riding the peruvian paso

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introduction

Much has been written about the Peruvian Paso horse breed, about the training, the riding gear and conformation, but little can be found on how to ride them.

In **Riding the Peruvian Paso,** we will explain how we ride our horses and why. We will not describe the Peruvian training methods. We highly recommend the book *The Peruvian Paso and His Classic Equitation* by Verne R. Albright for a better understanding of our Peruvian training methods.

Riding the Peruvian Paso includes information about the general principles of equitation, Peruvian equitation, the balanced seat, body position, riding aids, impulsion and collection, as well as the purpose of collection in our riding style.

We have included some text and illustrations in this article from external sources with the permission of the original authors. We respectfully thank them for their help.

We do not pretend to own the truth and we certainly do not claim that our riding style is the only appropriate way to ride a horse. Our aim is to provide our guests with a better understanding of our Peruvian way of riding.

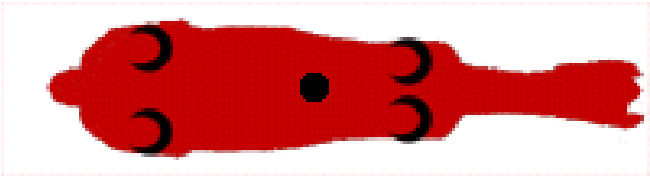
We highly recommend all riders new to the Peruvian Paso read Riding the Peruvian Paso before participating in one of our rides.

the principles of equitation

The art of riding horseback is also called equitation. What exactly is the point of equitation and what is the best way to ride? We will try to give a theoretical explanation.

There are many styles of equitation and they are all based on **balance**. Horseback riding is all about balance.

Depending on the particular horse, his build, and training status, the horse supports approximately 55% of his weight over the forehand and 45% over the hind quarters. There is nothing absolute about the equilibrium of the horse. While standing half-asleep with one hind leg cocked up, the horse can have 75% of its body weight resting over the forehand. In a matter of seconds, he can change to having 70-80% over his quarters as he spins around to flee. He can even take all 100% over the hind legs as he rears. As the horse moves, as he turns and paces through the different gaits, these proportions of weight bearing alter constantly.



Horseback riding is by definition **not natural** to the horse; it is something we humans invented for our own interest and comfort. This statement may not help to promote our equestrian activities or love for horseback riding in the best light, but as we say in Peru, neither should we cover the sun with one finger.

To make this unnatural task easier for the horse, we have to use effective methods to stay in balance with the horse in order to accomplish whatever job the two of us must do. We should ride our horse in the best biomechanical way, and train the horse in the most constructive way to become stronger, refine his balance, improve his suppleness. The result is a better- moving, happier horse that is easier and nicer to ride. These are the principles of equitation.

about peruvian equitation

To have a better understanding of Peruvian equitation, we should first get an idea of the work that is expected from a Peruvian Paso horse, and the whole Peruvian concept of riding and breeding this particular horse.

The Peruvian horse has always been a working horse. His main job was to transport the agricultural overseers across immense sugar or cotton plantations, or from one hacienda to the other, from one remote valley to the other.

The Peruvian breeders were not interested in a speedy or tall horse. They needed a horse that was comfortable to ride, easy to mount and dismount, but at the same time strong and fast enough to cover up to 80 kilometers a day on flat terrain. From the Spanish horses that were brought to the New World in the 16th century, the Peruvians selected the most apt and able, those that had an ambling gait and could adapt to Peru's hard climate, rough terrain and forage. For many centuries Peru was so isolated that breeding was done with no outside bloodstock. The Peruvian horse is essentially the most authentic Spanish horse in the world.

For many centuries, Peruvian breeders managed to establish a breed that is 100% naturally gaited (for more information see **a brief history** on the Perol Chico web site). It is by far the smoothest riding horse in the world, considered by many the mother of all gaited horses. How did Peruvian breeders accomplish this?

The answer can be found in the ir motivation and their way of thinking. A foundation principle of Peruvian breeding philosophy and equitation is simply stated:

A good horse is born, not trained.

This does not mean that we do not train the horse. We train the Peruvian Paso horse to move as he normally would, while refining and optimizing that movement. We want the horse to keep his natural gaits and to maximize them. We want to make them more economic, more coordinated, smoother, easier and more balanced.

Even today, no artificial training methods are used in Peru. A horse that is not naturally well-gaited or does not have a good reach from the hind legs is simply not used for breeding.

Patience is another strong element in Peruvian culture and a very essential requirement for the training of a horse. Most of the Peruvian horses will never see a bit before they reach the age of 4 years!

It is very important, especially for the non-Peruvian breeders abroad, to understand this way of thinking, but also to understand why our National horse was bred in the first place.

There is still a lot of misunderstanding which can be illustrated with the following observations:

The best working speed and gait for the Peruvian Paso horse is not the excessive speed as can be seen at some horse shows or trials. To cover 80 kilometers a day over a flat terrain, at a constant and smooth gait, the horse's ideal working speed should be around 10-12 km/hr, a speed and gait we call in Peru the *paso llano*. It is quite an accomplishment for a horse to keep this speed for many hours, but the Peruvian horse is perfectly designed to do this. Excessive speed of 15 to 18 km/hr has never been the purpose of this master design. Increased speed will burn out the horse in no time, and more importantly, does not allow us to take full advantage of the perfect execution of the natural four-beat lateral gait that makes our horse so smooth, as a tired horse is more difficult to collect (see collection). The Peruvian horse is the Cadillac of all horses; it is not a Porsche designed for excessive speed.

Another example of misunderstanding our breed and equitation:
If we consider the Peruvian horse as a unique master design, as an incredible achievement in the equestrian breeding history, which he absolutely is, we should respect the cultural achievement, intelligence and expertise of the designers. Peru's best horseman and breeding experts have spent almost 500 years of dedication and hard work accomplishing this miracle of selective breeding. The Peruvian saddle is part of this design, and has without doubt its special function and reason. It demonstrates ignorance and misunderstanding to ride our horses with English or Western saddles, think ing that these are superior to the Peruvian saddles. Peruvian saddles are expertly made to work with our horse's special conformation and superbly designed for the purpose of training and riding him.

the seat

The rider needs to understand how to sit correctly on a horse to properly develop the skill. Learning the correct seat is essential for further development of the rider's abilities. There are no limits to improving our riding once we have achieved the proper seat on the horse. It not only makes us more stable, it insures our ability to feel and communicate with the horse. The proper seat enables us to become part of him and his movement. We will no longer be a burden to the animal; instead, we will be an asset, improving the horse's athletic ability, swiftness, speed, and freedom of mo vement.

