

TRAPE

The Evolution of modern show jumping Horses

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1. Introduction

1.1 My personal interest and motivation

I have always been interested in horses, having been introduced to the animals at an early age by my showjumper-breeding grandparents. I started riding at the age of four and continued doing so until now. So far, I have had the incredible experiences of riding in Germany, China, and America. Having always wanted to jump, I started competing in hunter/jumper classes at the age of eight. Now, I am fortunate to be able to pursue my passion in showjumping by training, learning, and jumping with horses bred by my grandparents and with my youngster.

The athletic horses of the sport are usually of complex breeding. They are results of ancient strains that slowly evolved, by the selective breeding of humans to the mental and physical conformation they have today ideal for the sport. Upon seeing foal's potentials being evaluated by the talent in their pedigrees and the immense thought that breeders put into their pairings I wanted to delve deeper and grasp the true details of how they evolved. In hopes, to soon understand the fine detail of modern-day showjumping horses in action and how each piece of their pedigrees has reflected on their athletic ability today.

As I envision a future of working with and in the showjumping sport and its animals, I hope this work will be personally beneficial for the rest of my career.

1.2 My TRAPE's goal

In summary, in my TRAPE: the Evolution of modern Showjumping Horses, I wish to (as the title states) understand the evolution of the various, athletic, high-performing, and beautiful breeds of the showjumping sport. I would like to be able to trace six of the most successful and athletic showjumping horse breeds back to their genetic origin. Embarking on a 700-year journey of selective breeding, dedicated to creating the horses of ideal conformation and level-headedness to succeed in our modern-day sport.

2. Show jumping Sport

2.1 What is show jumping?



Show jumping is an English horse-riding discipline and sport presented up to Olympic level. The horses and riders need to overcome a course of obstacles as quickly as possible without any time penalties or faults when poles are knocked (though there are diverse types of classes in which speed is not the main grading factor). I elaborate more on this topic in my seventh grade Paper on Showjumping in general (“Springreiten und was dahinter steckt”)

2.2 Show jumping sport history

Horse and rider have been jumping natural obstacles for a long time, either to reach war destinations or for hunting purposes. It was only in the 1700's that the sport began to become popular as Great Britain passed a law forcing people to fence off their private land. Soon riders/hunters had to start jumping over these fences to reach their prey.

There are not many documents that tell us about early show jumping, but the oldest one dates back to 1788, when show jumping is mentioned for the first time in a French horseman's manual.



Madison Square Garden

In 1865-1866, we are informed about the first tournaments in Rome and Paris. However, these still looked quite different from today. The jumping still took place in cross country terrain. Only later the couples jumped in smaller arenas or on sandy tracks as this gave the audience a better overview of the entertainment below. In 1876, a tournament was held in London for the first time and shortly after, in 1883, the first national tournament, Madison Square Garden, was held in the USA. In 1900, show jumping was introduced in the Olympics and seven years later in the first international tournament in London. From 1917 onwards, increased federations were created, including the FEI and the American Horse Show Association. The show jumping regulations continue to be reviewed and rewritten.

In 1920 Frederico Caprilli invented the show jumping position, which gives the horse and rider optimal balance over the jump. Nowadays the sport is still famous and popular.

3. Horse racing sport

3.1 What is horse racing?



Horse racing

Horse racing is an equestrian performance sport and one of the oldest known to humankind. It usually involves two or more jockeys and their horses (mainly English thoroughbreds) who race over a set, flat (sometimes with hurdles) distance for a primitive competition of speed and stamina. The audience bids on the horse and rider combination they believe will be the ones to finish first. Flat races are a maximum of two miles and six furlongs.

3.2 Horse racing history

The horse racing of horse racing dates back to the Greek Olympic games (700-40 BCE) in which both chariot and bareback races were held. Horse racing is also known to have been enjoyed as well-organized public entertainment in the roman empire. Racing in ancient civilizations (using Arabians and Turkoman horses) is not well established (as of entertainment purposes-the horses were mostly used for warfare).

Racing in medieval England is known to have been used as a means of competitively displaying the speed of horses to potential buyers. They were ridden by professional jockeys.



