

FOOTFALL VERSUS VELOCITY

by Terry Wilcox

In 1996 whilst Judging the Afghan Hound Club Specialty in Christchurch New Zealand, I placed a veteran dog who displayed many of the hallmarks I had seen in Australian Afghan Hounds in the early seventies. Shortly afterwards I began a comprehensive effort to define the attributes of the Afghan Hound's Gait.

Australia had from the middle seventies seen a new and different type of enthusiast emerge, some of this new generation had very different aspirations. Their primary objective was to win, ignoring the breed standard, which they claimed was far too difficult to breed to. They felt they knew what judges wanted, and thus how to win. They concluded all one needed to do this was to show heavily coated coat hangers with skinny skulls and able to zip around the ring as fast as possible. Breed standard, or preservation of the species, was not a priority, nobody cared or understood this stuff anyway. By and by the older breeders dropped by the way. Now our new generation of enthusiasts were looking for elegance and attitude, refinement, coat colour, lots of advertising and egregious self promotion, finally they claimed they had movement to boot? But did they?

By the middle seventies the breed was reaching its halcyon period, the numbers were 200+ at Metropolitan shows and one Speciality numbered over 500 Exhibits. By the eighty's the numbers began to diminish to a stage where currently, the breed is acknowledged as a rare breed and may well have a good probability of becoming extinct in the not too distant future. This presentation is from my perspective from the antipodes.

Video is a invaluable tool, it is objective. It compares dogs long time past, with today's hounds and allows for conclusions on measurable and empirical evidence. Through video we can use slow motion high definition digital clarity to understand the bio mechanics of movement as well as grade and directly compare individuals from different generations.

What is so special about video?

- Video is accessible to all of us, in mobile phones, SLR cameras and specialised Video Cameras.
- Video provides valuable information, especially for breeders.
- Video proves there is a unique novel afghan gait, which can now be measured.
- * Video allows for movement to be bench marked and graded.

When I commenced this journey into gait, video was my first tool of choice. I began by building a comprehensive library of images and video of the early Afghans, along with developing a photographic based pedigree program that aligned history and the introduction of Afghan Hounds into Western Society.

Archival video soon provided the continuity between generations of the mechanics required to facilitate efficient movement for the Afghan trot. When one compares this gait to the Saluki the Afghan movement is appreciably more flamboyant due to Afghans greater angularity and unique synchronicity and co-ordination.

The first video clip provides a collection of dogs dating from the late sixties. Note how the leads are loose and low, unlike today's double chokers and drag arounds.

The second video illustrates a hound who is highly animated by what he anticipates is in the adjacent paddock. He presents himself in full flight only to learn, the ears of the two donkeys that he could see were not what he had hoped for?

<https://vimeo.com/280469859>

<https://vimeo.com/97171092>

The FCI have banned chokers now, this didn't prevent handlers ignoring these recent rule changes at the WDS 2018.

My next challenge was to address the differences between the standards when describing gait and in particular the "Trot". This topic when discussed frequently has passions boiling over. Most breeders and enthusiasts alike have well defined opinions, mainly formed from literature written post 50's. Slow motion video has clarified all of the confusions of earlier times.

Moving on I began to formulate bench mark tests. Then I began to evaluate the importance of the structural or anatomical balance according to the Breed Standards for the back, neck and hind quarters, to look for some sort of Mendelian genetic patterns, which could be employed to provide some repeatability and reliability for producing classic gait. This was a tall order, with structure not being the governing factor for producing classic gait, although the standard provides an ideal template for structure required to produce correct movement.

This led to looking for other factors which govern movement, leading to the conclusion everything related to movement is genetic. and dependent in conjunction with the environmental factors governing the animal's well being, diet, exercise, physical opportunity and stimulation, but most of all the genetics of the pedigrees of each individual animal and the opportunities provided to maximise the animals potential.

Finally the cerebellum is the organ responsible for co-ordinating movement, again this is all about genetics. Therefore, take a dog who displays the classic attributes for gait, mate this to a bitch who is not as good and bred for elegance and refinement, what are the chances of getting great movement like the sire's? Now repeat the exercise and include a dam whose attributes are also heavily endowed with excellent gait attributes, the chances will probably be appreciably more successful than the first example.

The previous pages outlines classic Afghan gait, the next section will deal with manufactured gait, the systems employed by handlers to win at all costs.

The problem starts with young hounds being trained to show at speeds they are not able to negotiate and required to overstep or sidewind to obtain the speed the handler demands.

When a young hound has his forequarters damaged by excessive speed the forequarter assembly never fully recovers. It is virtually a down hill run for the exhibit's show career.

As breeders (Ada and I) we do not begin to extend our own stock until around 15 months of age. This is the age when, in our lines the hound begins to mature, the sloping pastern develops sufficiently to optimise the dog's natural gait, and the true phenotype becomes manifest. This is the age where pups who were awkward bumble bees suddenly develop a whole new poise and grace, this is where the coordination and synchronicity begin. This translates to the following, it is this stage one must ensure your charge is getting adequate and has appropriate exercise, and is gifted every opportunity to develop to its full potential.

