

# White markings

By Dan Buchwald

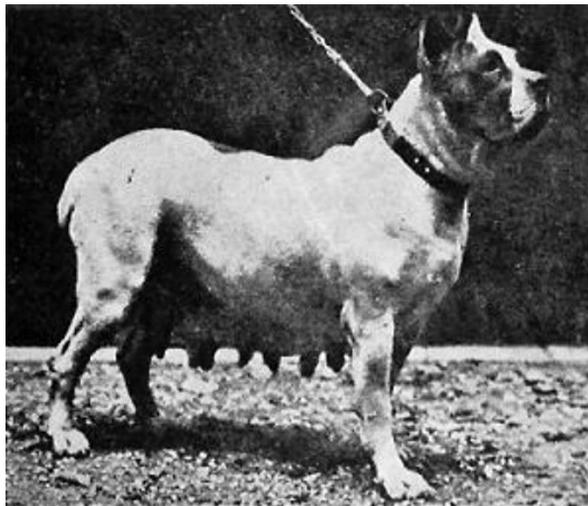
White markings have been a very popular yet controversial trait in the Boxer breed. Many favor those dogs with white chests, necks and legs along with the blaze on the face. At the same time, all white Boxers have been a “curse” that breeders have tried to avoid. They are the cause of huge frustration when they appear in big numbers in a litter.

It has been an integral part of the breed history the fact that white markings over a third of the total ground color are an unacceptable feature. The AKC standard calls it a disqualification and therefore such animals are not be allowed to compete in conformation rings.

## A HISTORIC VIEW

A quick overview of the history of the breed reveals that Boxers came from an extinct Mastiff-like breed called Brabant Bullenbeisser. Those dogs were originally solid fawns or brindles and, although not very agile, were used for hunting. In order to make them more fit for the job, crosses with the Bulldog ancestor were made and along with physical aptitude came other Bulldog traits such as the white and pied (also known as checks or parti-colors) coats.

This is how John Wagner explains the origins of the breed in his book “The Boxer” from 1950: “The literature and paintings previous to 1830 indicate that all Bullenbeisser up to that time were fawn or brindle with black masks. There is never any mention of white. About this time there came a great influx of English dogs to Germany including the English Bulldog. His entry into the country quickly followed by numerous crosses with the Bullenbeisser, resulted in an eventual similarity of type that made it very difficult to distinguish where any degree of Bulldog blood was present except that white color began to appear in the Boxers.”



**META VON DER PASSAGE** born Nov. 2<sup>nd</sup>, 1898

Still from Wagner's book: "Meta von der Passage played the most important role of the five original ancestors. Our great line of sires all trace directly back to this female. She was a substantially built, low to the ground, brindle and white parti-color, lacking in underjaw and exceedingly lippy. As a producing bitch few in any breed can match her record. She consistently whelped puppies of marvelous type and rare quality. Those of her offspring sired by Flock St. Salvator and Wotan dominate all present-day pedigrees. Combined with Wotan and Mirzl children, they made the Boxer."

So as much as the ancestral stock of the breed was fawn or brindle with black masks, the original foundation stock was totally "contaminated" with white or parti-colored dogs. Meta, the grand dame of the breed, was a mostly white parti-colored bitch and both her parents were predominantly white.

The first standard of the breed from The German Boxer Club of January 14, 1902 stated: "White, while not sought after as a basic color, is permissible" and "Color is of least importance, even if the basic color is white, although in animals of equal qualifications the one with the least white would be preferred."

It's believed that since early on, when Boxers became working/guard dogs, that white color became an undesirable trait because it made the dog too visible and therefore easy target in police and war-dog duties.

In America, the Boxer standard approved by AKC April 12, 1938 stated: "**Disqualifications** - Boxers with white or black ground color, or entirely white or black or any other color than fawn or brindle. (White markings are allowed but not exceed more than one third (1/3) of the ground color.)".

Although worded slightly differently, those same ideas remain until today in the standard. Boxer standard approved by AKC February 11, 2005: "**Disqualifications** – Boxers that are any color other than fawn or brindle. Boxers with a total of white markings exceeding one-third of the entire coat."