The training of the Peruvian Paso horse might be different to the training methods used in other

breeds, but the seat does not differ from the classic principles of effective riding on the flat. A process has evolved from the time of Xenophon (430–355 BC) to produce a position with the use of the hands that is effective both in keeping the rider on the horse and in helping the horse work at his best. Xenophon recommended to the Greek riders that they not sit on the horse as they would sit on a chair, but rather as if they were standing with spread legs. He also recommended that they should not ride in the limited space of a riding ring, but train their horses on the open fields.

This classic way of riding on the flat is commonly known as riding with a **deep seat** or **heavy seat**. The deep seat is the manner of riding where the rider's body (buttock) does not leave the saddle. Dressage is a discipline which has been ridden entirely with a heavy seat; this has changed somewhat, however, in the last few decades.

Most equestrians are aware that it takes some time for the horse to develop his body to move about with a rider, but few allow enough time for this to happen. Similarly, it takes time to develop one's own body for riding. The entire lower body, from the hips down, needs to be somewhat "rearranged" in order to achieve a good seat.

To imagine what it means to be a part of the horse, envisage the Centaur from Greek mythology. What it really represents are two species blended together as one. The most important aspect is that they are both standing; the man is not sitting. This is your first clue to understand the deep seat. The rider takes up the same position as when standing, rather then sitting. His hips are in the same position, in relation to the ground, as if he were standing. This is the foundation of a correct seat, which the rider must never abandon.

body position

The best way for a rider to stay on a horse, on the flat, is to sit tall, straight and vertical ("standing") in the saddle, a slight forward curve of the rider's lower back, chest lifted, with an imaginary line running from the head, shoulder, and hip through the heel (see image s to right) . This is called the **straight seat**. A vertical rider is **balanced** because he has no tendency to tip either forward or backwards. He can, by the weight of gravity alone, stay in the deepest part of the saddle without leaning against the cantle at the back, or pushing with his legs. He does not need to counterbalance by leaning back whilst holding his legs out in front, or by sticking out his buttocks to counteract leaning forward. The only muscles that need to work are the poise muscles of the front and back sides. And they work minimally.

The straight seat is not just an outward silhouette of ear-shoulder-hip-heel alignment. Nor is it stiffly correct like some military drill. This is important to know. Many people sit in correct alignment, but in such a stiff and hindering way that the horse finds it very hard and confining to work.

If you sit correctly, you should be able to feel your knees relatively tight against the horse, without doing any squeezing.

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The legs should drop down by their own weight[1] (no pulling up the toes and/or knees), vertically down from the hip, or even slightly slanted inward. They should not be used to assist in staying on the horse. The heels should be in a naturally horizontal position, as if you were standing. This position, if used in a well-designed saddle that is placed correctly on the horse's back, puts the rider's weight just behind the withers at the strongest part of the horse's back, the place where he is able to carry weight with minimum effort. It also aligns the rider's center of gravity with that of the horse, so that the two can work together as one unit. To sit tightly against the withers will stabilize the rider's seat. It is also a decisive factor whether one will stay on the horse or not during unpredictable movements of the horse (spooking, stopping, being out of control, etc). When a horse spooks to the side, or stops abruptly and unexpectedly, it is the correct seat that will keep the rider on the horse; it is not the rider's reaction, which is usually too slow and too late. This deep seat must be practiced to the point that it becomes permanently embedded into the rider's subconscious, in order to serve its full purpose for further advancement.

This seat is **effective** because it does not require muscle tension to stay on the horse, so there is a natural quality to the contact with the horse. The legs can give small aids because the horse has not been desensitized by gripping legs, and the mouth has not been numbed by hanging on to the reins. The balance of the rider does not shift incessantly, so the horse can trust the rider not to tip him off balance, to give small weight aids and otherwise be still and quiet. The rider does not have to move about to give an aid. The body parts are already at the correct place.

When you become responsible for your weight, carrying your body in the "equitation sweet spot," you influence the carriage of the horse and can improve as well as change the way he uses his back. This is of vital importance in helping the horse achieve the optimum gait that he can perform.

The deep seat is also **sensitive** because of its balanced nature. The rider will be able to feel any crookedness in the horse by the seat of his pants because the buttocks and leg are relaxed. The rider will detect loss of balance before the horse has tripped forward and starts to lean on the rider's hands. Since the vertical seat is the most adhesive and shock- absorbing seat, the hands of the rider will be still and able to feel the movement of the jaw and tongue easily. This allows the rider to maintain the lightest contact.

the non-balanced seat

There are several deviations from the correct, balanced seat. Some are voluntary, but most are actually involuntary; the practitioner is largely unaware that he is out of balance. The off-balanced rider brings the horse off balance, but not only that. It also creates pressure in the wrong places.

1 *Peruvian stirrups are made of wood and are relatively heavy. They are placed in such a way that they make a straight line with rider's head, shoulders and hips if they hang down by their own weight. This is exactly the position where the rider's feet should be when having a balanced straight seat.*

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The reason some riders tend to have their heels up is they pull up their knees because they lack balance, and thus lose their stirrups easily. This is best corrected by riding without a saddle or the stirrups, as long as the rider keeps his legs hanging down in the deep seat and does not use them to keep himself on the horse.

A rider who wraps his whole leg around the horse, gripping for balance, will actually lighten his seat in the saddle. The horse feels the difference between you allowing your seat to move with his back and stopping that movement by clamping down with your legs. For a horse to be able to take long steps, his back muscle s must relay the thrust of his
hindquarters through his body to his front legs. The network of muscles can only work with elasticity when allowed to flex as a whole. Various degrees of impulsion are vital to any of the gaited breeds. The rider who impedes the movement of the horse's back muscles works against the horse's efforts to create impulsion in his stride. This impedance also raises his seat in the saddle. The benefits of a balanced, deep, secure seat are immediately lost.

A forward or hunt seat will put the horse's balance on his forelegs, a good seat for staying in balance on a horse that might jump or ride uphill, but not effective for riding a horse on the flat.