At this age the croup and rear settles the neck begins to lengthen and puppy fat around the muzzle disappears.

Lead training should always be executed on a loose lead. The head should always be carried high. The Australian standard requires **The head MUST be carried proudly**. Therefore this precludes the use of choker chains. Can you imagine what would happen if a judge insisted in testing for this hallmark of the breed. When was the last time you saw a judge intentionally check for this hallmark?.

The choker is all too frequently used and abused, I have recently videoed a handler who had perfected the Double Choke, Triple Garotte. I videoed the head and facial expression in slow motion. The footage shows the poor exhibit grimacing and clenching its eyes with each and every garotte. Such treatment is clearly abuse, yet it seems the more exhibits are abused, the greater the likelihood of reward from some judges, some call this pro handling, I think not?

Nature has evolved the Afghan Hound novel smooth springy gait to suit the breeds compact yet long leggy angularity.

The Afghan Hound, is a square breed, unlike other oblong species, where the front and rear quarters are set further distance apart to the height of the individual. Longer cast breeds do not intercept at the interchange when trotting.

To better appreciate Afghan Hound gait, one needs to understand when trot increases to a velocity of around approx, 4 kilometres this is dependent upon height to length ratio of the individual when during the normal cycling of the limbs they will intercept or have to side step to avoid impacting.

Nature has evolved a different gait synchronicity and mechanical action to compensate for the Afghan's compact structure.

This is achieved in two ways, firstly by lifting the front limbs up and out of the way of the oncoming rear foot. This mechanism enables the rear foot to pass directly under the front foot which has tucked up out of the way of the oncoming rear foot.

The American standard explains this action, by noting the action gives the impression of the rear foot stepping into front foot print. Strictly speaking this optical illusion fails to account for momentum and the distance travelled whilst all feet are air born during the swing cycle, it also doesn't cover the distance traversed in the airborne state which is determined by the velocity of the trot.

All dogs have a short airborne period during the accelerated trot. The second part of the action is where the front pastern collapses as the front limb reaches the vertical state of the cycle, simultaneously the rear hind quarter hock also collapses, this in turn lowers the topline. Then two actions are enacted, the front pastern gathers up, lifting the height and tucking the pastern whilst simultaneously the rear pastern drives the body both forwards and upwards by as much as 4", resulting in the unique smooth springy appearance of the Afghan Hound's gait.

The next two videos

<https://vimeo.com/282240036>. *Velocity II and through stepping*

<https://vimeo.com/282228566>. *Deals with the 3 benchmark tests to evaluate the calibre of the trot.*

There are three more aspects which need consideration when evaluating Afghan Hound gait:

“Head Carriage” The head should always be carried high. Constance Miller coined the term “Reconnaissance Trot” this being a survival-related trot to survey the surrounds for prey. Another remarkable characteristic of this head carriage is it doesn't extend forward when the trot velocity increases, unlike other canine breeds. The way in which the Afghan Hound manages to keep its head erect during the full flying trot is yet to be understood.

“The Topline” should always be rock solid, horizontal on the move, no dip or sway or fall away to the hip . Looking down on the spine shows remarkable suppleness as it snakes with each and every stride.

“The Tail” tells much about the disposition of the individual, there is one physical aspect which can be observed. As the dog reaches forward the tail should show a discernable unfurling of the ring with each and every stride. As the front toes reach to negotiate the ground foot fall the tail reflects this extension unfurling then slightly contracts only to open again with the next limbs extension.

Movement: The limitations of human eye has meant a comprehensive appreciation of the Afghan Hounds locomotion wasn't available until the last decade or so when high speed video, cameras or smart phones became commonly available to illustrate exactly how different this breeds gait really is. The human eye is only able to distinguish actions of some 100ms. Unfortunately few Afghan enthusiasts have engaged these new technologies to assist with their breeding programs.

In this presentation I discuss what I believe is correct movement, plus the bench mark tests I devised and carried out with little or no human intervention other than positive verbal re enforcement and reward.

Video <https://vimeo.com/125212196> illustrates the natural athletic nature of this breed

The Afghan Hound is a naturally evolving force of nature, they are inherently athletic and enjoy a challenge. Their personality is different from other domestic breeds, they can be head strong, they demand respect and respond best to being challenged respectfully, Their spirit can be broken, once broken the amazing rapport with the handler is lost. This is a special bond of trust rather than the conventional "master servant relationship". The Afghan Hound's disposition is individualist and different to other breeds. You must invite an Afghan Hound to partake if well developed bond and that special relationship is to be encouraged and nurtured.

Understanding the very basics of movement is essential to allow this slow developing breed to mature. The joints and bones are fast growing and green, and can easily be irreparably damaged if the pup is denied the ability to negotiate and trot at a velocity suitable for its age.

Afghans do not begin to mature until 15-20 months. Like in other large breeds such as greyhounds and sled breeds who also mature around 18 months.

The Afghan's gait should not be over extended until this age. This does not mean to exclude free exercise, which is essential for normal development. In fact exercise is essential, plus the opportunity to naturally develop its skill base over rough and rugged hilly terrain is paramount, which is what nature evolved for this breed to master, hence its unique structure.