The concept of white markings over one third of the ground color being frowned upon is also present in the English standard and the FCI version. Basically, it's a point that is requested worldwide although not necessarily as a disqualification.

## A GENETIC VIEW

As seen above, Boxers come originally from fawn or brindle ancestors and later on Bulldogs were introduced and with that, the patterns of all-white and white with patches also referred to as pies, piebalds, checks or parti-colors.

It is reasonable to conclude that after many generations of selective breeding the parti-colored version was eliminated from the gene pool and breeders now observe the existence of three alternatives of marking patterns in their litters:

- **Solids:** dogs with very little or almost no white markings (also referred to as plains or classics)  
Note: I do not like the term "classic" to refer to this color pattern because that same word is widely used to describe a dog of true breed type as opposed to passing trends and fashions that every-so-often deviate from the "classic breed type". I also dislike to the term "plain" as it suggests less value which is absolutely not the case. Solid is a more proper term for these dogs, in my view.

- **Flashy:** dogs with white markings on the muzzle, feet and legs, chest and underbelly, with or without markings on the neck (this pattern is also referred to as Irish pattern and is commonly seen in Boston Terriers and Basenjis among other breeds).
- **Whites:** dogs totally white or predominantly of white color with small patches of color (fawn or brindle) mostly on the eyes or ears.

The gene that determines the above traits is located in the “S” series. In many breeds “S” (solid) is dominant over “s” (Irish pattern) which is dominant over “s<sup>p</sup>” (pied) which is dominant over “s<sup>w</sup>” (white). That would be true for many breeds but NOT for Boxers.

The pattern of white markings in Boxers is not determined by a dominant/recessive mode. Instead it is a case of co-dominance.

Co-dominance is a relationship between two versions of a gene. Individuals receive one version of a gene, called an allele, from each parent. If the alleles are different, the dominant allele usually will be expressed, while the effect of the other allele, called recessive, is masked. In codominance, however, neither allele is recessive and the effects of both alleles are expressed.

In Boxers there are two possible versions (alleles) of markings, the solid and the white. When one parent sends an allele for “solid” and the other sends one for “white”, the resulting pattern is what we call “flashy”.

Flashy Boxers come with different amounts of white markings. That is determined by plus or minus modifiers that cause more or less background color (fawn or brindle) to appear. The same modifiers may cause solid dogs to have a bit more white on their chests, toes and top of the muzzle. Likewise, they may cause the presence of a patch or two on white Boxers.

The pied/parti-color pattern is virtually extinct from the purebred Boxer genetic makeup.

Here are the statistical possibilities of breedings and offspring:

Solid x Solid = 100% Solid puppies

Solid x Flashy = 50% Solid, 50% Flashy

Flashy x Flashy = 25% Solid, 50% Flashy, 25% White

Flashy x White = 50% Flashy, 50% White

Solid x White = 100% Flashy

White x White = 100% White

## **AN ETHICAL VIEW**

For decades, the American Boxer club considered the white Boxer a pariah in the breed. There was a time when culling (killing) whites was the standard procedure. More recently they were “allowed” to live but not be sold for profit – the price should only cover your expenses – but still should not be registered or bred with.

The current Code of Ethics of the American Boxer Club states:

1. *“Limited registration:*

*American Boxer Club Members are encouraged to provide limited registration for the following:*

- a. Boxers being purchased only as registered companion pets.*
- b. Boxers that are not considered sound, or not of breeding quality, including monorchids.*
- c. Boxers of any color not allowed by the standard. Such a Boxer will be placed on a contract, to be signed and a copy retained by all parties, that includes the following provisions:*
  - i. Limited registration will be provided upon completion of a spay/neuter.*
  - ii. The new owner will give the breeder a deposit to cover the amount of spay/neuter. This deposit will be returned upon presentation of a certification from a veterinarian that the procedure has taken place.*
  - iii. The breeder may charge veterinary expenses directly related to the puppy.”*

In other words, currently it is unethical to give full registration to white Boxers, breed with them or sell them for any amount above veterinary expenses.

It is widely known that there is a certain favoritism towards Flashy Boxers. As much as many breeders correctly insist in the recognition of value of Solid Boxers the vast majority being shown, particularly in the “specials” class is Flashy.

