

## **Problems in the German Shepherd Dog**

I read the Summer edition of the GSDCA Review (2015) in relation to problems in the breed and in particular 'loose hocks and *overangulation of the hindquarter*', both issues about which I have commented on and written about over the last 30 odd years.

As a Judge I take my responsibility to the breed seriously and as such felt that I should respond to what I read and do so in an interesting and informative way.

I have emailed this response to the '*Editor of the GSDCA Review*' asking that this be published in the Review.

Louis Donald  
January 2016

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The comments to which I refer were as follows:

***'The breed in Europe is not immune to problems of size, weak under jaws, wide set ears, narrow and not correct fronts, short under chests, deep hindquarter angulations and of course the talking point at this time 'loose hocks'.***

***These problems have been with the breed for as long as I can remember and I offer 'Canto von der Wienerau' as an example.***

***This dog [Canto v d Wienerau - photo provided] is one of three pillars of the breed with the others being Quanto von der Wienerau, Mutz von der Pelztierfarm and it can be argued Marko vom Cellerland should be included in this group.***

***Common opinion is that Canto shaped the German Shepherd Dog as we know it today. He was, compared to the dogs of the day, exaggerated; his hindquarter was always of concern and this lead him to receiving a class II classification. He had pronounced angles of the hindquarter and was cow hocked.***

***Based on current discussion, this dog if he was born today would never had progeny and yet back in 1968 we have a dog born at a time where he was "something else". Breeders saw something they liked in the dog and the rest is history.***

***In the end type won the day; Canto only lived 4 years but in that time truly laid the foundation that made the breed what it is today.***

***As breeders, Judges and Breed Surveyors how far do we sacrifice type in order to eliminate a problem? This really should be the discussion we need to have and not succumb to the reactive catch cry's that only focus on faults and not the virtues of our breed.'***



**Canto von der Wienerau**

In relation to the list of problems being around a long time.

The problems listed have certainly existed in the breed for a long time. These problems and many more were declared as problems by Captain von Stephanitz and others in the early 1900's, i.e. short croups, steep croups, short upperarms, weak temperament, light eyes, cow hocks, hip dysplasia, steep upperarms, long coats, cryptorchidism. short coats, lack of combative instinct and prey drive, high tail sets, oversized ears, weak backs, low withers, standing east west, dwarfism, weak backs, loose elbows, overbuilt hindquarters, elbow dysplasia, fine heads, fine bones, weak pasterns, missing teeth, overlong tails, whites, blues, flat ribs, roman nose and the list goes on.

All these problems, most of which were articulated as 'declared faults', have been at various levels of predominance and genetic frequency within the German Shepherd Dog since its creation as a breed. At one time or another they have all been subjected to various levels of attention. Historically, the level of attention and the degree of concern and urgency applied to rectifying those problems, those declared faults, was determined by their impact on the dog. More specifically, determined by the degree of impediment the fault had in relation to the dog's health and or its ability to optimally fulfill its function as a working, trotting, endurance, sheep herding, sheep tending guard dog without peer. Underscoring the degree of attention and importance that was applied to each fault was a desire by the breed's guardians to maintain the directives of Captain von Stephanitz. Those sentiments and directives remain embodied within the SV today:

- ***The German Shepherd Dog is a working dog and as such it must only be judged and assessed as a working dog.***
- ***Usefulness ranks higher than beauty, real beauty and a dogs nobility consists in the dogs complete suitability and a balanced proportion linking together each and every part.”***

The breed founder's determination and request for future guardians of the breed to put 'working type' ahead of 'show type' can best be appreciated by his recorded comments in his book *'The German Shepherd Dog'*.

***'In breeding and judging never put perceived beauty ahead of fundamental working dog traits. We must always be careful not to take a wrong turning by putting up dogs which do not meet the standard type of working dog as such a course will only harm the breed'.***

As a result of some of the developmental changes that have taken place in the structure, health, and temperament of the German Shepherd Dog other breeds such as the Belgian Shepherd Dog, Labrador and Beagle have taken over the exalted standing the German Shepherd Dog once had as the number one service and utility dog in the world. Some of these changes, especially in regard to the public's perceived concern for the health of the breed, have impacted on their popularity as a family dog. For example hip dysplasia is considered by many members of the general public to be related to unstable hindquarters/hocks. The number one standing the German Shepherd Dog once had no longer exists because too many of the 'guardians' failed to maintain the principles established by von Stephanitz. The guardians put more focus on the German Shepherd Dog as an exhibition specimen than as a working dog. They put 'their perceived beauty' articulated as 'type' but really being 'style' ahead of the breed's basic inherent working dog fundamentals.

My observations here and in Europe is that too many of the breed's authoritative figures have a disconnect between overangulation and loose hocks. I believe this is done in an attempt to play down the side effects of overangulation because they believe the further the hind feet are located behind the rear of the pelvis the better the dog can propel itself forward. Exhibitors who may be concerned about overangulation really only have three choices. Leave the breed, fall in line or speak up publicly. However, to speak up publicly would be to their detriment in the show ring and very often at a club level when they have to front the 'power makers' who are never shrinking violets. For those who are new to the breed it is simply a matter of assuming what you see winning in the show ring must be correct, that this is what you need to own and breed.

It was very interesting that of all the historic dogs of note, 'Canto v d Wienerau' was put forward as an admirable icon of the breed. Put forward as a dog with significant faults but who 'won the day' because he was considered by some people to be 'desirable type'. More than that, declared as being *'the dog'* that has made the breed what it is today. And I quote:

***“Compared to the dogs of the day Canto was exaggerated, his hindquarter and its quite severe infirmness and cow hocks was always of concern and this lead him to receiving a Class II classification. He had pronounced angles of the hindquarter and was cow hocked”.***

***“In the end ‘type’ won the day; Canto only lived 4 years but in that time truly laid the foundation that made the breed what it is today.***

***As breeders, Judges and Breed Surveyors how far do we sacrifice type in order to eliminate a problem? This really should be the discussion we need to have and not succumb to the reactive catch cry’s that only focus on faults and not the virtues of our breed.”***

‘Type’ or more appropriately in the context of this response, ‘style’, is transient. ‘Style’ is very often influenced by a small handful of people, sometimes only one person utilizing a dog or dogs that they have bred. In this case it was two people, one was Walter Martin the breeder of ‘Canto von der Wienerau’ and the other was Herman Martin, his brother who was the SV President/Breed Warden. Herman was the judge of the most important and most influential show dog class in the world, the adult male working dog class at the German Sieger Show. Herman was the person who decided what road the development of the breed would take; the style of dog that Specialist judges throughout the world should and did promote and perpetuate. In effect, Herman greatly influenced which dogs won at Specialist shows and which did not. This is what creates ‘style change’ in the German Shepherd Dog at a global level.

Dr Rummel, who was President prior to Herman Martin, recognized Canto von der Wienerau’s father Hein vom Königsbruch and his grand father Fix zu den Sieben Faulen as dogs who were long, overangulated in the hindquarters, unsound behind and lacking in temperamental hardness and fight drive. In the case of Canto his breed survey report states that he had a good croup, very good chest development, a ground covering gait and harmonious lines with a lovely topline but that he was loose in the shoulders and hindquarters, stood and walked cow hocked, threw his hocks both upward and outward when he gaited and his fight drive was only ‘present’. Whilst not stated in his breed survey, Canto had color paling and passed it on and like himself he did not produce strong male heads. He did possess a very good ratio of chest to foreleg length. A point in regard to Canto’s hocks which were obviously very bad – when a dog is overangulated, relative to the degree of overangulation the hocks will be infirm and when the dog stands and trots the weight of the dog’s rear hand will cause the hocks to deflect inward as in cow hocks. When looking at Canto, my opinion is that his cow hocks were created by more than his deep hind angulation. Putting aside classic overangulation, ingrained ‘cow hocks’ are created by either the hock joints being crooked or the leg/s being turned out at the hip due to infirm ligaments or muscles, which then turns in the knee, my suspicion is that in Canto’s case it was a combination of one or more of these things.

Canto's father 'Hein vom Konigsbruch' was exhibited at the Sieger Shows under SV President Dr Funk and later under SV President Dr Rummel where he was only graded 'good'. In real terms this is as close to ungraded as you get. Hein's exaggerated hindquarters, which were deeper than Canto's, were noted but the low grading was primarily because of his weak temperament.



**Hein vom Konigsbruch**

Regardless, Canto's progeny especially when they were crossed with Quanto von der Wienerau did very well in the show ring.

Quanto was a much better coloured dog than Canto, had a better length and angle of the upperarm, a deeper chest and he was also a proportionately stretched dog. Quanto did very well at the Sieger Shows under Dr Rummel where he was awarded VA a number of times.