A backward seat, usually culminating in the dreaded **chair seat**, puts the rider's weight closer to the weakest part of the horse's back, the loin, than the straight balanced seat does. This encourages the horse's back to sag downward under that weight[2]. This can cause the vertebrae of the spine to impinge on one another, leading to neurological problems. This happens because the position of the rider's legs dictates the position of his pelvis in the saddle. An incorrect pelvis position in the saddle makes the rider's legs stick out in front.

It is the rotated position of the pelvis (i.e. sitting on the tail bone) that makes the legs stick out in front. It is impossible for even the most agile rider to sit on the tail bone and have the legs correctly positioned. The forward pointing legs inevitably push against the stirrups, because the y rock on the back of the seat bones. The push against the stirrups places the seat to the rear of the saddle, pressing down the back of the saddle. This makes the weight- bearing area of the saddle much smaller and focused precisely where the horse's back is most vulnerable.

This rotation of the pelvis also straightens the rider's spine. The pelvis cannot rotate by itself, since it is fused to the spine at a part called the sacrum. So the spine above the sacrum has to be arched for the pelvis to rotate. This straightens the spine, and makes it less shock-absorbing.

The pinching with the knees will cause the same result. The pinching in front will cause the rider to be pushed back against the cantle and up out of the saddle. But with a deep enough saddle, the only one who will ever notice this is the horse. The saddle will keep the rider in

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2 *In Peruvian equitation, a slight backward sit or half-stop movement is part of the training techniques to encourage a ventroflex reaction of the horse (i.e. to bring him slightly off-balance and back again), in order to provoke a better rhythmic execution of the natural four-beat gait. A slight backward -sit is also used to teach the young horse going backwards and for making very short slide stops, keeping the rein on the side of the moving hind leg just a bit shorter. Both techniques can be used to improve the reach of the hind legs during collection, as the horse will throw his hind quarters more under his body. These training techniques should only be used by the experienced* chalan *(Peruvian horse trainer) and is by no means a normal riding seat.*

place with the pinching knees, but the rider will be a burden to his horse, as the back of the saddle is pushed down into the horse's back. Meanwhile, the rider is unstable and also quite stiff.

It is really amazing to see so many gaited-horse or (mistakenly called) western-style riders in this horrible chair seat, usually with their legs forward and completely off balance. They sit like a sack of potatoes, as dead weight, and appear in danger of falling off the rear of their horse. This seat has nothing to do with balanced riding!

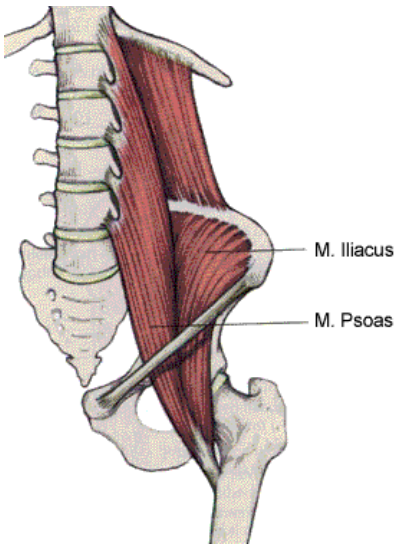
Why do people use this seat? The chair seat is easy. A person with a poor body condition, tight leg muscles, and stiff hips will find it much easier to sit lazy in a chair seat. It makes it easy to put your heels down, a decree that is often pounded into rider's heads without explanation. Many modern fancy saddles are designed to put the rider's legs in front of his hips, feet on the dashboard and practically guarantee a chair seat.

rider's muscles

The muscles the inexperienced rider will feel when he rides for the first time in a straight position are the inner thigh muscles (see image at right). These muscles go from an area just above the knee to the pubic bone. These muscles need to relax and become flaccid, so that they may stretch out and flatten to make room for the horse. To the person who has not yet experienced this it can seem impossible, but it is not.

These muscles are usually extra tense in the green rider, because he clamps onto the barrel of the horse so as not to fall off. And once he has mastered some balance, they clamp in a desperate aim to keep the stirrups on the feet. This defeats its own purpose, since the stirrups will stay easily on the feet of draped legs.

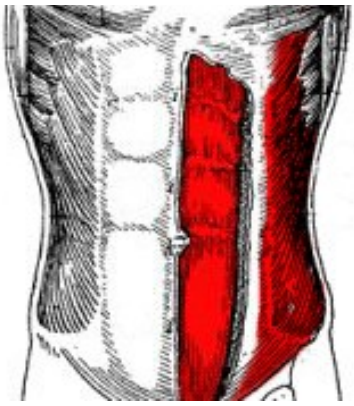
The other sets of muscles that are really hard, but important to get to for the green rider, are the **iliopsoas** (see image at right). And the reason for much of the hardship is that not many are aware that they exist. They are greatly involved in pulling the leg forward with each step as we walk. They go from the lower spine diagonally through the body from back to front, and to the thigh bone, or more accurately the backside of it. They can either pull the thigh forward (as in pulling you knees up) or pull the small of the back forward, creating a sway back.



These muscles are, if anything, too short for riding in most people. To sit up straight (not sway) and to move the thigh bone out to the side and leave the hip-joint free and loose to move with the horse's movement is too much for anyone. This is the repeat offender when it comes to stiffness in the hips. Also, because of its insertion at the back of the thigh, it happily rotates the thigh bone to point the knees out.

In addition to stretching these muscles and learning not to tense them in order to grip the horse and stay on, a few other muscles need attention.

Abdominals. To be able to stay upright, not to sway, not to lean forward or slump, the abdominals need to be strong (see image to right). But this is not any kind of strength. They need to be able to hold, release, hold, release with every step the horse takes, and if you are to last an entire lesson, do so for at least 45 minutes.



Many people walk around with abdominals totally idle. They tend to lean ever so slightly forward, and "hang from the spine " which is fortified by the back muscles.

If as a rider, you cannot support your poise with back and abdominal muscles, you will not be able to hold the spine in its natural S-shaped alignment. You will slump somewhere, creating a stiff, straight section or a kink. A straightening of the spine will lead to less shock absorption, leading to an unruly seat. A kink will at best lead to muscular tension (in order to protect the spine) and thus to stiffness and a bobbing seat. At worst it can lead to injury.

legs

The legs create the forward movement that is needed for all riding - even backing up! The first thing a horse is taught after it has gotten over the shock that someone is sitting on his back, is to move forward from the leg.

