Groundwork for Driving, Part II

As I discussed last issue, a horse can't learn or listen if he isn't calm, relaxed and accepting of your direction. Introducing any training questions in small steps, and watching to see that the horse understands enough to try what you're asking, will help maintain that accepting state of mind. And appropriate feedback is crucial. As Dr. Thomas Ritter (www.classicaldressage.com) said in Part I, "The rider must under no circumstances miss the first signs of cooperation. As soon as the horse makes an honest effort, he must be rewarded."

But he must also be physically ready.

Picture yourself out hiking in the mountains, or climbing to a viewpoint off a scenic route. You will be working different muscles, pulling on different tendons, than you are accustomed to using. If the hike was longer or more strenuous than you are used to, you will surely feel sore the next day, and chances are you will be in no shape to repeat that performance immediately.

If you plan on carrying a backpack for a longer hike, you know you will need to build up to that distance and weight. You would start with shorter hikes, lighter weights, and flatter terrain; and finally you are carrying the proposed weight for longer times on steeper routes. This would be what's called the "progressive loading" aspect of conditioning, always gradually requiring just a little more effort.

Similarly we would design a training program for the horse that would ask for increasing effort, with each new level maintained until the new level of fitness has resulted. The increased demand can be in intensity, duration or both, but needs to be tailored to the individual horse. Excessive overloading will result in anything from mild muscle strains, to bone fractures or tendon injuries.

You can't do it all at the last minute

In addition to progressively—but carefully—increasing the physical demands, the conditioning regimen must allow for enough time to adequately develop the bones and tendons. The heart, lungs and muscles, systems we are most familiar with, are actually relatively quick to improve. Ray Geor, BVSc, PhD, DACVIM, is Director of Research and Development at Kentucky Equine Research, and President of the Association for Equine Sports Medicine. In an article that appeared in ESSENTIAL HORSE, February 2000, Dr. Geor explains:

> "Practically speaking, the speed of adaptation of bone and other supporting structures can be regarded as the rate-limiting step in the preparation of a horse for competition. For completely untrained horses, the cardiovascular and muscular systems are well adapted to exercise within a 10-12 week period, whereas up to six months might be needed for adaptation of the supporting tissues."

Bones actually change their internal structure, and become more (or less) dense, depending on what they are asked to do. To increase bone density, some stress must be applied. Humans need weight bearing exercise to prevent osteoporosis. Racehorses start out with short periods of cantering and work up to longer, harder gallops. For the driving horse, you might first trot only on good footing, and walk whenever hard ground or pavement is encountered. But you should trot for short periods on that harder ground, gradually increasing the duration, in order to model the bone for the new demands you will place on it.

The ultimate goal of any training program is the development of horse's potential, both mental and athletic. From the Handbook of the American Driving Society comes this definition:

> "The Object of Dressage is the harmonious development of the physique and ability of the horse. Through progressive training the horse becomes calm, supple and flexible as well as confident, attentive and keen in his work."

"Calm, confident, attentive and keen" is an attitude created and maintained by a careful "progressive loading" of mental challenges and appropriate feedback. The mental conditioning is easier to overlook in our preoccupation with physical accomplishments, but I believe it is much the more important. Suppleness and flexibility are developed through the dressage schooling exercises, which create a gradual increase in demand, whether in duration or intensity.

Dressage is just the French word for "training"

First, no matter what we want to do with him, the horse will need to develop balance and what in dressage is called "self-carriage". Any discipline will be better if the horse is balanced. For instance, even if all you want to do is trail ride, you will still want a horse that doesn't stumble on a rocky trail, that can step over a log without falling on you, that can carry both of you down a mountain at a safe and controlled pace. If you want to cut cows, you need a horse that can turn quickly, stop and start in any direction. Even the most simple picnic drive may require the horse to hold back the weight of the carriage, or turn in a short arc. And of course, competition driving repeatedly asks questions like that.