### **Quanto von der Wienerau**

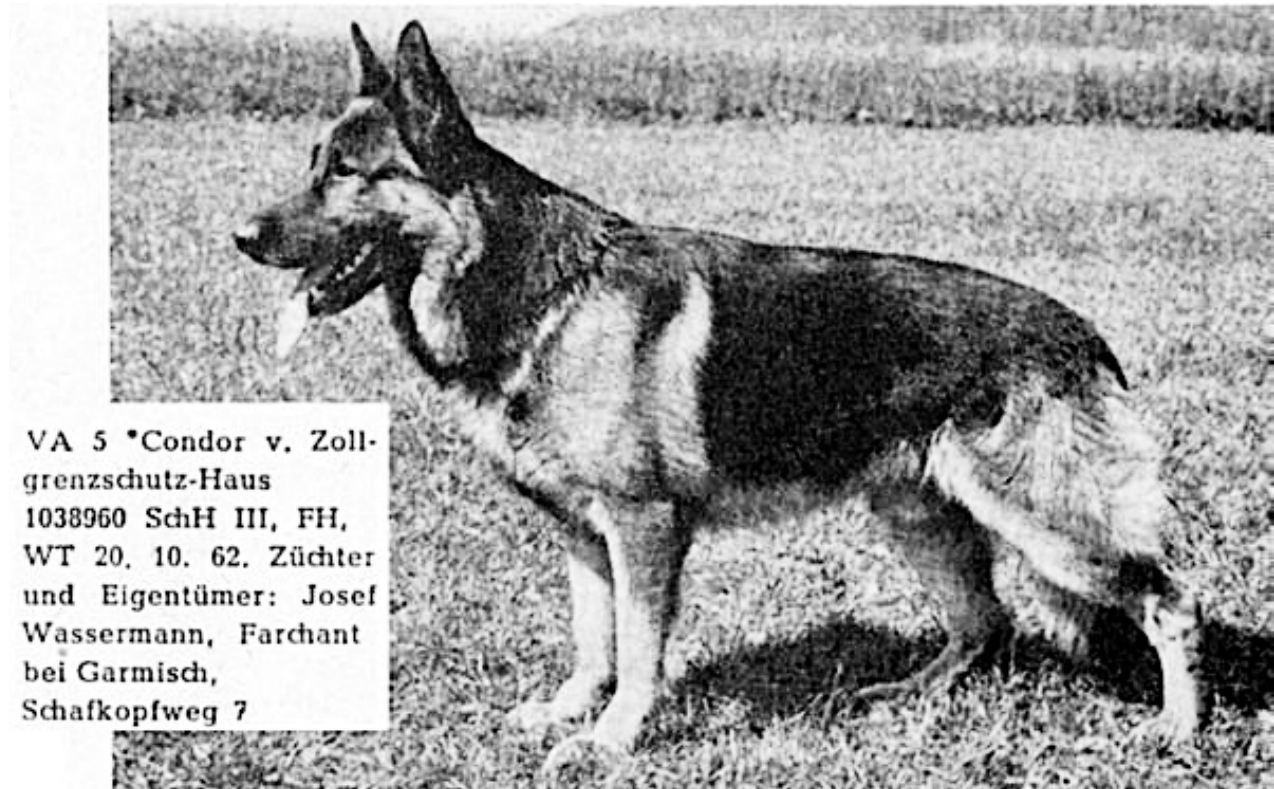
The increase in the body length that came from Canto and Quanto gave an extension to the overall stride. The extended stride, black and red colour, together with deeper hindquarter angulation was embraced and promoted to the point of significantly increasing the gene frequency for those two traits within the breed population in Germany. How Canto's influence impacted on the fight drive is best commented on by others who are involved in this part of the dog sport. Canto and Quanto created a change in the 'style' of dogs that were winning shows. It created a Wienerau style; a 'Wienerau brand' and everyone wanted the brand because the brand won shows. For major breeders winning shows increased their revenue and that continues today at an even greater rate and even greater remunerative value. In many ways this became a significant aspect as the breed's core driver and this is what stands in the way of badly needed change today.

Canto von der Wienerau certainly influenced the breed whilst he was alive and for a period after this. He brought to the breed 'perceived glamour' and 'showy side gait dynamism'. He was responsible for the introduction of exaggeration, overangulation of the hindquarter, weak temperament, paling colour, infirm hindquarters, loose hocks, cow hocks, and weak male heads.

At a breed survey re-present of Canto in 1971, the year he was made V1 at the Sieger Show, the notation was made that the high lifting of the hocks had improved but that he still stood and moved cow hocked. This, plus an improved fight drive, was sufficient grounds to raise his classification to Class 1.



Quanto was a far superior dog to Canto not just in phenotype but also in ancestral terms. In complete contrast to Canto's father, Quanto's father, Condor v Zollgrenzschutz Haus, was stated by Dr Funk as having 'construction exempt of faults', 'perfect fore and hind angulations', 'superior temperament' and 'maximum combative instincts'. To Funk's expressed disagreement Condor was criticized for being too small - he was 62cm.



For many people of this period the attitude to deeper hind angulation was this; if the deeper hindquarter or even overangulation created unstable hindquarters and loose hocks then that was simply the price one had to pay for the new style, it was simply collateral damage. In effect exaggerated 'style' or as most would articulate it, 'type' with its emphasis on black and red color and a dynamic side gait became more important than working dog fundamentals and that included soundness. Unfortunately this view continues to this very day.

Quoting another comment from the Review:

***"Canto only lived 4 years but in that time truly laid the foundation that made the breed what it is today".***

Whilst Canto contributed to the breed's development, the breed today in 'genetic and phenotypical' terms, is influenced by a great many dogs well ahead of Canto.

If you take a dog of contemporary influence carrying Canto, he (Canto) would sit at about the 12th generation! In genetic terms how long does one continue to say dogs that

existed 12 or more generations ago are still 'pillars of the breed' and have 'great influence' today?

In a 12 generation pedigree, appreciating there will be an overlap of common ancestors, there are 4,096 ancestors.

Galton's Law states the following:

*A dog gets 50% of its genes from its father and 50% from its mother [1<sup>st</sup> generation] It gets 25% from each of its grandparents [2<sup>nd</sup> generation] It gets 12.5% of its genes from its great, great grandparents [3<sup>rd</sup> generation] 6.25% of its genes from the great, great great grandparents [4<sup>th</sup> generation] 3.12% from the 5<sup>th</sup> generation, 1.56% from the 6<sup>th</sup> generation, 0.73% from the 7<sup>th</sup> generation, 0.36% from the 8<sup>th</sup> generation, 0.18% from the 9<sup>th</sup> generation, 0.19% from the 10<sup>th</sup> generation, 0.80% from the 11<sup>th</sup> generation, 0.40% from the 12<sup>th</sup> generation and basically 0% from the 12<sup>th</sup> generation.*

Additional to the above:

*Whilst a dog gets half its genes from its father it may get anywhere from none to all of them from a grandparent! The presence of any dog in a pedigree is no guarantee that the animal bearing that pedigree carries any genes from a particular ancestor and the further back that ancestor is in the pedigree the less the likelihood. Ref. Dr Malcolm Willis.*

And after all these factors there is absolutely no guarantee that prior to DNA testing an ancestor is who it is purported to be.

Further on you will see a very relevant example of the above factors in the dog 'Dingo vom Haus Gero' who is inbred 2-3 on Canto!

Using Canto and Quanto, Walter and Herman Martin's influence increased the gene frequency in the breed population to favor dogs that exhibited the following traits. Black and red colour, deep hind angulation, stretched body proportions, had a distinct downward bend to their lumbar spine and therefore a lower hip and knee position and consequently greater topline slope with a less sound but spectacular far reaching side gait.

The influence of Herman can best be demonstrated by the following:

At the two Sieger Shows prior to Herman taking over as President, Dr Rummel was promoting and perpetuating the bloodlines of Mutz von der Pelztierfarm, Marko vom Cellerland, Canto von der Wienerau and Quanto von der Wienerau with a leaning to the promotion of working dog lines via Marko and Mutz. This is what coined the phrase the four pillars'.

