

When I was first learning the farrier trade, I was fortunate enough to be taken under the wing of an old shoer right before time caught up with his wrecked body enough to put him out of business. He had been taught years before by another old shoer, and I doubt very seriously that either of them had ever read a paragraph of a farrier text and definitely not a veterinary paper. His methods were very simple. Keep the horses barefoot and well trimmed during the off season to “drive up the sole”, keep the heels low and the shoe way back under the horse. “Cheat” the toes back if you need to, leave the frog alone and most of all, leave the sole alone and let it tell you where the foot wants to be. In fact, I am pretty sure I never really used a hoof knife until I was on my own. His dietary and conformational skills were apparently limited to a strong distaste for fat on a horse. “You’d better back off on that horse’s feed or he won’t be able to carry you anywhere.” That was pretty much it, as far as the horses and their hooves go; the rest was all metal work.

As I later studied deeper into corrective shoeing and worked hard to educate myself, I came to think him as a “cowboy shoer”; incompetent even. I failed to notice the fact that the people in the fancy barns who used the expensive “educated” corrective farriers had horses and hooves that were wrecked with problems. I also conveniently forgot for a while that very few of the horses in my teacher’s care ever had a problem at all. When they did it was usually from an injury and not sore feet. Which came first, the chicken or the egg? My answer at that time would have been wrong. Since then, I have systematically had to unlearn many of the things I learned to do to the horse that once made me feel superior to my teacher and at the same time developed a deep respect for the pure, raw effectiveness of his simple, “uneducated” ways.

These days I have traded in my metal shoes for state of the art hoof boots, and I have learned the awesome power in allowing the “off season barefoot healing period” to extend throughout the horse’s life. I have gone full circle and become one of the loudest voices in the world to “trust the sole”. I’m not alone; thankfully the whole farrier world is shifting in that direction. Is this the “fad” for the 2000’s? No, it is an important, basic fundamental of hoof care that the scientific farrier community just forgot for a while.

Let’s take it all a step further. In my book (Making Natural Hoof Care Work For You) I taught the typical hoof balancing methods practiced by most farriers with a footnote added that said I felt that this “cosmetic” balancing was wrong, but wasn’t quite ready to talk about it. After four years of constant experimentation since writing that, I am ready now. I now am convinced that the “little bit of sole” I would have had you to remove to achieve balance, is a direct violation of everything the horse is trying to do to protect himself and optimize performance.

The problem with traditional thoughts on hoof balance is that we are programmed to set horses up to be in balance while standing square on concrete. Few horses are asked to perform while standing square on concrete and I have never seen a horse limp or get injured while standing square on concrete either. If left to its own devices on, a horse will not stand square at all, but cock to one side and rest one foot at a time, just as you would. So what is the significance of balancing horses this way? I say none.

Like with most things, I came to this backwards. I started deeply studying the way horses move and wondering how I could make things better for each horse in my care. One of the most dramatic “for instances” is a horse that is worked extensively at the trot on a hard track or road. When a horse trots the hooves fly inward and land under his center of gravity. The footprints look like a tightrope walker. This is normal, natural, and efficient. As I observed this movement, I also noticed that the outside heel on a “cosmetically balanced” hoof lands first and that after this impact the hoof slams inward as the other heel is driven to the ground, snapping the fetlock and pastern joints. Knowing how destructive this could be, I decided I should experiment with lowering the outside of the hoof so that it could land in a more balanced way while the horse was performing the hardest work asked of it. Very quickly, in case after case, I found that the live sole plane was already begging for it. I didn’t have to invade the sole or leave anything higher than the sole to achieve this “balance for work”. In fact, these were the very hooves I would have previously had to invade the sole a bit to achieve cosmetic balance. I noticed this in case after case and it slowly became obvious that the sole could usually be trusted for optimum heel balance and toe balance as well.

The same thing holds true in problem horses. The “pigeon-toed” horse is a prime example. When a horse toes in, you will usually find that the joints of the pastern and/or fetlock are set in an inward angulation. This is readily visible when the hoof is picked up and the angle of the frog turns in relative to the lower leg. If you try to twist the hoof with your hand so that the frog is in line with the leg, you will often find that it is impossible or painful to align the two. Traditionally, the inside toe has been lowered to try to straighten the leg. Doing this puts enormous strain on the joints and never seems to permanently change things for the horse anyway. **Cutting a straight hoof onto a crooked leg is just as damaging to the joints and tendons as cutting a crooked hoof onto a straight leg!** We have to accept what is there to work with.