With most horses this is not a problem. The horse is well motivated, and the leg aid triggers a natural reflex in two ways. First, forward-thinking horses react to alarm by moving forward. If a horse is cornered between two superiors, and needs to get out, most horses try to break away forward, even if from a logical point of view it might be more reasonable to turn or back off. This is because of their natural instinct to flee. When a horse is squeezed between the rider's legs, he immediately thinks, "Hey, I'd better go." The squeezing causes him to want to get away and he does it forward.

The second natural reflex the leg aid triggers is for the horse to crunch his side and pull the hind leg forward. If you push a finger into the side of a person that is standing up, many times, that person defends himself by crunching, folding over to that side and pulling that leg up. The horse does the same thing.

These natural reflexes to the leg aid are reinforced by reward. In the first two years of a horse's education, application of the leg is always accommodated by the release of the rein. The release is an open door to go through, and it is also a reward for doing the right thing.

To work this way, the leg must be utilized in the correct place. The rider needs to have a plumb seat and a relaxed leg. When the rider has that, he can begin to think about how to do what.

Different Parts of the Leg:

the thigh

The upper part of the leg is foremost a stabilizing part of the seat. In the correct place, it brings security to the seat, and a close contact with the horse's back. It also has a very important role in the sideways moving leg aid. Pressing the right thigh to the left, while shifting the weight over the left seat bone, will instantly move the horse to the left. If you
do as you instructor tells you, and look in the new direction (in this case to the left) you will not only feel the increased weight on the left seat bone, but also how the right thigh automatically presses against the horse. In a conscious setting, this can be a very discrete aid.

the knee

The knee is generally not considered in a positive, active way when it comes to the leg aids. We have pinching knees and stiff knees; these are active and thus bad. But the knee can be used efficiently as an aid. It is actually not the knee per se, but one can focus on the knees, and give the aid. On hot horses, intermediate “pinching with the knees” can be a very good restraining aid, since it does not pull on the horse's mouth, which in a hot horse will lead to the opposite of slowing down – rushing. It is not the knees that do this, it's the inner thigh muscles that pull the knees inward. But you feel it in the knees.

the calf

This is the most used part of the leg, and rightfully so. It is the most efficient part, since it s movements usually do not influence the horse's balance or the rider's contact with his horse. It also touches on a very important spot on the horse's side, the one that says, "Go!"

You hardly have to use any muscles to aid with the lower leg. Sometimes you can use the momentum of the horse's movements to tap the horse on the sides, or you can just set the lower leg in swing to tap the side. Both require very little effort, but there is a downside. This tapping can be hard to avoid, because of imbalances and tensions in the body. But in a controlled administration, it works quite well.

There are two different applications of the lower leg. It’s not correct to say one is good and one is bad – it is not that easy. You can tap and you can squeeze. “Tap” does not mean
“kick.” “Squeeze ” does not mean “like a lemon.” A tap is a quick thud. The leg just touc hes the side and is then bounces back to the neutral. A squeeze is a slower application, where the leg stays on the horse for 1/2 a second to a second. Any more and it becomes clamping, which the horse will choose to ignore.

Why use two different lower leg aids? The first, quicker one, is for lazy to normal horses. They can take an aid that is precise at the moment it is supposed to work. For example, if the aid is supposed to tease the lifted hind leg forward, this aid must be given when the hind leg is in the air. If it is given before that, when the leg is still pushing, it will instead push more, probably causing the horse to lean onto the forehand. The hind leg is only in the air for one-half second, and that is when the aid needs to be applied; your leg goes "tap!"

If you ride a hotter horse, this kind of aid will probably only stress him. It will have a forward effect for several steps. It can also cause a quicker landing of the hoof, which is the opposite of what you want. This is because a hot horse is usually tense or overly ambitious. It will overreact. For this horse, it is much better to first apply the leg, so that it has full contact, and then apply a short squeeze. Sometimes, hot horses need to have the leg applied quite firmly, to desensitize them from their own anticipation that the leg aid will come.

It is a myth in horse riding that the whole leg must be in contact with the horse's side at all times. Except for the above scenario, which usually only lasts for minutes, the leg must be naturally relaxed and draped, not wrapped.

To the left, the same photo repeated twice, but with the depth of the horse's barrel manipulated. For lack of a better picture, this can illustrate how the same draped leg has much more "air" underneath the calf on a slim/shallow barrel, than in a fat/deep barrel.

heels and spurs

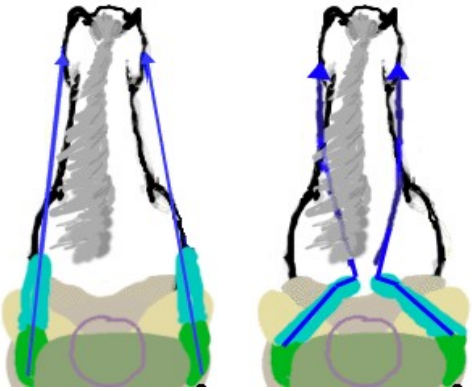
When riding in a good balanced seat, i.e. in a straight position, the heels are in a horizontal position. When the stirrups are placed at the right length, there will be a very light pressure in the stirrups, while not distributing the rider’s weight in the stirrups nor using the stirrups to stay in balance with the horse (except when riding up- or downhill). We do not use our heels or spurs (extension of the heel) as aids during normal riding. This is generally an aid we reserve for use in training, a subject which we do not discuss in this article.

the hands

It is hard to discuss the hands apart from the seat. The hands are an integral part of the seat. Also, a solid seat is critical to the hands: no seat, no hands. If you somehow manage to keep your hands soft and still despite a bobbing, unbalanced seat, they will never work in coordination with the aids of the seat and legs. And hands working on their own make no rider.

The correct hand position is often taught by instructors as "forming a straight line from elbow to bit." Sure it is, but this is only when seen from the side! From above it's a whole different story.

The hands should be held less than one hand’s-breadth apart, and one hand ’s-breadth apart from the rider’s body, at the position of his navel (having in mind the conformation and the head/neck carriage during collection of the horse) to form a straight line as seen from the side. However, seeing it from above, this places the hands to the inside of the straight line from the elbow, which should be relaxed and somewhere close to the hip.



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If one were to hold the arms in a straight line to the bit when seen from above, the hands would be 4-6 hand's-breadths apart, and that is if you are a skinny person with slender hips! That position is **highly undesirable** in the Peruvian riding style. Looking at the images on the previous page, the example on the right is correct for the Peruvian riding style; the example on the left is incorrect.