As shown above though, the white allele is absolutely necessary to produce flashy Boxers.

I would like to highlight the fact that with the White color also comes a higher incidence of deafness due to lack of pigment in specialized cells of the inner ear which transform sound waves into electric impulses recognizable by the brain, rendering them ineffective.

If whites are such an undesirable color should one assume that purposely producing them is wrong and maybe unethical – producing a higher percentage of potentially deaf puppies is for sure a side effect of flashy to flashy breedings - the breeding of flashy to flashy will in average produce 25% whites. Diligently removing whites from the breeding program for several generations have not and could not prevent them from occurring in future litters yet we keep doing so because we are told we must without even thinking how come the outcome haven't changed.

I know the ideas I'm about to present may be highly controversial and tend to trigger passionate arguments. Please keep an open mind, leave taboos aside for a minute and ponder on this.

Here is the Boxer breeders' paradox: we don't want whites, we want flashy! However, without the genetic allele for whites there will be no flashy.

One could argue that since whites are being born at the same rates as ever, **if all other issues are clear - that is: health, temperament and conformation** - breeding a white to a solid may not be unethical at all,

It will produce a litter of 100% flashy puppies that should very likely be of great beauty and great health. If the parents in question are specifically clear in DM, SAS and ARVC, wouldn't that breeding be a far more ethical and desirable than parents say, two flashy parents with less health clearances?

Please note, I am not preaching breeding necessarily with whites, I'm simply pointing out that they continue to be born and there are cases where the white sibling is the pick of the litter and the healthiest of the bunch. Discarding such individual may not be wisest course of action. What we've been doing as far as goals and "rationale" to reach such goals may need revisiting and some serious rethinking.

Many smart breeders are favoring the breedings of Solid to Flashy in order to still obtain an average of 50% Flashy offspring - which is the same average produced in Flashy x Flashy breedings - while preventing whites in their litters.

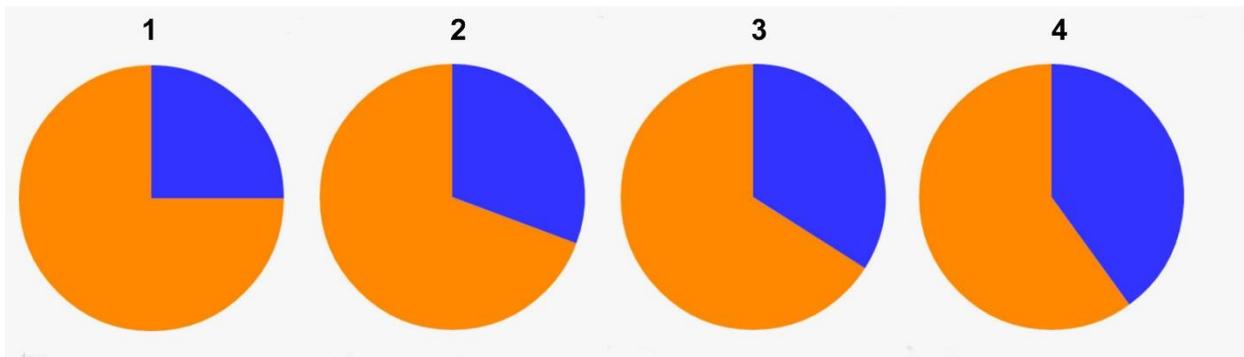
## **A PRACTICAL VIEW**

So now that we have a better understanding of where the Boxer markings came from and how they are inherited, here comes the part of attempting to put this knowledge in conformity with the requirements of the standard.

A few years ago, I saw a very high profile judge of great repute and knowledge judge a Boxer with lots flashy markings, muzzle, full collar, socks up to elbows and hocks. Many would argue it was over a third white. The judge asked the handler to raise the front legs of the dog in order to show the underbelly and by doing so the handler, holding the dog by the front feet, caused the front legs to be far apart from each other therefore stretching the skin of the chest causing an increase of white area. You could see the conundrum this judge was under. The standard says "disqualify" over one third. How to be 100% sure in order to be fair? If stretching the skin in white areas is acceptable than shouldn't the same be done in the non-white areas? Eventually, the judge decided to not DQ the dog but also not to place him in the class...