Balance in movement or for sudden changes of direction requires that he carry his weight (and the rider's if there is one) equally on all four feet. Without training and conditioning, the horse carries more weight on his front feet than on the rear, so the center of gravity will need to move back. To accomplish this weight shift, the back must be relaxed and the abdominal muscles strong enough to support the added weight on the hind legs. The arc of the spine, then, is a curve that starts in the jaw, up through the poll and back, and clear down to the hind feet. And of course, we remember that relaxation is a mental state, not a physical one.

"Fix it up and let the horse find its way" —- Ray Hunt

The best way to "teach" balance is to design exercises that develop the muscles to carry that shifted weight. As Ray Hunt explains, the idea is to put the horse in a position to learn for himself. To help a horse develop the abdominals, up and down hill work is helpful. So too is to ask him to move quietly but energetically on a circular path. It is for that reason that so many of the dressage training exercises are on circles.

Work on the circle is the basis of my own training system. Since I work from the ground, the horse can develop his balance and muscles without the weight of the rider. It has the advantage too that I can watch my horse's movements and see the quality of the gaits. This Groundwork Training is particularly suited to driving horses, since the same exercises can be done, with the same aids, when hitched—but it is quite useful whenever you want to train dressage but don't or can't ride.

Although we talk about "bending" the horse on the arc of the circle, I have found that the horse will naturally curve on the track if he is balanced and relaxed, as he repeats the exercises and gains strength in the abdominals. When he is "bent" (i.e. straight along the arc of the circle), the hind foot on the direction of the turn (the "inside") will travel on a shorter track than the one on the outside of the turn and will be supporting proportionately more weight. Both front and rear footprints will be on the same circle. (Since a picture is worth a thousand words, I will here recommend the excellent book, "Driven Dressage with the Single Horse", by talented artist and horsewoman, Sandy Rabinowitz, which is available from the American Driving Society.)

Groundwork Training System®

It is not necessary to ride to do dressage exercises. In fact, if you don't ride well, you will be making it very difficult for the horse to understand what you are trying to teach him. In an effort to work my horse effectively although I wasn't a good enough rider, I learned a technique from Sally Graburn that allowed me to use the same aids I would use while driving, while working from the ground. She called it long-lining, so that's what I call it too. I have seen it referred to as "double longeing" as well.

Classical long-lining is a component of the training for the upper level dressage movements that require a greater degree of collection, such as piaffe. While it is useful to study what the dressage books say about long-lining, you must always remember that they are training at a much higher level. For the beginning levels of training, they use skilled riders (which we might not be). Sally was an accomplished dressage rider, but she used long-lining primarily as a more controlled alternative to longeing. It is safer than longeing, especially for young or fractious horses, but it has the same advantages of saving time and requiring less space to work in.

Sally had excellent hands, so I modified her technique enough to suit the more amateur owner/trainer (me) who didn't have the quick reflexes and responsiveness of the professional trainer. There is a built-in forgiveness factor so that if we are a little late in responding appropriately, the horse is still learning something useful. The rein that goes around behind the horse acts as the supporting outside rein, and it has a powerful effect on proper bending.

You can tell a circle is "work" if the horse gets tense in the back or jaw or tail, or the gait deteriorates either in rhythm or "bend". (If he seems *too* tense, you increase the size of the circle somewhat—it's only supposed to be enough to be a "progressive loading".) As you continue on the circle, simply asking him to maintain an energetic gait, he will relax into stepping under himself, working the abdominals.

All we have to do at that point is ask the horse to maintain a regular rhythm on his circle. "Working" on a circle means the horse is on the size of circle that requires a little effort to stay calm and rhythmic. As each size circle becomes easier, you merely ask for the same regular and rhythmic gait on progressively smaller ones. Or you increase the demand without changing the size of the circle, by changing the required gait, or asking for more energetic movement.