A wide-hands position does not frame the horse's neck with the reins. It also causes the reins to act directly on the horse's mouth without softening them from the contact with the neck. The horse will let itself be guided to stay inside the frame that the reins make for the neck, and this will keep the neck fairly straight without kinks. Wide hands can easily make a horse counter-position and then re-bend somewhere mid-neck. If the hands are brought close together, they stick out less, and thus stay more in tune with the body's movements.

An important principle of Peruvian training is the work with relatively thick reins, especially when working the young horse in the bosal. The pressure of the counter rein in the neck, combined with the right leg aid, will guide the horse to the desired direction, which minimizes or preferably eliminates the need to pull on the bit.

A well- trained Peruvian Paso horse that is well collected can easily be ridden and guided with both reins in one hand, provided that the rider uses the right aids with the seat and legs. The use of soft hands is essential in our riding style. The relatively thick reins may feel a bit uncomfortable in the beginning, but it is not the reins that enable one to feel the mouth, it is the soft and experienced hands of the rider.

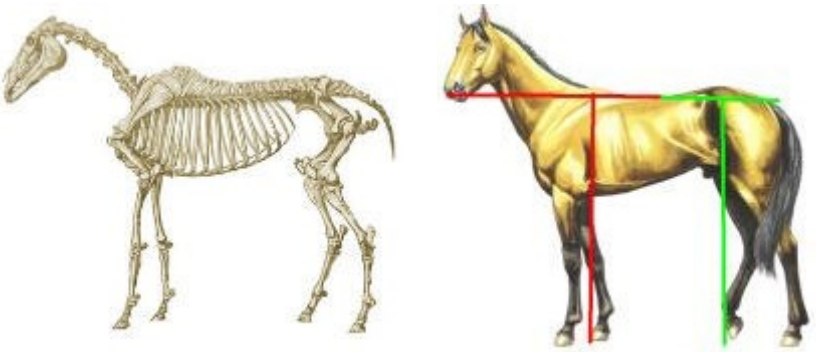
collection

Balance/Energy

Collection is a critical element in Peruvian equitation. Through collection we can obtain a better and more fluent execution of the four-beat lateral gait as a result of increased impulsion from the hind legs and balance of the horse. To understand collection, you need to have some knowledge of the skeletal and body structure of the horse and the mechanics of his movement.

the mechanics of the movement and body structure of the horse

If we imagine the horse's skeleton schematically it would look like this: a system of two pairs of two-arm levers.



The front arm of the front lever is the head and the neck; the rear arm is the horse's back. The supportive center point of the lever is the foreleg in the withers. This point is fixed,
non- moving in the vertical direction, which is given by the structure and placement of the individual parts of the front leg.

The front arm of the rear lever is the loin; the rear arm is the pelvis. The supportive center of the hind lever is in the hipbone. The supportive center is not fixed but is mobile/movable in the vertical/perpendicular direction, which is based on the angling structure of the hind leg. With the reduction of the angles, the supportive point is lowered and the other way around, which is of great importance for the balancing, through-stepping and the collection of the horse.

Both levers are movably connected in the loins. In the observation of the functions of various parts of the body we can see that the front serves for carrying and the hind for movement like a motor that pushes the front forward ahead of itself.

The impulsion of the movement comes out of the point where the hind leg is pushing off the ground and is carried through the mechanics of the levers to the loins and through the back onto the whole front end. It is therefore very important that the loins are well

connected/tied/built into the back so the whole movement is well transferred on the front end.

In faster gaits the impulse is so strong that it actually causes the horse to leave the ground altogether, throwing his entire weight on the forehand. Hence balancing the horse for the rider is of the essence, since the rider alone already makes the front end heavier.

what is collection?

The laws of physics prove that an object is most stable and balanced if its gravity is in its center and when the balance is equally divided on individual supports.

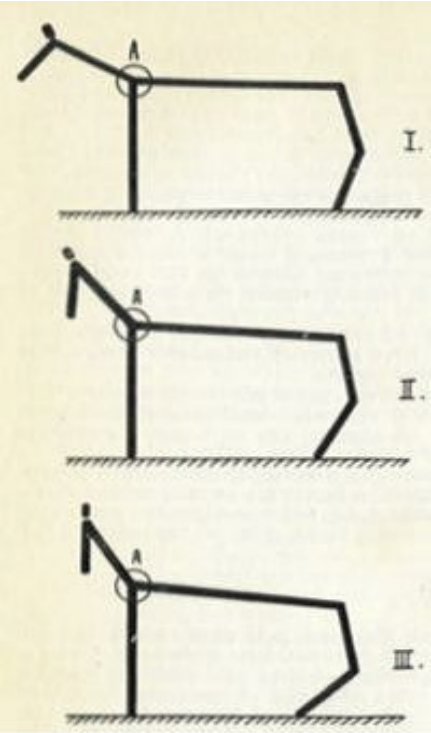
The body of the horse is supported with four legs forming a rectangle. From the torso forward is the extended neck with the head (the front of the fore- lever, teeter-board like). This is not balanced on the other end with much, which of course causes the horse to be weight-forward and overloads the front legs.

The center of gravity is therefore not in the center of the rectangle which the legs are supporting, but is moved further forward, approximately there where the horse's heart is. (see picture above, red line)

When the horse is weighted down by the rider, who sits behind the withers and on the fore part of the back, the center of gravity will move somewhat further back, but the weight will still not be equally distributed (green line above). The front legs will remain over-weighted and suffer from premature overuse. All in all, the stability and sure- footedness of the horse is significantly reduced.

The front legs of the horse have difficulty catching the forward push of the hind legs as the timing of the whole mechanics is off and the front is landing somewhat prematurely. This causes the young horse to lean forward into the bit. His gait tends to quicken, and his speed often accelerates. This also some times results in the horse suddenly stopping and/or refusing to move altogether, as well as unseating the rider in some cases. The horse left in this/his "natural" balance will often begin to lean strongly into the bit (pulling, often called "running on the forehand" and "throwing himself on the chest"). A horse like this becomes un- maneuverable, difficult to turn or stop, and when turning will need a large space. The lower set neck and head causes an uncomfortable feeling to the rider, who then tends to lean back, as well as the premature overuse (abuse) of the animal's forelegs.