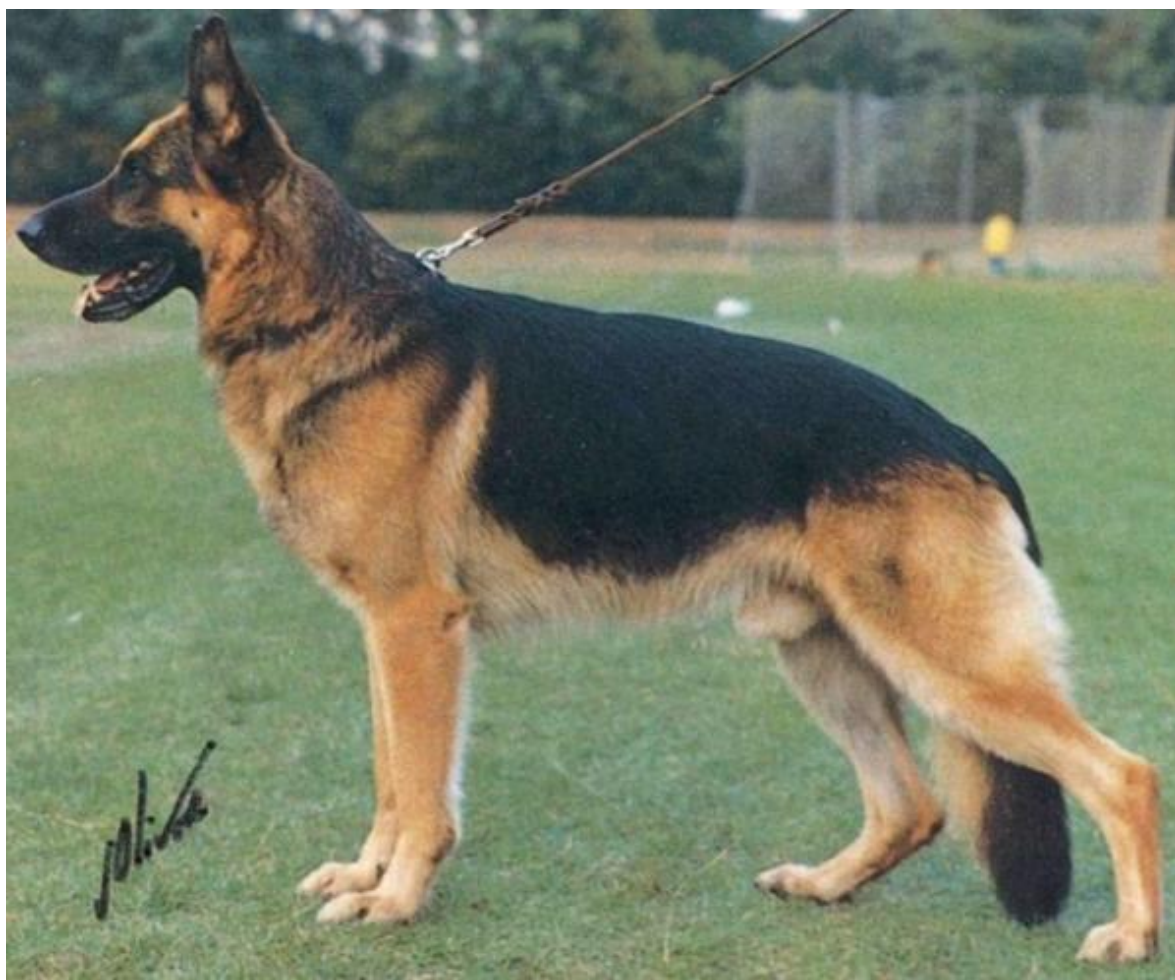


Dr Rummel's Sieger in 1982 and again in 1983 was the Mutz typical 'Natan von der Pelztierfarm' who carried the line of Quanto but no Canto.



### **Sieger 1981 and 1982 Natan von der Pelztierfarm**

In Herman's first year the desire to significantly reduce the influence of Marko and to reduce the influence of Mutz in favour of Canto and Quanto and for these two dogs to dominate the breed in Germany, reduce the four pillars to two and to forge a new 'type' was in absolutely no doubt.



### **Sieger 1983 Dingo vom Haus Gero**

In 1983 Herman gave 11 VA awards and the outcome in bloodline terms was as follows:

- VA1 - Canto v d Wienerau inbred 2-3. Quanto v d Wienerau 2<sup>nd</sup> generation dam side
- VA2 - Quanto v d Wienerau linebred 4-3
- VA3 - Quanto and Mutz both at 3 on the sire's side. This was 'Natan v d Pelztierfarm'
- VA4 - Canto and Quanto in the 3<sup>rd</sup> generation on both sides
- VA5 - Quanto 3-4 and Canto on the mother's side at 3
- VA6 - Quanto 3-4 and Mutz 4
- VA7 - Quanto 4<sup>th</sup> generation. Mutz 3<sup>rd</sup> generation
- VA8 - Canto 3-4 on the mother's side. Quanto 4,5-5 This was Uran v Wildsteiger Land
- VA8 - Canto in the 2<sup>nd</sup> generation and Quanto in the 3<sup>rd</sup> generation
- VA9 - Canto in the 3<sup>rd</sup> generation. Mutz 4<sup>th</sup> generation
- VA10 - Canto 3-4. Mutz 4<sup>th</sup> generation.



As stated earlier, a small handful of people, even one person of influence can change a breed's direction, its style and even its type. After Herman died Peter Messler became President of the SV. Peter Messler's first Sieger was in 1995 and his last in 2002. His last Sieger was 'Yasko vom Farbenspiel'. Yasko was a very lovely balanced dog with nice angulations and a straight clean back. He obviously reflected what Peter Messler saw as the 'style' to be promoted and that included a regard for 'wolf grey sable' color. Other than an undermined and consequently failed attempt to reintroduce some working dog lines his preferred style of dog was really not too different to Herman's. His sentiments toward working dog fundamentals were different, but he encountered resistance and that was unfortunate for the breed.



**Sieger 2001 2002 Yasko vom Farbenspiel**

A significant change occurred when Peter Messler passed away. For over 100 years the President of the SV was the appointed judge of the adult male classes at the Sieger Show however this was changed to having a President not involved in the judging and the class was judged by senior SV judges in an alternating arrangement. From the results there was an obvious synergy and agreement between them on what was to be promoted and that was obviously further exaggeration

The selection of 'Bax vom der Luisenstrasse' as Sieger by Eric Orschler in 2003 signaled the shift to promoting dogs that exhibited strong, powerful heads, exceptional forehand angulation associated with a deep chest to foreleg ratio. They were typically rich red and black colour, with pronounced substance, large size, a distinct downward lumbar spine bend and overangulation of the hindquarters created by an overlong lower thigh both of which inclined the angle of the croup. It signaled a shift to dogs that exhibited a lower hip and knee position. This was a breed game changer, the fork in the road and a massive widening of the divide between show dog and working dog.



**2003 Sieger Bax von der Luisenstrasse**

Eric judged the adult males again in 2004 and 2005. The dog he made Sieger on both occasions was 'Larus vom Batu' In 2004 VA2 was Hill vom Farbenspiel and in 2005 VA2 was Quantum vom Arminius. Larus was a superior dog to Bax in every way including the fact that Larus provided continuity to the work of Peter Messler via Yasko, Larus' father. Like Bax, Larus was deeply angulated. The fact that Eric had bred Larus was obviously a point of conversation but he was not the first President to make a dog he bred Sieger!





**2004 2005 Sieger Larus vom Batu**

In 2006 the judge was Heinz Scheerer and he awarded the dog 'Zamp vom Thermodos' the Sieger title. Whilst there was a gradual progression to the style of Zamp this bore a parallel to the time of the introduction of 'Canto von der Wienerau'. If there was any doubt that an increased level of exaggeration was being introduced to the breed in Germany this removed it.



**2006 Sieger Zamp vom Thermodos**

The following year was Reinhardt Meyer. He selected the dog 'Pakros d'Ulmental' as Sieger. Pakros was a son of 'Bax vom Luisenstrasse'. This represented a consolidation on the exaggerated traits including the genetically linked excessively long tail. This signaled a new style or to use the common term, a new type.



**2007 Sieger Pakros d'Ulmental**

Reinhardt Meyer reinforced this in 2008 and again in 2009 with his Sieger, a son of Pakros, 'Vegas du Haut Mansard'.



**Vegas du Haut Mansard**



Since 2009 there have been various variations in the style theme, some good such as the 2010 Sieger 'Ober vom Bad Boll' and the 2011/2012 Sieger 'Remo vom Fichtenschlag' and some not so good. It has been a mixed bag so to speak but the die was cast at this period and it has remained steadfast.

Loss of soundness became a casualty of the desire for perceived glamour. Once you have a large number of dogs like this it becomes the norm, it is no longer even noticed. It is no longer focused on as a problem to be seriously addressed, it no longer becomes something that needs to be rectified and to express concern is to invite criticism.

Because of Walter and Herman's enormous influence you either followed them or got out of the breed. Those who stayed and most did, liked the exaggeration and the spectacular animated side gait. They liked the bright, rich black and red colors and an animated enthusiastic movement that demands a screaming, yelling double handler blowing on a trumpet while he swings a bright yellow ball in the air. Over time, on the basis of more is better, the SV and many overseas countries have not only perpetuated this but expanded upon it and that is still a 'work in progress' today. Australia is yet to feel the full impact!

Historically, the primary driver for changing breed direction, changing breed type has been based on selecting, promoting and narrowing the blood base based on a dog's phenotype. Then line breeding and even inbreeding to genetically increase the frequency of those desired traits within the breed population. It is called 'assortative breeding'.

*It is a practical approach in the sense that a pedigree is only as good as the animal that carries it. "A poor specimen is not improved by possession of a prestigious pedigree or ancestor"* Dr Malcolm Willis. In other words if the son or grandson of 'Remo vom Fichtenschlag' is a very ordinary dog the fact that his father or grandfather is Remo can and often means nothing!

The only factor that 'interferes' with the objective of promoting dogs that one believes should be promoted for their breed value is nepotism. This muddies the water, makes things a bit confusing especially for the novice, and makes the actions contradictory to the stated objective. That is the way the dog sport works, you have to preserve your power base and support your decisions.

