the *Sempei-Kohai* relationship. This is not solely a martial arts trait, as it permeates the Japanese culture, but it is strictly practiced in karate.

The word *Sempei* (pronounced *sem-pi*) can be translated as superior and *Kohai* (pronounced *ko-hi*) as subordinate, but the essence of the relationship is lost in such a loose translation. In karate and in Japanese society, there is an obligation for the *Sempei* (superior) to teach the *Kohai* (subordinate), but also to look out for the *Kohai* and mentor him or her in every way possible. Failure in any way reflects badly on both. There is a saying that it is the *Sempei's* responsibility to pull the *Kohai* up from below, while it is the *Kohai's* job to push the *Sempei* up ahead of him. This means that at any given time on the dojo floor (the training room) the *Kohai* will be trying his hardest while the *Sempei* corrects him and challenges him. It is a point of etiquette that it is fine for a *Kohai* to hit a *Sempei*, but not the reverse, as the *Sempei* is supposed to be

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Fig. 1. The author (on left), a Nidan (second degree black belt) with Bob Hoffman, Instructor, a Rokkyudan (sixth degree black belt).

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skilled enough to avoid being hit and to control his attacks to avoid making contact. As the Kohai improves, so then must the Sempei, as it becomes progressively more difficult to defend against his attacks and avoid being hit. This improves both of their skills at the same time. In good karate training, every person on the dojo floor is training every other person, especially those of a lower rank. In this way, the art is perpetuated, quality of practice is maintained, and skill levels are improved. This also encourages everyone to persevere, to try their hardest, and to succeed while building a sense of community. There is no stronger camaraderie than that shared after a mutual conflict.

In some people's minds there is a potential problem with this practice; you are essentially training your competitors. You are intentionally improving the skills of people that you will compete with and will definitely face in a fight. Therefore, to engage in this practice requires a few adaptations. First you must suspend your ego—easier for some than others. Then you must realize that the perpetuation of your art (or science) is important. Next you must dedicate some time. Lastly, you naturally learn to take pride in the success of those that you help. I have proudly watched several karateka that I had helped to train pass me in the ranks, including one who is now in training to be an instructor.

I came to soil science in my late 20's and martial arts in my 30's, a little later in life than some. Still, in 20-some years of soil science I have watched the graying of my peers. I have watched and waited to see new blood enter the field, and been disappointed by the turnout. Many fine young people have entered the field, but not as many as we need. The math is sobering. Look around. We don't have enough young people entering soil science to replace those that we are losing to attrition by retirement. We are in a field that is of vital importance globally, yet few young people choose to enter. Soil science departments at universities are shrinking or being merged into other departments. Elder colleagues are retiring in droves and taking tremendous amounts of knowledge and



Fig. 2. A collection of people ranging from first degree to sixth degree black belt. The person on the right is Mark Naber, a Yondan (fourth degree black belt) and a local sanitarian with the County Health Dep., who inspects some of the author's work.

experience with them. Meanwhile, the environmental and agronomy fields are desperate for more soil scientists.

As professional soil scientists, we have an obligation to combat this thinning of our ranks. We need to adopt the Sempei-Kohai model. We need to actively encourage new young people to enter the field, and we need to mentor each and every one of them. We need to realize that in so doing we are not training our competitors; we are training those who will take our places when we retire. We are passing along expertise and preserving a wealth of knowledge and skills. We are furthering our profession and improving its service to society. We are building the future. We also meet a lot of talented and interesting people who will challenge us to become better as well.

Author's note

As I learned in karate, I try to lead and teach by example. I am currently mentoring two young aspiring soil scientists and encouraging others. Some will ultimately be in direct competition to my business, and others will not. In any case, I am proud of all of their achievements.