By riding (only) the rider is to influence and change the center of gravity further toward the rear, more to the center of the rectangle, and thus bring the horse into the “artificial balance” (collecting). This will aid the horse in gaining more stability. He becomes maneuverable, better able to balance the rider on his back. He is easier to control while he gains solid (fine) contact on the bit and at the same time distributes the weight equally on all four legs, thus preventing the premature overuse (injuries) of the front legs.



Collecting a horse is a highly misunderstood concept, even among the most famous riders in all types of riding. This article will be simplified to the point that anyone will be able to evaluate the riding/training capacity of any horseman, rider or teacher.

Collection and balance are closely tied together. The term collection often has other names, like gathering or putting the horse together. The concept of collecting a horse applies to putting together the balance of the animal under the rider. It also means to collect the necessary energy for the upcoming task, which will give the horse the needed level of impulsion.

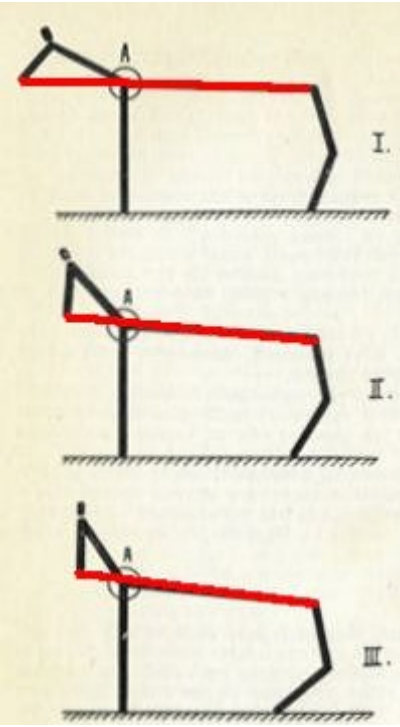
These three schematics of the horse’s skeleton will explain and clarify in the simplest way the concept of collection of a horse in riding. They show the gradual collection of the horse, which means lowering the angle joints of the hind legs, while setting them more under. At the same time, it shows the gradual erection of the neck/head in relevance to the collection, thus providing better balance of the horse.

I. Young horse during the first stage of training, without the hind legs under him; hence his neck is stretched forward. This is called the natural balance.

II. Increased lowering of the hind leg joints and setting the hind legs under. As a result the neck will be more erect (the principal of the two-arm lever supported at the point A) and the head is closer to the vertical. This is called the campagne balance[3]. Every riding horse of any kind of discipline should reach this balance level. Any horse that is referred to as a dressage horse starts from this point up to the higher collection in III. Therefore the concept in shows "training level dressage" is the ultimate misund erstanding in the riding concept of dressage, since dressage starts at the point of the campagne balance. (Horses that are not collected at least to the campagne leve l cannot move soundly through the corners of the dressage arena and consequently suffer when they are forced into them. Don't be surprised when they do not want to go there! In time however, many good/kind horses will accept and come to terms with it, paying for it with injuries and pain).

3 *The “Campagne” riding is trying to move the center of gravity as much toward the center as possible, thus bringing the horse into the theoretical balance in order for the horse to carry the weight equally on the front and hind; thus using all legs equally, becoming maneuverable and easily controllable .*

III. This is a higher degree of collection, due to much greater lowering of the joints and setting the hind legs considerably further under. The higher erection of the neck follows, hence often reaching the vertical position of the head. This is called high level of the school collection, inevitably needed for the high school (piaffe, passage and eventually work in the air).



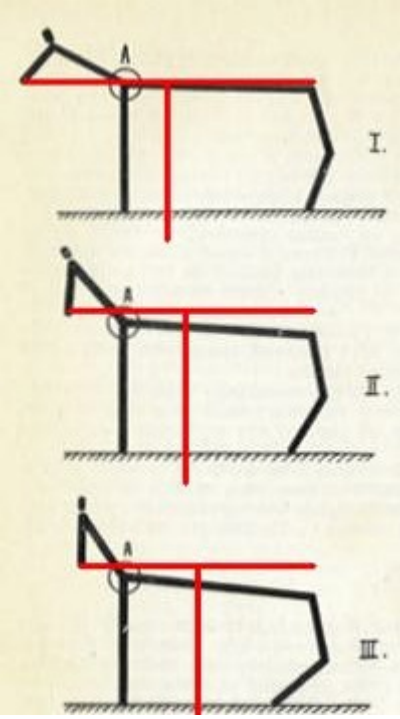
The schematics on the left show the importance of the relevance in the erecting of the neck to the lowering of the hind joint with setting the hind legs under. Not even in the beginning stage of the young horse, the bit is below the horizontal line in relevance to the hip. The straightness of the red line (impulsion line) guaranties a good impulsion/forward swing of the entire body.

Collecting the horse is about collecting necessary energy for the upcoming task, as well as about balance. This can be accomplished only through the lowering of the hind leg joints (the same as in people, like a sprinter in the starting blocks, or person before taking off on a jump). By lowering the hind angles of the joints, the horse's head/neck will automatically go up (mechanics). This is why it is so important that the balanced riding horse flexes his neck at his highest point (the poll) in order to keep the straight line between the bit and the horse's hip through the point A (see schematics on the left).

If the horse flexes in the center of his neck, the bit ends up below the hip line (breaking the horizontal/straight line in relevance to the bit through the point A to the hips, thus losing the forward swing/impulsion) and inevitable problems will follow. Henceforth, using any equipment (other than the bit, plain reins and mainly the riders hands, seat and leg aids) to flex the horse's head will ultimately throw the horse out of balance as well as out of collection.

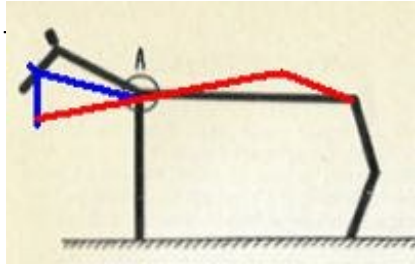
When we are talking about the horse's head being on the vertical, that alone does not collect or balance the horse. The so-called vertical position of the horse's head also relates to the acceptance of the bit by the horse as well as his ability to find the most comfortable position for taking the pressure of the bit relative to the rider's hands. Today riders are concerned with the head on the vertical and just about all of them accomplish that by forcing the horse's head down, which actually throws him off balance even more than if the horse was left alone in his natural balance. It is more often the so-called "advanced" riders of today that are knowledgeable enough to lower the horse's head, putting it on the vertical, thus causing pain and injuries to the horse over time. On the other hand, the less influential or less effective riders that just ride and zjump the horse through the countryside, whileleaving him alone in his natural balance, cause much less damage (providing they do not travel at too high speeds in particular gaits).