If we were to look at the '4 pillars of the breed' and take some VA males from the recent Sieger Shows and use them as a visual demonstration of "what the breed is today" in relation to their ancestry and their type, my analysis provides the following results:



**Mutz von der Pelztierfarm**



**Iliano vom Fichtenschlag** - descendant of Mutz v d Pelztierfarm

If you look at the photo of Mutz and compare it Iliano there is very little that one could say represents inherited traits from Mutz. Any traits that may appear to be the same have a probability of not coming from Mutz but from another ancestor.



**Marko vom Cellerland**

Nothing of note today resembles 'Marko vom Cellerland' and putting aside dogs that were the 'very earliest' fore bearers of the breed none of them are his descendants.

Toward the end of his Presidency Dr Rummel who perpetuated the working dog values of his predecessor Dr Funk tried unsuccessfully to promote 'Marko vom Cellerland' as one of the four core drivers of the breed. Marko was a true medium sized dog who came from little-known sheepherding bloodlines. He was unexaggerated especially in the hindquarters and had very strong temperament. Interestingly he had a recessive gene for all black colour.



**Canto von der Wienerau**



**Mentos vom Osterberger Land – descendant of Canto**

No dog today really looks like ‘Canto von der Wienerau’. Putting aside his slightly long weak head, his colour paling and including his lovely chest to leg ratio he is nowhere near as deep in hind angulation as many of the dogs that we see today. Significantly what you see in Canto is a lower thigh [tibia] that is absolutely fine in its length but an upper thigh [femur] that is too long. Because Canto is standing overstretched it may make it difficult for some readers to visualize what the hindquarter would look like if the hock was plumb.





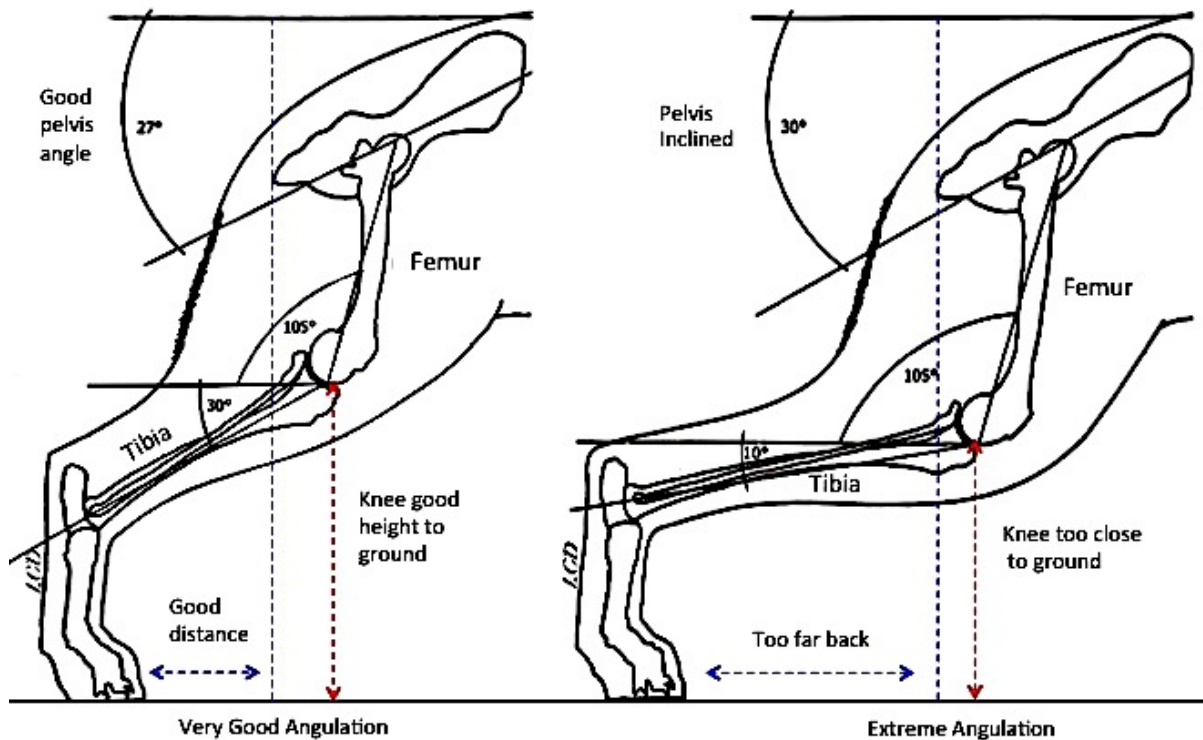
**Quanto von der Wienerau**



**Memphis vom Sollebrunnen – descendant of Quanto**

Of the “four pillars of the breed” the only pillar that can be reasonably said to have some influence on today’s dogs is Quanto v d Wienerau. Having said this one should look beyond the black and red colour and look closely at the individual traits.

When it comes to discussing “overangulation” it is worth stating that the term is a misnomer. This is because ‘overangulation’ is historically the term used to describe a dog that stands with the hock being too far behind the end of the pelvis. This is generally associated with a dog with a tibia that is too long. As can be seen in the following diagram when this occurs the open angle between the femur and tibia actually decreases, becomes ‘less angled’ not ‘more angled’.

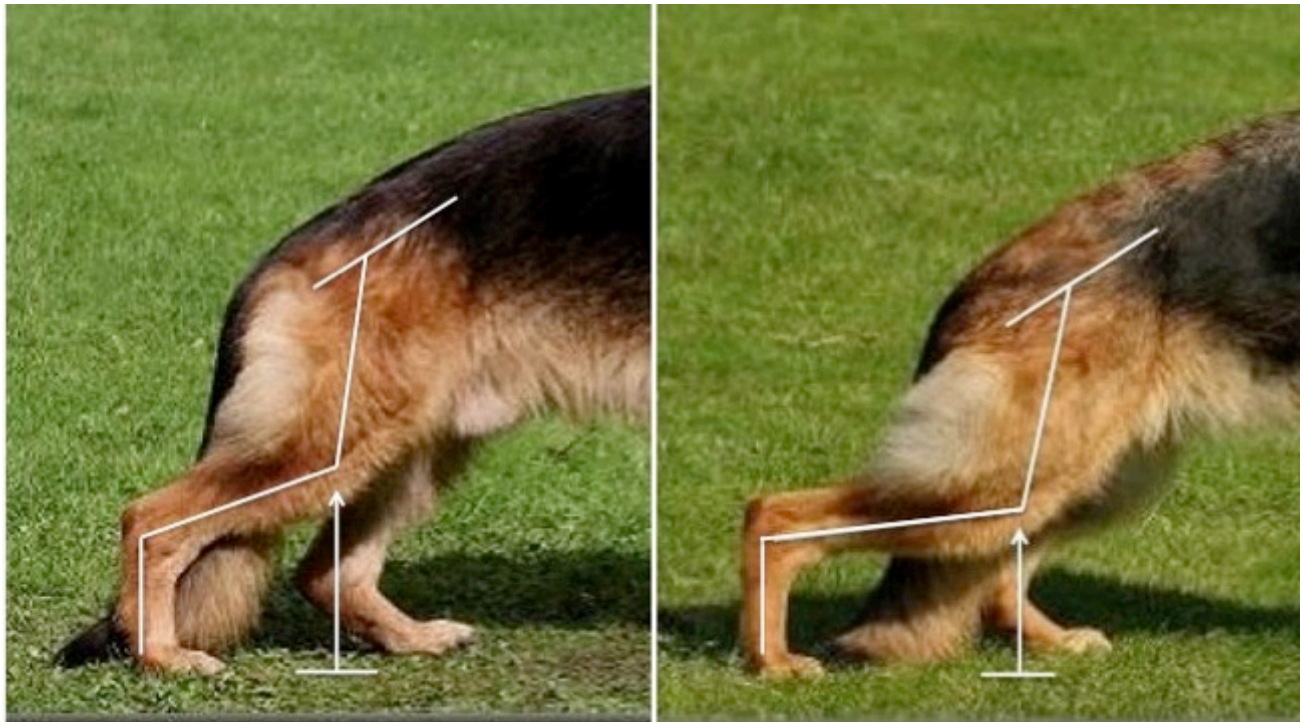


What you can see in the above diagrams is that in the well angulated dog on the left the tibia and femur are of about the same length and the pelvis is about the same length as the femur and at angled about 27 degrees to the horizontal.

When the bone lengths are proportionate to the dog and they are in this ratio to one another the open angle between the femur and tibia will be about 120/130 degrees. As the tibia gets longer the angle between it and the femur reduces as can be seen on the right where it is 115 degrees.



The diagrams can be overlaid onto actual dogs as seen below.



**Very good hind angulation**

**Extreme hind angulation**

The opinion that deeper angulation is more effective for a 'trotting endurance dog' is a fallacy. This is because the higher the hip [and knee] is from the ground the less energy consumed in making each hind stride and vice versa. To get some appreciation of what I am saying try the following;

Stand up straight, feet together then with one leg take as long a forward stride as you can without raising the heel of your other foot. With both feet now secured to the ground note the length of the stride heel to toe and then bring your extended foot back to its original position. Now still standing with your back straight slowly bend your knees. Bring them closer to the ground "and remember to keep your back vertical". With your knees fixed in that lower position and keeping one foot securely in place extend the other leg to replicate the distance achieved by the previous stride and in doing so observe the stride distance and feel the sensations involved in that action.