When a horse is tense and/or excited, his head and tail are up and his back is the low point of the arc his spine makes. As he relaxes, he drops his neck and stretches the length of his spine. As he shifts his weight back, he brings his neck up and in, coils his loins; and the hind legs step further underneath the belly. This is the so-called "rounding up", with the pelvis tucked and the back strong and relaxed. Just as sit-ups are prescribed for a bad back to tone your own abdominal muscles, the horse needs strong abdominal muscles to shift his center of gravity off his forehand. ("Collection" means even more weight in the hindquarters, with increased flexion in the hocks to bear the weight.)

Two more exercises that increase balance and suppleness are the change of rein, as through a serpentine, and transitions from one gait to another. Energetic upward transitions (eventually walk to canter) require a pushing-off energy from the hindquarters, and downward transitions will not be smooth if the weight is on the forehand. For a fluid change from one gait to another, or to a longer stride of the same gait (called "extending" or lengthening" depending on degree), the horse needs to be like a coiled spring of energy, expanding and contracting over the ground. The rhythm and cadence of the gait will not change. To accomplish this gracefulness, the exercises on the circle progressively increase the horse's ability to carry himself lightly.

Every turn is an arc of some circle. The smaller the circle, the more the horse will have to sit back on his hindquarters—the ultimate demonstration of which is a pirouette (pivot). In the longlines, the cue I use for a turn is to merely hold the new inside rein and let the horse follow the arc smoothly to the new direction. The horse, preparing for the turn, teaches himself to flow through the turn by shifting his weight.

Dressage competitions are called "tests" for a reason. They are designed to encourage training in progressive stages, so that at the Advanced Level a horse is required to execute smaller circles, more frequent transitions, and more energetic motion than at Training. Fundamental to all levels are calmness, acceptance, relaxation. A correct movement, if it is tense, will never be adequate.

Reins are for connecting

The weighting of the hindquarters is a result of the improved strength, not of some method of driving or pushing the horse. Similarly, the position of the neck is a result of the dynamics; we do not create a "headset". Dr. Deb Bennett, the doyenne of conformation and structural analysis of horses (www.equinestudies.org), likens driving a horse into a fixed hand to "trying to push a toy train from the rear". We do not constrain the front end of the horse in order to "shorten the frame".

The reins must direct and support the energy that you are asking for from the hindquarters, but they do not pull or hold. If you want a turn, you indicate the direction and then support the outside rein to control the size of the arc. An unopposed inside rein would turn the neck alone and make a balanced turn more difficult. All turns should be an arc flowing through the spine from nose to tail.

Ideally all turns would be initiated early enough to allow a smooth arc. However, sometimes the turn comes up suddenly. In a driving horse, it is unfortunate to see a horse in shafts with his nose pulled around into the shafts in too sharp a turn. In that position, he cannot comfortably turn, but must hop and scramble. It is the outside rein that keeps the neck from bending any more than the rest of the spine and channels the awkward turn into a balanced pivot.

The ultimate goal of rein aids is to lighten them so the horse is responsive to almost invisible cues. I make each new rein cue initially as light as I hope to end up with. If the horse doesn't understand, the signal is repeated a little more definitely, but then the next time it will first be light again. In this way, I am giving him a chance to respond to that light touch, and progressively sensitizing him to the aids. In the next issue, we will talk about the aids and how to use them for communication rather than coercion.

But I'm not interested in doing Dressage

I do not believe in working on "dressage" all the time. One of the best exercises for physical and mental development is a good trail ride, or a drive through the countryside. The horse's attitude and general demeanor will be greatly improved by exposure to various sights and sounds, although this too must be a progressive program!!

Some competitions test jumping ability or cow savvy. Dressage tests are just a way to make a competition out of basic training. Even if you never plan to compete in dressage, you will appreciate a horse that is calm and cooperative, balanced and energetic. One that is physically fit and mentally alert. The progressive nature of dressage training lends itself well to an overall conditioning and training program.

And even more importantly, a horse that is physically fit and balanced, that trusts you and will do what you ask—one that can stop and think, rather than wheel and flee—will be a safer horse to be around, whether on the ground, or riding, or driving.