Collecting a horse gets done equally from both ends, but as it is, most reputable riders today fail to ride the horse as a whole, but are preoccupied with riding the front end of the horse only.



The schematics on the left show the center of gravity moving gradually toward the rear, thus equally distributing the weight of the rider and the horse on all four legs.

The most important thing to remember is to make sure that above all things, the bit does not fall horizontally below the horse's hips, because once this imaginary straight line is broken at the point A, it will have negative effects on the horse's back, causing him much discomfort. Through the bit, the rider controls (not engages) the hind quarters/hips, or in other words the balance of the horse as well as the collected energy, which is tied in with the concept of getting the horse on the bit as well as together. For example, if the bit is below the hips and we ask the horse to engage/put under his hind legs, it will result in pressure on the horse's back upward, thus the hind end is actually lightened up while the front end is greatly overweight, the horse is then so-called running out of ground with his hind legs, reaching for the ground and losing much of the power/impulsion as well as his balance and he will be harder to stop or to steer. Such a horse is physically unable to lower his joints for the necessary impulsion to perform the next task. This is also one of the reasons that many believe that a horse trained for "dressage" will not jump well or even consistently refuse to jump.



Very common in dressage today, as well as the Western Pleasure horses (among others). The difference between them two (dressage and western pleasure) is only the fact, that the western pleasure horses are more out of balance due to the straight forward extended necks, while the inadequate dressage riders manage to flex the horses neck, put the head on the vertical, while dropping the head below the hip. This schematics shows the stress upward (hunch backs) against the back, while disengaging to a bare minimum the hind legs (the motor).

On the other hand, when we ask the horse to erect his head (often seen by jumpers), without adequately lowering the angles of the hind joints, the pressure downward on the back increases immensely and again causes many physical as well as mental problems for the horse. Both incorrect forms of riding not only cause injuries (sore stifles, sore back, foreleg problems associated with navicular, etc.) and pain to horses. They will also demonstrate themselves in the horse's disposition, as he becomes more nervous, anxious and/or less willing to go to work.

how do we get collection?

The first thing you have to get out of your mind is that collection only means having you horse's head in and down. As long as you think of it this way, the best you will get is

resistance or resentment.

According to Pat Pirelli (http://www.parelli.com/), collection has three different parts: mental collection, emotional collection and physical collection.

Respect is mental collection.

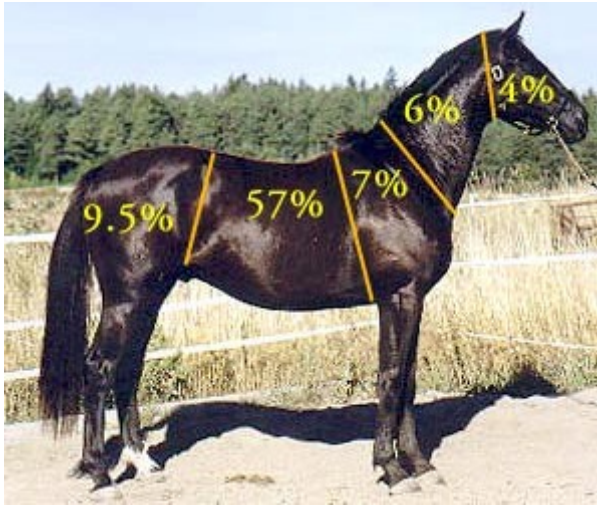
Impulsion is emotional collection.

Flexion is physical collection.

On his website and at his clinics, Parelli explains how to achieve the different steps to collection in the most 'natural' way. An interesting site and illuminating theories, but we have to keep in mind that horseback riding is by definition not 'natural' to the horse at all.

Let us stick to the theory and the more biomechanical explanation of how to achieve 'true' collection.

A horse intended as a mount must be trained to carry the rider's weight in a proper way to avoid breaking down. Many think of the horse as a couch or some other mechanical structure which is meant to carry the extra weight of the human body. But even though the modern sports horse has been bred with better withers, a stronger back and more useful neck, they still have not evolved through the eons to fully compensate for that unnatural state of carrying humans.

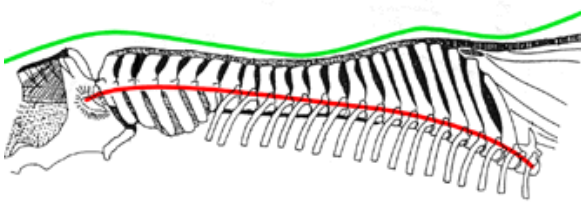


So what needs to happen in the horse for him to carry the rider properly with the least amount of discomfort and maximum performance?

First of all, the extra weight of the rider puts extra pressure on the spine by resting on the back. The spine is a somewhat flexible structure whose rigidity is mostly governed by muscular effort. The viscera of the horse are quite heavy (57% of a 600 kg warm blood is 340 kg!) and this hangs from the spine. Another 60-80 kg added to it (i.e. the rider) will not help anyone.

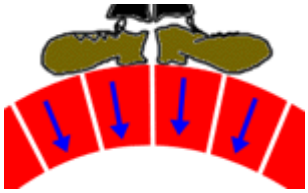
The spine in a young and untrained (or poorly trained) horse is by definition less arched; the more supporting muscle the horse has, the better the arch.

But it is not only the sheer weight of the rider which disturbs the horse. It is the pressure as well. The horse's back is an emotional filter. An upset, tense, angry, frightened horse tenses his back muscles and hollows the back. A rider aboard can be intimidating, at least in the beginning. It will also generate a certain degree of discomfort in the back, which the horse will try to avoid as best he can by hollowing. If these instinctive reactions are not nipped in the bud, the horse will establish a habit of hollowing as soon as the saddle comes off its



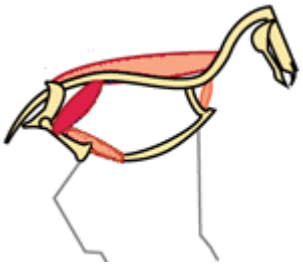
hanger. Before we can even think of collection we should relax the back of the horse and make it round.