Mechanically speaking the ideal distance for the rear extended hock when it is positioned vertically is about 70mm behind a plumb line dropped from the rear of the pelvis, from the tail root. For a dog of good fitness, a good length of pelvis and therefore good muscle mass this is a good guide to effective, sound enduring hind angulation. Beyond this configuration you start with the following:

### ***‘Excess to needs angulation’***

- *Some degree of infirmness to the hocks and whilst unattractive to observe, relative to working fundamentals and endurance it is to an acceptable degree. This is now the norm in the German Shepherd Show Dog and basically accepted by GSD Specialist judges.*
- *The rearmost pastern/metatarsus/hock opens out to an effective degree on the rear swing*
- *The very forepart of the rear pastern on the forward swing comes in contact with the ground but the pad of the foot absorbs most of the ground impact.*
- *Some slight incline to the pelvis*
- *Some slight lowering of the hip and knee position.*
- *Some additional slope to the topline*

### ***‘Deep angulation’***

- *Loose hocks that show a small degree of cow hock in stance and more in movement. Stepping a little narrow behind.*
- *The rearmost pastern does not attain its optimum opening angle, it comes forward too early or lifts to dispel the energy*
- *The rear pastern on the maximum forward swing has a bit too much of its face coming in contact with the ground*
- *A small additional incline to the pelvis*
- *Further lowering of the hip and knee toward the ground in stance and movement*
- *Further slope to the topline*

### ***‘Overangulation’***

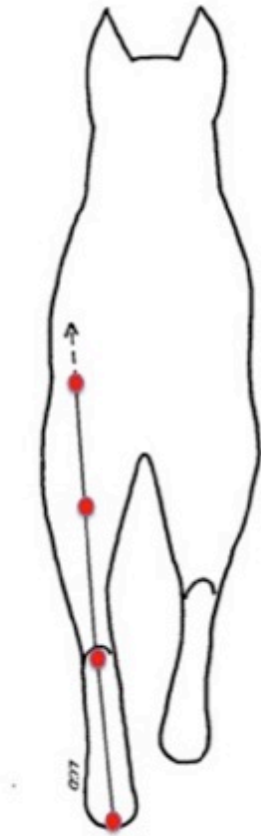
- *Loose hocks and the degree of cow hock in stance is seen especially in puppies where it is inevitably explained as ‘normal for a GSD puppy, it will grow out of it’ Stepping a little narrow behind*
- *The rearmost pastern stops prematurely or is lifted upward on its maximum rear extension*
- *More forepart of the rear pastern on the maximum forward swing comes in contact with the ground*
- *Incline of a couple of degrees to the pelvis*

- *Some further lowering of the hip and knee position*
- *Some further additional slope to the topline*
- *Some degree of instability can be seen in the whole hindquarter during movement*
- *The rear toes travel closer to the ground during the dog's locomotion*
- *Endurance whilst not being able to be measured in the show ring is impeded as the above impediments each in its own particular and interrelated way dilute and then consume more energy*

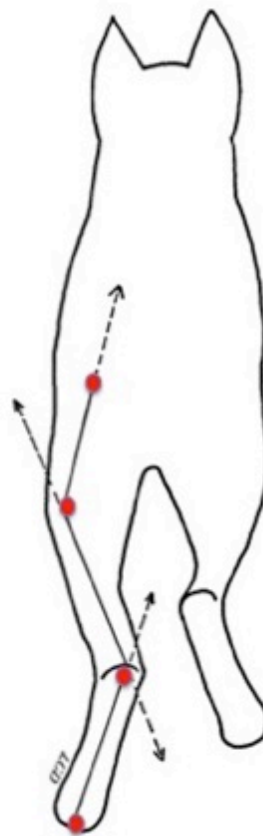
### ***'Extreme overangulation'***

- *Very loose hocks and the degree of cow hock in stance is clearly seen especially in puppies where if they are lacking in muscle mass and muscle development will almost scrape their nails on the ground as the walk. This is where a shuffle can sometimes be observed. The hocks fulcrum platform is destabilized laterally impeding the dog's ability to turn effectively at speed. Stepping narrow behind*
- *The rearmost pastern stops prematurely. Depending on other factors such as the forehand assembly it can be seen to stop on its rearward swing close to the vertical position. The hocks are very often lifted upward at the dogs maximum rear extension. When this lifting occurs at a very fast powerful trot the rear foot itself can be seen to 'roll upwards'*
- *The vast bulk of the rear pastern on the maximum forward swing comes in contact with the ground and this creates significant shock to the hindquarter*
- *Incline of a couple of degrees to the pelvis*
- *Too low a position of the hip and knee position*
- *Excessive slope to the topline*
- *Instability to the whole hindquarter during movement*
- *The rear toes travel close too close to the ground during the dog's locomotion*
- *In movement especially the fast trot the ideal balance between 'rear drive stride' and 'forehand reach' is lost. The dog will enact various compensatory footfall steps and upward lifting of the hocks and lifting of the forelegs at the elbow in an attempt to find a balance. In cases where the drive is powerful the velocity at which the foreleg is lifted at the elbow will manifest itself in the forefoot being seen to drop at the wrist*
- *In the trot energy consumption is markedly increased and endurance is greatly impeded*

The final point is this. Go back to the two photos of the dogs showing the angles. Picture in your mind's eye applying weight on top of the pelvis, applying weight above the spot where the femur joins the pelvis, imagine pushing down with the palm of your hand, the weight is actually gravity. Ask yourself this question - which dog best withstands the weight?



**Very good hind angulation**

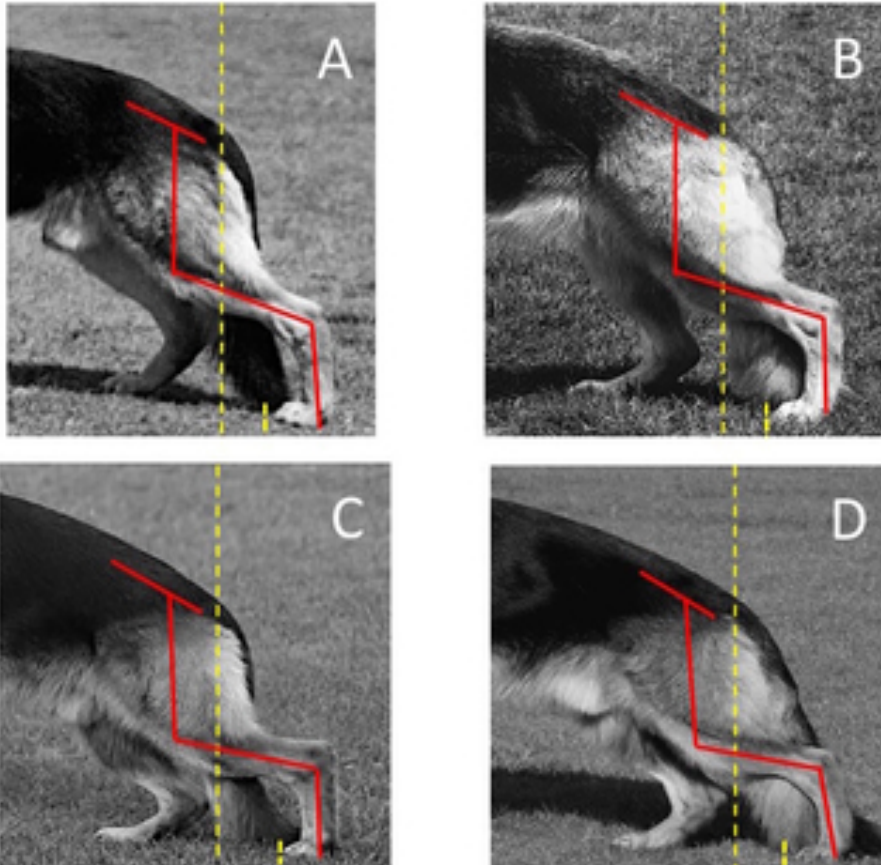


**Overangulation**

The above diagrams show how energy is transmitted from the ground through to the forequarter in a dog that has very good hind angulation and one that is overangulated. Keep in mind that an amount of pressure applied to the ground results in an equal amount of pressure returned from the ground. In the well-angulated dog the energy is directed in a relatively straight line and therefore fully utilized. In the overangulated dog the energy is deflected at the joints. Relative to the degree of overangulation the dog's age and its muscle development in the overangulated dog the deflection of energy pushes the hock joint inward as in cow hock. As the dog pushes harder on the ground to begin its forward movement this pushes the knee outwards further impacting on the hock joint deflection and finally the energy comes into the hip at a less than ideal angle.