By allowing a bit of cosmetic imbalance to remain in the hoof, we optimize the way the horse can move with what he has to work with. A pigeon-toed horse will almost always grow severe flare in the walls on the inside toe. If you have read my book you know that growing out wall flare is one of the top priorities

of my trimming. I have many customers who think I have fixed their pigeon-toed horses, when in fact all I have done is grow out the flare. The 1/8 inch of cosmetic imbalance the horse needs is still there and I haven't made any attempt to correct it. It's just imperceptible to the lay eye.

Please understand that I am talking specifically about adult horses here. In a foal, I will go to great lengths to combat any imbalance. After the joints are set and the bones finish growing, though, it is far better to allow the horse to forge the hoof he wants to. We aren't smart enough or subtle enough to figure it out for him, but the sole will tell it to you every time.

This is not to say that I am not correcting imbalances. In fact I have become quite confident that treating imbalances of the hooves and limbs this way gives superior ability to correct those imbalances which can be corrected and maximum support to those that cannot (AND THE WISDOM TO KNOW THE DIFFERENCE) . Any experienced farrier can name countless imbalances he/she has worked out and some that tend to hang around in spite of every effort. I was the same way when I was still shoeing and still am very much in the same boat today (but not as often). The problem with trying to **force** a limb to straighten is that we overstress the joints, tendons ligaments and muscles and cause damage or soreness. The horse then moves in a manner that protects the injuries and the imbalance is **perpetuated or worsened**. By trusting the live sole for balance we work with the horses' self healing abilities, rather than fighting against them. The result is amazing ability to straighten long term balance issues no matter where they are in the horse's body or hooves.

How could it possibly be that simple? Realize that the horse is a wild animal that we have brought into domestication. He is highly adaptable and the only reason we have to care for the hooves at all is that the domestic horse doesn't get the twenty miles a day of movement over rocky, varied terrain he was meant to. The hoof wall and the sole protect **each other**. The hoof wall is the tough, protective outer shell and the primary "digging out" tool of the hoof. Everyone agrees that it protects the sole, but few people realize that in nature, the sole protects the hoof wall in return. In feral horses, the wall rarely grows past the sole, yet in spite of the extreme conditions, doesn't wear too short either. I have seen the same thing in the naturally trimmed horses in my care. I have professional trail horses working hard in rocky terrain every day, and even carriage horses working barefoot on the street. In my experience with literally thousands of barefoot horses I have never seen a horse fail to put out enough growth to do what the owner wanted it to do. Not even once.

The simple reason is that I never let the hooves in my care grow more than 1/4 inch past the sole and don't let them flare. Yes, the hooves are alive and as with every living thing they have their limits. It's just that those limits are way beyond what most people think they are. Most farriers and horse owners not schooled or experienced in natural hoof care would quickly say that they have

seen excessive hoof wear many times. What they have seen, though, are hooves that have overgrown and then broken away in chunks, not excessive wear. This is because the sole and its attachment to the hoof wall protects the hoof wall much the way our fingers protect our fingernails. I work very hard with my hands every day and have never once broken a nail. My fingernails aren't of better quality than my mom's, who does break nails. I just keep mine trimmed short so that my fingers protect them.

The supercorium (all of the venous, nerve filled living tissue that lies under and **produces** the hoof wall, sole, white line and frog) is alive and receiving information every second of every day of a horse's life. It reads the terrain and needs of the horse and reacts accordingly by putting out the growth it needs in the areas it needs to support optimum movement and also the healing of problems. It **assumes** that given natural wear (or routine natural trimming) the hoof wall will maintain itself at or slightly above the height of the live, calloused sole. If a horse needs a high heel on one foot because a shoulder injury won't allow that leg to move as far forward in the stride or if the horse needs a cosmetic imbalance in one hoof because of a crooked fetlock joint, the supercorium adjusts the growth and it will show up in the sole. In nature, the hoof wall on that hoof would wear to the sole, placing the hoof wall in the optimum position at a given time. In domestic horses, most farriers fight tooth and nail to try to make the hooves match each other cosmetically. Usually it is a losing battle for the farrier, with the movement of the horse getting less balanced, and the lameness increasing more and more as time goes by.