Another reason (some would say the most important), why a horse becomes tense and hollows with a rider on board is the fact that his balance is upset. A horse is a flight animal, which needs to be able to turn and bolt in a second, or at least he will believe so until his last breath. To be cemented on the forehand by an additional weight on the back is a nightmare. So before anything else, the horse must learn to not fear having the rider on his back. This way he can relax and not tense the topline muscles and push the back down. The back muscles need to relax in order for the horse to be able to counteract the sagging of the spine that the rider's weight creates. So after having learned the basic instructions for moving forward and stopping, turning left and right (which is initially taught in hand and on the lunge) the horse must be trained to lift the back to compensate for the rider's weight.

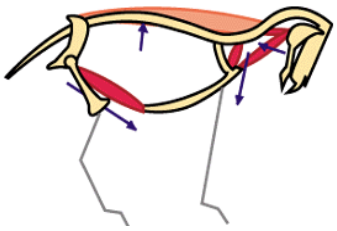


bend the hip-benders

The horse must learn to use his "hip benders" - the iliopsoas muscles, his abs and his serratus near the base of the neck. This is accomplished by moving the hindlegs forward, and preferably a little inward towards the midline of the body to bend the hip. This is best done with exercises and training ‘in the circle’ (*picadero* or *torno* : P eruvian for round pen) as the bend of the circle stresses the bend of the inside hip and the loading of that leg.



the abdominal muscles



The horse needs his abdominal muscles to support the work of the hip-benders. They also make sure that the back curves, by pulling the lower part of the pelvis round and closer to the sternum. Without this action, you can get a horse that bends greatly behind but still doesn't take on any extra weight from the forehand, because the bridge in between is disconnected. The abdominals must work in the rhythm of the gait relaxing as the horse breathes. They are only needed in the supporting phase of the gait, and should thus be "pumping" in time with the pace. It is important that the abs pull the pelvis forward, not pull the sternum (of the chest) backwards! This may sound like semantics but it is not. It is difficult to differentiate between the two since the pelvis and the sternum are both pulled towards each other. But what you want is the hip bend to stabilize the tilt of the pelvis, so that the croup is not flat but rounded and the horse drops the forehand down and starts slanting the forelegs backwards.

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lifting the base of the neck

Dr. Deb Bennet says the following about collection: “When a horse rounds up, that is the first stage or least degree of collection - starts from, and is always primarily the product of, coiling of the loins.” “Collection is continued when coiling of the loins causes the horse to arch the freespan of his back.” and “Collection is completed when the horse raises the base of his neck.”

To summarize, Dr. Bennet says Collection starts with the tucking of the croup and is complete with the lifting of the base of the neck. This is very true, although many people have this confused.

The horse should be ridden to try to collect from behind (which raises the neck) and at the same time stretch over the back (which lowers the head) to relax the upperline and drop the nose from the poll. How do we do this?

In Peruvian equitation, we first relax the horse on the lunge in the round pen before we ride him. He will be less tense. We mount and work in the circle with exercises that will round up the horse, bend his hips and at the same time make him relax in the back and in the poll. These exercises we do at a slow speed (the walk) with a very light contact in the bit and without lifting the base of the neck, so the horse can stretch and relax his upperline muscles and relax his jaw. Once we have managed to ‘round up’ the horse as described before, he is still not in balance as his neck is too low (carrying his weight too much on his forehands). We need to encourage him to lift the base of the neck . Gradually we increase impulsion[4], making the transition of the walk into the paso llano (but with very soft hands keeping a light contact with the bit), which will make the horse go forward and automatically lift his head. Don’t rush him, as you will have more problem keeping contact with the bit light, but just generate enough energy to create sufficient impulsion from the hind legs.

If your horse is using himself reasonably well, he will relax the poll to drop the nose (not too vertical). This is because he will have lifted the base of the neck, to extend the neck, and thus relaxed the contracted upperline. The horse is not asked to contract anything; the horse can find his balance in a relaxed way, use his topline and move through his body. The rider can feel the back, and its oscillations.

To avoid acid build-up and fatigue (read resistance) in an untrained horse, we have to switch between collection (paso llano) and stretching down (in the walk) almost continuously. You don't have to aim to come up very high (never higher than the back can sustain) and you must not go very low. But the more collected the horse has been the more he must be allowed to stretch. The rider can ask the horse to stretch in the walk longer if he feels stiffening or a withdrawal. You as a rider must learn to feel what is happening and to what extent through the horse's back.

What we ask from the horse is not a head set, it is a body attitude. Attitude can only be described as lifting the base of the neck, telescoping the neck forward - down - out, and

4 *The impulse is the energy of the hind legs pushing off the ground and, with the advancement of the hind legs, pushes/drives the horse's body forward. Impulsion comes out of the point where the hind leg is pushing off the ground and is carried through the mechanics of the levers to the loins and through the back onto the whole front end. The impulse alone can be divided into forward action (horizontal-pushing) and into the upward (vertical-lifting) action.*

relaxing the poll. It cannot be drawn on a paper, like a fixed outline can.

There is a world of difference between this and sawing on the reins to lift the neck up by force. The practice of drawing the nose in by pulling hard on the reins can actually do the opposite – it makes the horse pull his head back towards the chest. To do this he tenses his jowl and lower neck muscles. By holding his head in he can press the base of his neck down, which is totally counter-productive to the overall aim. To ask the horse to find his own balance whilst stalking around like a giraffe is to ask too much. This is why horses never understand these requests. The rider asks the horse to step under from behind, asks him to use his abs to hold the back up, but it all just rushes out the front end where the neck is hollowed and the forehand sinks between the front legs.

The reins should never be used as an instrument to force a horse into a certain position while collecting; they can only serve to guide the horse in finding his best balance and controlling his speed and impulsion.

The ultimate balance in collection is achieved by guiding the horse to look for and ultimately find his own 'artificial balance' (collection) while at the same time the horse is teaching you how to ride (adjust to) him.

The Peruvian Paso horse has a conformation carefully designed for good collection:
His hind legs have an angle in the hocks between 120-140 degrees, with relatively short cannon bones, to make treading under from the hind legs easier. His neck is set high in his shoulder and he is of compact build (half body – half leg). The hind legs move in a sliding manner, with little or no hock action, and land in the front hoof print or slightly ahead of it, providing long strides. Being a warm-blooded horse, impulsion and forward movement comes naturally.

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