There are many forms of hindquarter construction and just like the overlong tibia they all come in various degrees. Some are serious impediments to the dog's locomotion and others are not. A few of the more common ones can be seen in the photographs below. Taking into account the dog's standing position, in most cases the far side foot in the photos is in the standard position i.e. rear foot approx. under the 'pin bones'. Observe

that the angle to the ground of the rear pastern/hock reflects the degree of 'overangulation' and in most respects the degree of impediment to locomotion i.e. the flatter the lower thigh [tibia] gets in relation to the horizontal [as seen when the dog is standing with the hock vertical and the far foot under the hip bones] the flatter the hock will go to the ground and vice versa and this applies during the trot, especially the 'flying trot'. Comparative lengths of bones between dogs cannot be made as the scale between the dogs is not the same.

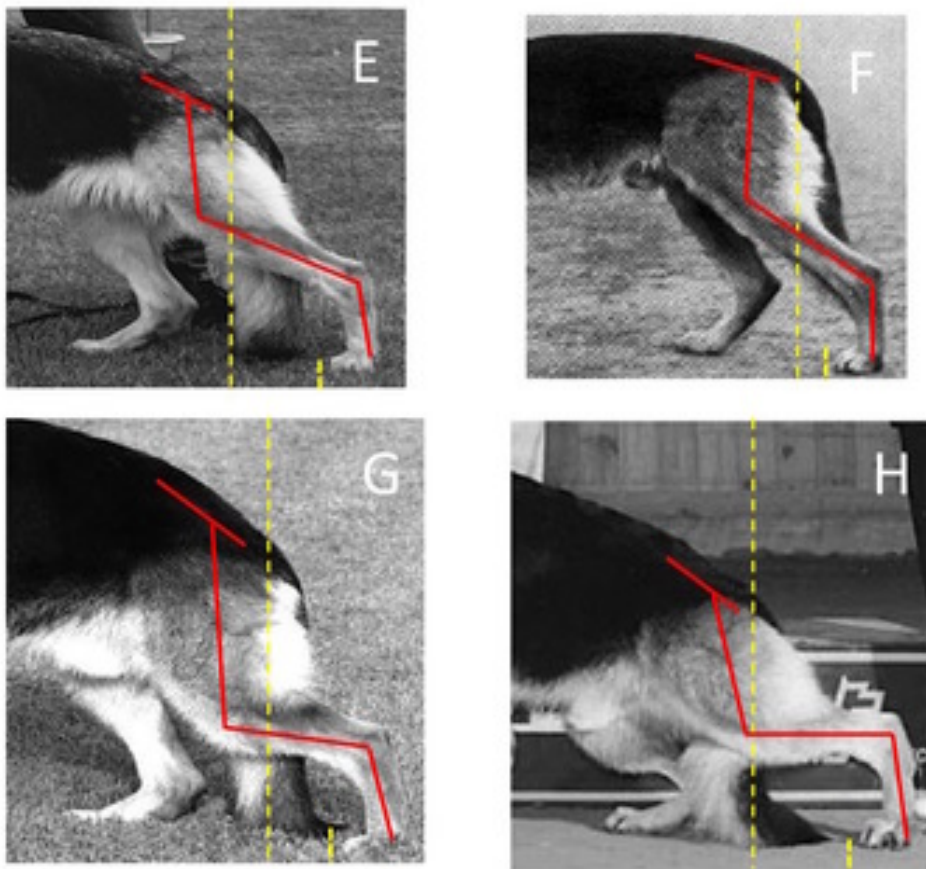


- **Figure A** Very good hind angulation, I could actually say excellent. The dog is standing overstretched of course but very good length of the upper and lower thigh. Straight lumbar spine. Note the angle of the lower thigh [tibia] to the ground and the distance from a plumb line dropped from the end of the pelvis/tail root to the front of the toes shown in yellow is very good.
- **Figure B** Typical of today's German Shepherd Show Dog including a downward bend to the lumbar spine. This creates a lower hip/knee position than the dog in figure A. The lower thigh is a little longer than the upper thigh therefore this dog is more 'angulated' than the dog in figure A. In all respects this is a balanced and effective hindquarter but any more and the hocks will start to show some degree of infirmness. The distance between the plumb line from the tail root and the front of the toes is very good. For me this is an acceptable compromise.
- **Figure C** This dog is 'overangulated'. This is caused by both the upper and lower thigh bones being too long. This and the downward bend to the lumbar spine has significantly lowered the hip and knee position and as a consequence the tibia is at



too flat an angle to the horizontal. The rear foot is too far past the plumb line. This dog will be loose in its hocks, during movement a significant part of the rear pastern will make contact with the ground, will not be as stable in its hindquarters nor as enduring as the two dogs previously described.

- **Figure D** Not what one would call overangulated but this is a configuration that is a rapidly increasing developmental breed trend. The upper thigh is a little too long and the lower thigh is too short. If the lower thigh was the same length as the dog in figure C it would be overangulated with the same problems of instability. What exists here is not as effective a hindquarter as the dogs nor will it be as firm in the hocks as in Figure A and B because it is imbalanced but it is still an effective hindquarter and allowing for the dog being overstretched you can see the distance from the plumb line to the front of the toes is very good. This can be seen in 'Remo vom Fichtenschlag'.



- **Figure E** What you see here is a short upper thigh and very long lower thigh. As with any dog where the lower thigh is way too long the hindquarters will be unstable and the hocks a mess. Allowing for the dog being over stretched the distance between the plumb line and the front of the toes is far too great.
- **Figure F** This is a dog who is 'under angulated' in the hindquarters as a result of the upper thigh being too short and being a built overbuilt has levelled off the pelvis angle thereby raising the hip and knee position too high. You can see the angle of the lower thigh is too steep, this brings the knee too high from the ground to generate optimum thrust and you can see the distance from the plumb line to the front of the toes is too short.



- **Figure G** A more extreme version of Canto in part because of the downward bend to the lumbar spine and steep pelvis. Taking into account that the dog is overstretched the knee is too close to the ground and consequently the tibia is too level to the ground. The impact on the hocks will not be as significant in dog E.
- **Figure H** This is where the breed does not want to go but there are plenty of dogs that have and that number is increasing. Accounting for the dog's far foot forward stance position, which is the same as Figure E and G, and there is really nothing more that needs to be said.

In the case of Canto, his impediment in the hindquarter is the femur [upper thigh] being too long. The length of his lower thigh [tibia] is fine. In his day he was overangulated, and Dr Rummel clearly did not like it, but 'by today's standards' he was not 'overangulated' and this can be seen by looking at the angle to the ground of his far rear pastern.

We have some dogs today like Canto, but the primary problem today is actually the complete reverse of Canto. It is an overlong lower thigh and this creates greater instability in the hindquarter; instability in the hocks and in extreme cases (See Figure H) it can cause a shuffling movement where the nails can even scrape the ground.

What this shows is overangulation today is caused by an overlong lower thigh. This is seen in the photo below of 'Yuri vom Osterberger Land', the only VA stock coat tail male Canto descendant in the 2015 Sieger Show." The overangulation that you see today is not from Canto.



**Canto von der Wienerau**



**Yuri vom Osterberger Land- Canto descendant**



**Quanto von der Wienerau**



**Quoran' d'Ulmental** - Quanto descendant

If the 'four pillars' have been genetically replaced by other dogs of influence then who are they?

Even though the mother provides 50% of the genes and genetic inheritance can be anyone's guess historically the general tendency is to simplify such questions by referring simply to 'tail male lineage' and line breeding coefficients. All females and their sire lines are disregarded other than when declaring linebreeding hook ups! This is done to focus on particular sires and to encourage linebreeding on those sires to increase their genetic frequency, increase their traits within the breed population; this is what changes population 'style'. I note that Lothar Quoll has broken with that tradition in his reports and provided details on the mother line of his VA dogs.



My opinion as to what dogs form the basis for what you see today is as follows:



**Quenn vom Loher Weg**

A very lovely dog with some great attributes such as a beautiful forehand, long croup, impressive masculinity and substance, good underline, and good chest to foreleg ratio. He has deep hind angulation, and this in all probability comes through the mother's line via 'Ecki von der Wienerau'. The downward bend in the lumbar spine is obvious and these two factors significantly lower the hip and knee position.



**Ecki von der Wienerau**

(Apologies for Photo Quality)



**Furbo degli Achei**

Furbo was Quenn's most influential son and exhibiting the same attributes as Quenn including the downward bend to the lumbar spine and overangulation.



**Hill vom Farbenspiel**

Hill was a lovely dog, he was large but nicely balanced, produced strong temperament and there was no exaggeration. Obviously not as substantial, not as masculine nor as robust as Quenn. The bend to the lumbar spine is there and he is not quite as good in the



forehand as Quenn but very good in the forehand all the same. Whilst he had 'full hind angulation' the hindquarter was balanced there were no issues unless there was a crossing to lines carrying overangulation.



**Remo vom Fichtenschlag** - great grandson of Hill

In most respects Quantum was a very lovely dog with a great many attributes including a lovely straight backline, slightly shallow stop but strong head, long defined withers, very good forehand, he was deep in hind angulation and passed it on.