The natural way to deal with this is to respect what the horse is trying to do by trusting the sole for hoof wall height. At the same time, do anything you can to diagnose and heal the real problem. The result is a better life for the horse and the optimum healing power for the problem. I know many "club footed horses" that move with beautiful balance and comfort, because I am working with nature rather than fighting her.

I sat down and started writing my book with only two goals in mind. I wanted to stop barefoot trimmers from carving out the sole in the back of the foot, and I wanted to stop farriers from rasping the sole out from under P3 at the toe. It grew into more on its own, but those were the marks I hoped to leave on the world. Since then, obviously, I have learned to stop trimming it myself, even for balance. Let's talk about the first two some more.

My book has made a difference I know, but there are still barefoot trimmers out there who are coming up with reasons to trim the live sole at the back of the foot. Usually it is to straighten the bars. I have worked with several professional trimmers who just can't shake that feeling that the crooked bars are causing pain. They just can't stop carving into the sole to try to straighten them. I have gone into their areas and looked at their horses. The soles are flat and the horses are tenderfooted. They have no idea how poorly their hooves look or perform, compared to those of barefoot practitioners who respect the sole. When you leave the live sole

alone you will quickly have deeper concavity and lower heels than you ever would have dared to trim. This is one more effort to get this across.

The thickness of the live sole will adjust to perfect uniformity quickly after you stop trimming into it. Solar concavity must be **built**, by densely compacted sole material being built up to natural thickness and following the natural concavity of the structures underneath. Solar concavity cannot be trimmed into the hoof because every time you trim the sole away, you undermine the sensitive tissue above, and it drops lower. The bars can't straighten up and help support the horse until there is vertical room for them to stand up. This vertical height can not be achieved until the sole is no longer being cut. Barefoot practitioners who don't trim into live sole and use the sole as a guide for trimming the bars have sound horses and strong, straight bars and they rarely even have to trim them at all. (If I totally lost you in the last two paragraphs, don't worry about it. You don't want to know.)

And for the farriers; be sure you recognize that the angle of hoof wall growing just below the coronet is what the horse needs to continue all the way to the ground. Look at this carefully, because it is causing a world of hurt for horses. The live sole under the tip of P3 is very uniform in thickness. It is around a half inch thick, and will not get thicker without piling into dead flakes or soft, rotting material. (An exception being false sole. Please read my book for details) The live sole very accurately shows you the p3 position, and thus proper balance. If you find yourself "needing" to rasp into live sole at the toe or allowing the heels to grow past the sole to achieve pastern alignment or desirable toe angle, look at the hoof from the side at ground level. You will see that the wall is flared from the coffin bone (The angle just below the coronet). You will need to leave the live sole alone under P3 and work to grow out the toe flare, or you are ensuring major trouble for the horse down the road.

When you rasp into live sole at the toe you are bringing P3 too close to the ground. It varies slightly from horse to horse, but generally speaking, the apex of the frog should be around 3/4 inch deep into the solar concavity in a #1 sized hoof. Lay a rasp across the hoof walls (after trimming them to 1/16 inch above the sole). If the apex of the frog is not at least 3/4 inch deep, no sole should be touched at the toe for any reason. Back up toe flare so that tightly connected wall can grow in. If you are concerned about pastern alignment or hoof angle, look at the angle of growth at the coronet. I'll bet you will find that you and the horse are actually in agreement. When you grow out the flare, you will both like the results.

I know that the total trust of the live sole plane for toe height, heel height and hoof balance seems oversimplified. If only you knew the hard knocks I have seen to get to this point. Understand that at one time or another I have done each of the things I am protesting in this article. As I have moved past each of them my rehabilitative abilities, the performance, and the comfort of the horses in my care

has dramatically increased. I hope to turn this learning curve into a straight line for you; for the horse's sake. Trusting the sole puts Mother Nature on your side, whether you are trying to fix a major hoof problem or trying to shave off 1/10 of a second. And Mother Nature makes a very tough ally!



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