For something of such high importance as a disqualification there should be no margin of error, it should be clear cut such as height, weight, absence of a given number of teeth to name a few. You'll never hear Doberman people say "I think this dog has five missing teeth" and another reply "no, in my opinion this dog only has 3 missing teeth". That just does not happen, if you can count teeth you know how many are missing, if any. Same with just about any other disqualification in other breeds – except in Boxers!

Recently, I tried a simple experiment on Facebook. I presented 4 pie charts with different amounts of blue to orange proportions and asked to my FB friends to DQ the charts that in their view where over 1/3. The results were amazing. Very few agreed with each other and many were way off.



My conclusion was that if people cannot agree 100% on which simple pie charts to disqualify what should we expect from a live dog whose shape and form is far more elaborate and complicated than a basic circle.

Furthermore, if excess of white markings make a Boxer worthy of being disqualified, and knowing that typically those dogs have white necks and solid colored loins, this concept may force a judge to reward a dog with very short (white) neck and very long (solid) loin over a properly built flashy dog! That possibility would be an insult to breed type. What if the ears and tail were present? Shouldn't that factor in? Could that prevent a borderline dog from being kicked out the ring?

So how to go about it? It's been almost a century that this DQ have been in place. The Bullenbeissers are extinct, the parti-colored Boxers are gone from the gene pool but this part of the standard has not evolved to guide judges into feasible disqualifications.

The Kennel Club in England has no breed specific disqualifications, yet they have managed to breed and preserve the Boxer perfectly well without our DQ.



Since it is impossible to properly and accurately measure the amount of white markings against the ground color, I propose that our standard do away with that disqualification requirement just like it's done in the UK. Its purpose of removing reminiscences of the parti-colored Bulldog breedings, has long been achieved.

There are however areas where white should certainly not be present in order to keep those modifying factors under control, such as white markings over the eyes, ears, white over the back or torso to mention a few. A wider debate with breed history and inheritance of coat color in mind is needed in order to produce a newer standard in this aspect that is a more efficient tool to promote the betterment of the breed while preserving breed type.

There are parts of the standard that should be clear and objective leaving no room for interpretation or guessing. Disqualifications are certainly one of those.

#### About the author:



Dan Buchwald is a graduate of the School of Veterinary Medicine, University of Sao Paulo, Brazil. Along with his mother Agnes Buchwald and family, he founded the internationally famed Hexastar Kennels in 1973. Over 150 Boxer champions have been finished under the Hexastar banner. Of those, more than twenty attained International FCI championships and six others American AKC championships. Dan obtained his Brazilian Kennel Club's all-breeds judge's license in 1988; the youngest ever at that time to attain those credentials. His assignments have taken him all over South America and into the United States. In '89 at the Kennel Review's Invitational Tournament of Champions; in '91, he judged at the New Jersey Boxer Club (dogs and intersex competition), So. New York Beagle Club at Westchester K.C., Trenton K.C. (Toy Group), Sussex Hills K.C. (Sporting Group), and the New Brunswick K.C. (Herding Group). He has also judged numerous sweepstakes, as well as the Futurity at the American Boxer Club twice.

Since moving to America over 20 years ago, Dan has pursued a successful career in professional handling and started selectively breeding Boxers while mentoring other co-owners under the Avalon kennel name. Even though retired from actively breeding, Dan takes huge pride of being the breeder of the first ever Boxer to go WB/BOW from the BBE class at the American Boxer Club National.

Dan is the author and illustrator of The Boxer Blueprint. He is an award-winning sculptor and is the illustrator for The Brazilian Kennel Club Official Book of Standards and the Brazilian Kennel Club Conformation Book for Judges. As a speaker, he has presented seminars to the Connecticut Dog Judges Association, Princeton Dog Judges Association, New Jersey Boxer Club, Sacramento Valley Boxer Club and in the UK to the Cotswold Boxer Club and Whales Boxer Club. He has been a repeated guest speaker at several judges and breeders seminars at the American Boxer Club Nationals and other parent clubs abroad. He is the author of many articles in the late Boxer Review, Dog News and Showsight, Canine Chronicle as well as several dog magazines abroad.