**Quantum vom Arminius**





**Zamp vom Thermodos**

Zamp was Quantum's most influential son. He epitomized the 'more is beautiful' principle. He was a lovely moving dog in side gait, had lovely lines and strength, high withers, nice underline, good bone, long croup and he was a great showman. Like Canto he was an elongated/long dog who was overangulated and passed it on with great frequency. He carried this trait forward from his father Quantum.



**Ober vom Bad Boll**

The other influential grandson of Quantum, Ober vom Bad Boll is a much more balanced working type dog than Zamp and a dog of excellent temperament. In all respects a much better dog than Zamp and a very good German Shepherd Dog.



**Vegas du Haut Mansard**

Vegas reflected the 'style' that was being sought. However, unlike the other three dogs he convincingly reflected his direct continuous sire line. That line had been selected and promoted because it represented a style that appealed to the senior authorities within the SV. Promoted because this represented a furthering of the genetic frequency and its consolidation. It represented an acceptance if not desire for a downward bend to the lumbar spine, overangulation and infirm hocks. Vegas is a pre-potent manifestation of his sire line.

Because of the promotion and substantial linebreeding that took place on Vegas and because these characteristics were pre-potent they increased the genetic frequency of both traits along with a few other problems such as large soft ears. The upside is that Vegas did help with size, masculinity, and substance and continued the lovely forehead and clean well developed over and underlines.

The focus and determination in forging Vegas's sire line can be seen in the following photos of his tail male sire line taken to about the end of their meaningful genetic influence, the 4<sup>th</sup> generation.



In these dogs we can see many virtues particularly in the forehand, the over and underline, the under and forechest development, croup length, strength of head and general substance including chest depth but the object of the point here is overangulation, the linked downward bend to the lumbar spine and consequent lower hip and knee position.

Depending on the degree of line breeding there is a mix of hindquarters that are acceptably full, to deep, to overangulated and bringing with it as a consequence slightly infirm hocks through to very loose unstable hocks.



Vegas' father **Pakros d'Ulmental**

- Strong head
- Very good ears
- Withers not pronounced
- Pronounced downward bend to the lumbar spine
- Long but steep croup
- Slightly deep chest to foreleg ratio
- Very good forehand angulation
- Overangulated hindquarters
- Low hip and knee position



Vegas' grandfather **Bax vom Luisenstrasse**

- Strong head
- Very good ears
- Level withers
- Pronounced downward bend to the lumbar spine
- Long but steep croup
- Slightly deep chest to foreleg ratio
- Very good forehand angulation
- Overangulated hindquarters
- Low hip and knee position



Vegas' great, great, grandfather **Odin vom Hirschel**

- Strong head
- Good ears – rolled tip
- Level withers
- Pronounced downward bend to the lumbar spine
- Long but steep croup
- Slightly deep chest to foreleg ratio
- Very good forehand angulation
- Overangulated hindquarters
- Low hip and knee position





Vegas' great, great, great grandfather **Nero vom Hirschel**

- Strong head
- Very good ears
- Good withers
- Downward bend to the lumbar spine
- Slightly short slightly steep croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Very good hind angulation
- Low hip and knee position
- 

In the above primary dogs – Quenn, Hill, Quantum, Zamp and Vegas represent the influence of the following dogs, the new relevant pillars.

'Zamb von der Wienerau', 'Jeck vom Noricum', 'Odin von Tanenmeise'. If there are dogs that should be seen as the dogs that had some influence over today's dogs it is them, not 'Canto von der Wienerau' and that can be borne out by simply looking at Canto and today's VA dogs and look at them and do the same.



**Zamb von der Wienerau**

- Strong head
- Very good ears
- High long pronounced withers
- Straight clean backline
- Slightly short slightly steep croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Very good hind angulation
- High hip and knee position
- Good tail length



**Jeck vom Noricum**

- Strong head
- Not so good ears
- Withers not pronounced
- Peak to the back
- Pronounced downward bend to the lumbar spine
- Long but slightly steep croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Overlong upper thigh
- Low hip and knee position
- Long tail
- Stepping close behind





**Odin von Tanenmeise**

- Strong head
- Very good ears
- Withers not pronounced
- Slight peak to the back
- Pronounced downward bend to the lumbar spine
- Long but slightly steep croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Overlong upper thigh
- Low hip and knee position

Of the twelve dogs that were made VA this year, 6 dogs carry the lines of Vegas du Haut Mansard within the first 3 generations, that's half the VA group. This could not be considered to be broadening the blood base!

In the context of being a responsible Breed Judge and a Breed Surveyor it is important to identify and then focus on faults and bring them to the attention of people. Many faults are not realized or understood by people who are new to the breed unless people who are experienced express their concern. If this does not happen how are they to learn?

How are they to know? Virtues should be acknowledged and enjoyed if not bragged about, but the focus by Breed Surveyors should be on the breed's primary faults with the objective of fixing them. This is their moral obligation, this is their job.

When judging a dog at a normal dog show or just standing looking at the latest import or looking at the dog that just won the class you should see the virtues before the faults. Not look for them but see them before you see the faults. This can be very hard especially if you have a personal bias, but you should do this. You should try to see and if asked express the virtues of a dog before the faults and then offer a summation of all the traits in a balanced way. Virtues should be celebrated and enjoyed but in the case of responsible breed guardianship faults are what require identification, focus and open discussion in order that solutions can be found to eradicate them. But to do this you have to understand and accept your responsibility to the breed, see the breed beyond a focus of it being no more than a show specimen and most importantly to know there actually is a fault that needs focus and eradicating.

Canto von der Wienerau was at the core of the Review comments and was put forward to demonstrate the value of focusing on 'type and virtues' before 'faults'. Canto von der Wienerau was Walter Martin's tool in initiating within the German Shepherd Show Dog sport a desire for some exaggeration or as he saw it some glamour. This included some extra body length, an increase in hind angulation, a longer croup, spectacular animated dynamic side gait and with the help of Quanto von der Wienerau rich black and red colour and greater substance and depth of chest. The exaggeration in hindquarter, the fixation on side gait was at the expense of soundness.

Over time and whether you liked what he did or not Walter created a shift to a new 'style'. The shift was a move away from working dog ideals. It was a furthering shift toward glamour and with the support of Herman he drifted a bit too much to the glamour side in the latter days of his life. But since his death this shift has been taken to a far more exaggerated level, it has stepped well beyond his visionary line and consequently further away from the fundamental working dog ideals. Some people believe that what exists today is the style to which Walter aspired, that what we have today, in any extreme form, is the direct result of Walter and Herman is incorrect. In lengthy discussions with Walter he said when a German Shepherd Dog gets too 'pretty', too 'glamorous', too exaggerated then it no longer complies with the breed's fundamental requirement that it is a working dog.

Walter died in 1996 and Herman died shortly after, just 4 years after Walter attained the absolute height of his goals. He has been dead almost 20 years and what he envisaged as the ideal German Shepherd Dog may surprise some people and it may help to explain the reference about Walter liking and breeding dogs that, in his opinion, were a balance between show dog and working dog!



## Reflections and relativity:



**German Sieger 1992 Zamb von der Wienerau**

Zamb was considered by Walter to be the best male he ever bred, a dog he believed went very close to reflecting the standard and a dog that would become the contemporary foundation for the breed, the breed's new cornerstone.

- Dry and firm
- Strong head
- Very good ears
- High long pronounced withers
- Straight clean backline
- Slightly short slightly steep croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Very good hind angulation
- High hip and knee position



**German Siegerin 1992 Vanta von der Wienerau**

Whilst Walter held Zamb in very high regard, especially as a sire, he considered Vanta to be the best German Shepherd Dog he ever bred, that she fulfilled his lifelong ambition to breed the perfect German Shepherd Dog as he saw it. In his opinion Vanta was literally a living example of his interpretation of the written standard, she was for him the perfect balance between a working dog and a show dog.

- Strong head
- Very good ears
- High long pronounced withers
- Slight downward bend to the lumbar spine
- Very good croup
- Very good chest to foreleg ratio
- Very good forehand angulation
- Slightly long upper thigh with slightly long lower thigh
- Low hip and knee position



**German Sieger 2015 Ballack von der Brucknerallee**

- Very strong head
- Very good ears
- Level withers
- Straight clean slightly sloping backline
- Very good length but steep croup
- Very good forehand angulation
- Deep hind angulation
- Slightly low hip and knee position





**German Siegerin 2015 Cristal di Casa Massarelli**

- Strong head
- Very good ears
- High long pronounced withers
- Straight clean stretched significantly sloping backline
- Very good croup
- Long steep upperarm
- Extreme hind angulation
- Very low hip and knee position

A final comment on Canto von der Wienerau.

Canto certainly influenced breeders during his time but what needs to be mentioned is that his premature death was due to him being a haemophiliac, what needs to be mentioned is that Canto von der Wienerau died as a result of internal bleeding after a chest injury. Reference: my discussion with Walter Martin in regard to how Canto died.

Canto has a place in the breed's history. That place is as 'the dog' responsible for introducing haemophilia to the breed. Whilst no son of Canto was a carrier, every one of his daughters, perhaps 200 odd, was a carrier of haemophilia and 50% of their offspring were affected males or carrier females and incrementally diluting back from there. Just think about what that represented in regard to the dogs and their owners/families!