The most common gait of the Afghan Hound is the mammalian walk, then the trot, canter, slow gallop, etc. The trot comes in many forms, from slow to the full flying trot, This requires remarkable synchronicity and co ordination to be executed correctly. All too commonly young Afghans are dragged around the ring, too fast, forcing the exhibit to overstep, this will severely damage the fore quarter joints and cartilages, resulting in a reluctance of the exhibit to trot in a free effortless manner at a later age.

The head should always be carried naturally high, best achieved with the lead set low on the neck and loose. Judges who allow a choker applied under the chin sadly fail to appreciate the basics of correct gait and what the standard calls for a natural high (Proud) head carriage. Many blood lines have lost this unique ability to carry the head, many judges fail to test for this unique hallmark.

- The Trot should be a measure to evaluate the calibre of the footfall, it is not a race.
- It is all about foot fall and through stepping, not velocity.
- Look for correct head carriage, topline, tail and symetry.

Let's look at the question of speed. How fast can an Afghan Hound trot? This was the very first benchmark test I developed, back in the early 2000's.

A fit well balanced Afghan Hound can trot appreciably faster than the fastest handlers. Initially I had problems measuring this speed, it wasn't until I employed an elite runner (an athlete who can run 100m in 11 seconds or better), then I had the means to resolve this question.

The next benchmark test was to measure the "lift" at different speeds, this required a 30m horizontal panel with 25mm coloured vertical steps to measure how the wither and outline would rise and fall with each and every stride.

The final benchmark was to measure the through stepping distance relevant to speed, this was accomplished by placing rulers on the ground and measuring the distances of through stepping between where the front foot leaves the ground and the distance where the rear foot makes ground fall.

All of these tests required slow motion cameras. These simple tests are easily repeatable, and assist to show how remarkable the Afghan Hound is.

Now other aspects to observe when measuring the calibre of gait: The tail should never be bolt upright or showing no movement.

Afghans can be gay and show frivolity or pleasure as the Hound moves, Static or side tilting, wry or coiled excessively is not correct.

1: head carriage is naturally held and never lead assisted.

2: The topline is level.

3: The tail is moving in harmony with the completion of each and every stride.

4: The topline rises and falls with each and every stride.

5: The amazing suppleness of the spine as it "S" snakes along during the trot. Take the time to observe this characteristic.

6: Check the interchange between the fore and aft limbs as they interchange.

Slow the exhibit if gaiting fast, So these observations can be made. The appearance should be of a athletic ambling hound. You should see a balanced termination of reach

and drive with the rear trailing marginally longer due to the front needing to move slightly sooner due to the synchronicity of the front moving up and out of the way of the rear.

7: The rise and fall or smooth springy gait is determined by fore and aft pasterns. The front pastern is almost horizontal when the front limb is at the vertical state of the cycle, the rear pastern has also lowered, the front gathers and tucks up out of the way of the rear foot, and the rear leg begins driving both up and forward, thus creating the smooth springy effect. This is all happening at a speed it is impossible to see, what you can see is the smooth rising and falling of the topline.

The next video deals with overstepping back in 2004 <https://vimeo.com/282261730>

The next videos deal with how we train our puppies to lead at 6 weeks.
<https://vimeo.com/206772378>

Next at 16 weeks <https://vimeo.com/266780665>

The final clip deals with novice dogs at 18 months and preparing for the show ring interestingly they never forget their early training <https://vimeo.com/281227386>

Learn to cherish the Afghan Hounds unique Hallmarks.

A little bit of History

When I commenced this journey to provide an explanation of Afghan Hound gait, I didn't appreciate the enormity of the project. I started by checking the earliest reference to the Persian Greyhound which occurred around the 1820's. In 1834 Queen Victoria was presented with "Ibadan" a Persian Grey Hound found in Eastern Turkey, given by two Belgian Traders seeking favour.

At the same time the UK launched a Regiment into Afghanistan to control the Pastoons and War Lords. It is from this point onwards, a trickle of Afghan Hounds or sheep dogs were returning to the UK by returning soldiers. They were entered in the foreign breed classes at local dog shows. Meanwhile the Afghan Campaign was anything but successful.

In 1878 The British Government sent a new Scottish Regiment along with a Indian regiment of elephants, this was successful and on this occasion, we saw more dogs returning to the UK after soldiers completed their tour of duty. It was in 1916 Major Bell Murray in charge of logistics in Baluchistan began his breeding of Afghan Hounds, these dogs are the beginning of all our contemporary Hounds when he returned to the UK in 1922, bringing six dogs with him the rest is history.

The first Standard was in Henry Bylands 1899 book Dogs of All Nations. The first comprehensive Standard is the Indian Afghan Hound Standard written by Rev. W H Bush a noted Oriental sight Hound Specialist circa 1905. The Rev. W. H. Bush, a member of the UK Army, was responsible for setting up the Lahore KC. Exact dates and records have since been lost in the sands of time. The one great feature for collecting and converting old 8mm film is how wonderful it is to see Great Afghans Icons from the past. Not all icons were as some might have us believe, really that great, others were wonderful.