People who used Canto at the time were not aware he was a haemophiliac but with hindsight Canto should never have been bred from "no matter how nice one may have thought his type". In that context it seems extraordinary that some people today, experienced people, appear to have little concern about the fact that Canto was a haemophiliac. That perceived benefits to 'type' outweighed matters pertaining to the dog's functionality as a working dog and arguably even its health.

The comment was made '**we should not succumb to the reactive catch cry's that only focus on faults and not the virtues of our breed**'.

By 1972 some of Canto's haemophilia carrying daughters and their sons would have been identified. The 1973 Siegerin, two VA bitches in 1974 and 1975, and another VA bitch in 1977 would have been carriers. By this time haemophilia in the breed had become a major talking point, however, the seat of the breed's influence was in total denial. To speak publicly about it in Germany was to invite criticism and even retribution. It was discussed of course, how could it not be, but behind closed doors. Anyone who openly expressed concern was told to focus on Canto's good points, to focus on his many virtues. They were told to focus on his 'winning progeny and superior type', and by and large self interest in the form of keeping in good favour with those in power ensured they did! The pinnacle came in 1978 when the Sieger was a Canto son, bred by Herman Martin. Canto and Quanto were now well on their way to becoming the 'two pillars of the breed'.

In 1980 it was confirmed by Poirson in France that 'Canto von der Wienerau' was the source of haemophilia in the German Shepherd Dog breed. Not good news for Walter and Herman and not good news for the owners of Canto winning progeny and progeny of the progeny.



### **1978 Sieger Canto vom Arminius**

Up until that point Herman was skeptical and Walter unaccepting that Canto was a haemophiliac. Even after this report Herman said it was only when you 'inbred' on Canto that you would have a problem (Ref: Willis)! In the SV magazine of July 1980 there was a notice stating there were four known haemophiliacs reported. All traced back in female line to Canto v d Wienerau. Quoting Malcolm Willis from his book published 11 years later *"The German Shepherd Dog A Genetic History of the Breed"* – *Since the original four cases the SV appear to have reported no further cases and there is almost a wall of silence about implicating Canto v d Wienerau*".

Finally, just an explanation in relation to the use of the words *'increased gene frequency'* and *'style'*.

#### **Increased gene frequency:**

The genes that exist in the German Shepherd Dog today [excluding mutations which are rare] are the same genes that existed in 1900. The genes have not changed but because of specific selection and line breeding on particular dogs in Germany, the gene frequency and gene combinations have changed within the breed population to favor particular traits some of which are linked. This is reflected in the breed's changing phenotype.



## Style:

This is a word that is certainly not going to replace the commonly used term 'type'. It should but it won't. 'Style' is used in this response with the following explanation to it's meaning.

The word '*type*' is often used when a person really means '*style*,' when they are referring to an identifiable 'style of appearance' or 'working dog style characteristic' of a particular dog. The word 'type' in reference to a dog should refer specifically to the description of what defines a breed of dog and what makes that breed of dog different from every other breed, as can be found in that breed's written Standard. Type is the sum of the characteristics in their ideal form, distinguishing one breed of dog from another. Type can change over the years sometimes insidiously, and once type is lost the breed is lost.

When comparing dogs of the same breed, you look at 'type' first and foremost, and then you look for different 'styles' of dogs within that breed. The term 'style' refers to characteristics that are different in each dog that already has 'breed type'. There are a vast variety of 'style's existing in the German Shepherd Dog, the majority of which are the same 'type'. That is, they comply with the detailed description of a German Shepherd dog as described in the written standard and a standard that allows for scope and interpretation of its words in many areas.

Opinions on 'type' will vary from person to person and I refer here to 'type' not 'style'. Those opinions, or if you like those 'mind's eye image' of ideal type are based on two things:

- Observing winning dogs at shows and hearing / reading their critiques
- Reading the words contained within the standard

The standard has quantitative descriptions in it such as size and teeth but on the whole the words are open to interpretation. This is what makes the assessment of a dog subjective not objective.

How do you interpret the standard to establish your ideal 'type'?

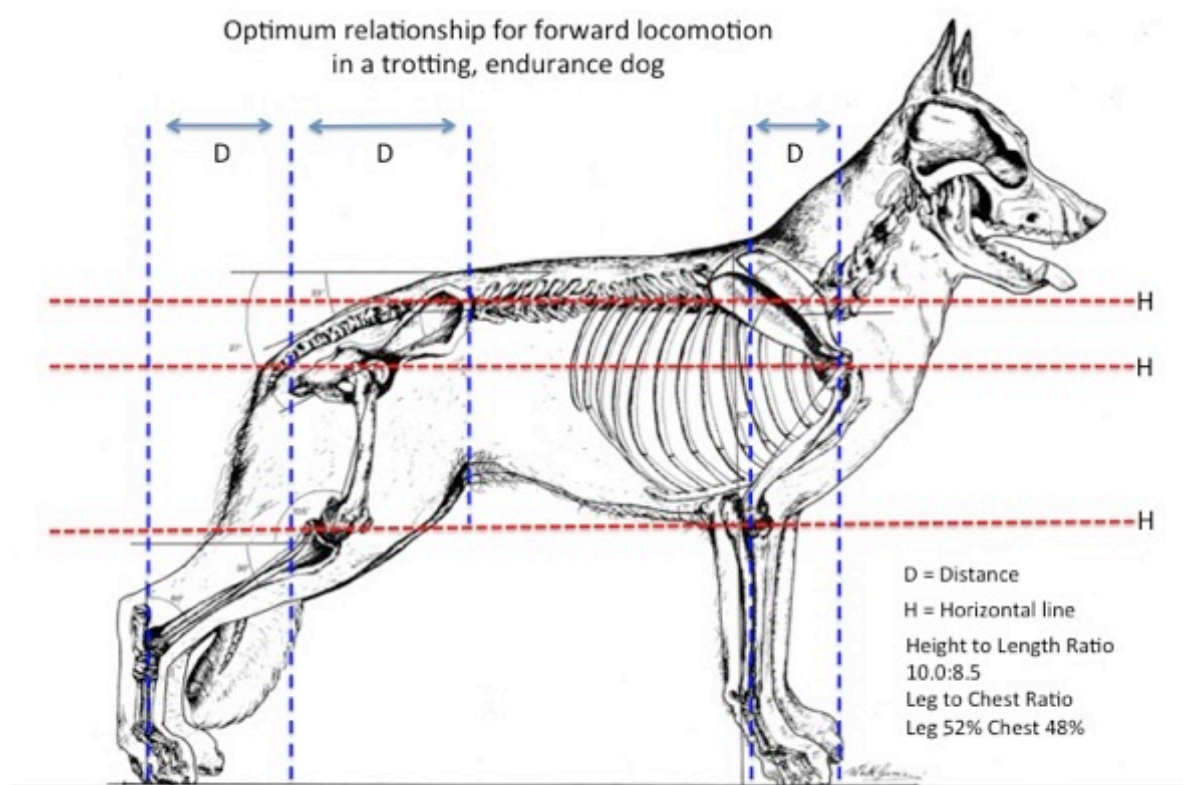
There is a fundamental skeletal framework within the German Shepherd Dog standard that applies to all working dog/trotting breeds where endurance is paramount. The important skeletal features and their relationships that are desirable in endurance trotters most of which is contained within the GSD Standard are as follows:

- The back between the withers and croup is level "when the dog is standing four square"
- The tail comes smoothly off the croup
- The length of leg below the chest is a little longer than the depth of chest

- The length of forechest to the end of the croup is longer than the height at the withers by 10% to 20%
- The elbow comes to the bottom of the chest
- The shoulder blade is laid back to about 30° off the vertical
- The shoulder blade and the upperarm are approximately equal in length
- The open angle between shoulder blade and upperarm is approximately 110° / 120°
- The upper and lower thigh bones are approximately equal in length
- The length and angle of bones in the forequarter are in balance with those of the hindquarter
- The hind leg bones (femur and tibia) are moderately angulated
- The body is not heavy in proportion to the dog's size
- Bones are medium in size/strength
- During the trot, the front foot is lifted off the ground no more than the height of the pastern joint when the dog is standing
- At full forward extension the front foot should not go past the dog's nose

This framework is built upon scientifically proven facts, based on engineering principles and they can be used to create a skeleton. That skeleton then establishes the framework for ideal 'type'. It establishes optimum proportions, ratios, and relationships of the skeleton that optimize movement and endurance in a working trotting dog. Features that are open to interpretation and personal preferences such as coat colour, hair length, eye colour, ear size and set, temperament, combative instinct, tail length, even skull size and proportions etc are then layered over that frame.

This is what that frame looks like. Note: The dog is standing four square. If the far side rear foot was brought forward so that the foot was directly under the pin bones the topline would show a slight slope, withers to croup.



The first two dogs seen here are both of good type but a different style and you can take this a step further as seen in the third dog.







Louis Donald  
February 2016