Horse racing during the reign of Charles II 1844

Around 1885, the first known racing purse was offered. A total of forty pound for a 4,8 km race. In the 16th century, Henry VII established several racehorse studs by importing Spanish and Italian horses (presumably Turkoman horses/Barbs). In the 17th century, Charles I is known to have had a stud of 139 horses when he died. Charles II (known as “the father of English turf”)

inaugurated the King’s Plate races, who is racing rules became the first national

rules of its type. The horses were raced at the age of six and were allowed to carry 76 kg. England became the headquarters of English thoroughbred racing.

Racing also became popular in France around 1651 where the first wager was held between two noble people. Louis XVI later organized a jockey club and established racing rules of royal decree which included requiring certificates of the origin of horses and imposing extra weights on foreign horses.

Horse racing continued developing and gaining popularity until the 21st century when it is favor slowly began declining.

[4. The six featured modern day show jumping horse breeds](#)

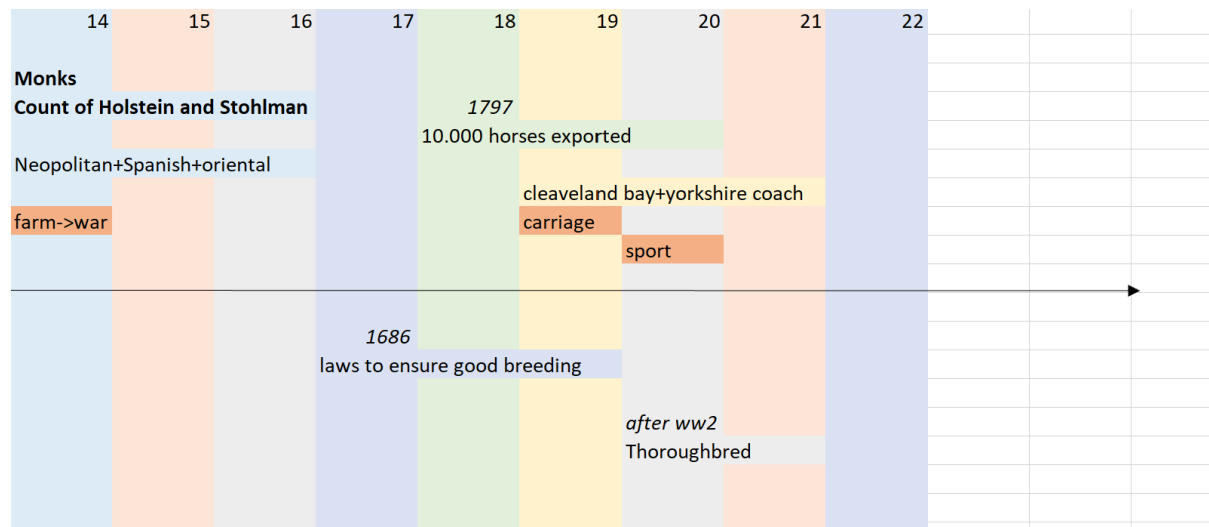
[4.1 How to read this chapter](#)

In this chapter, I will present six of the most athletically prevailing, influential breeds of the modern day show jumping sport, by presenting a timeline I created for each horse. The timelines will portray the evolution of the breed at eye's glance. I will also provide a portrait for each breed in which, I will go into further detail of each event (featured on the at glance timeline) and explain the trademark characteristics of the breed.

From here on out, we will be able to observe the different examples of breeds which took the English thoroughbred base and mixed them with local cold-blooded stocks to later create the most prevalent modern showjumping horses of our time.

4.2 Holsteiner

4.2.1 Timeline



4.2.2 Portrait

The Holsteiner or Holstein horse has been selectively bred in the northernmost province of Germany, Schleswig-Holstein, since the thirteenth century. "The Holsteiner is one of Germany's oldest breeds of warmblood." ("HOLSTEINER - International Museum of the Horse"). It can be traced back to an ancestry of Neapolitan, Spanish and Oriental foundation stock that was carefully crossed with the native stock of the region. German farmers valued it for its strength, steadiness and reliability, and the military for its courage and ability.

The first written records of Holsteiner horse breeding date back to the thirteenth century when the Count of Holstein and Stohlman granted grazing rights to the monastery at Uetersen on privately-owned land around the cloister. The monks continued to breed and refine the horses until the time of the Reformation when the properties of the monasteries were transferred to private landowners. Realizing the importance of these horses, the landowners continued the work begun by the monks.

In 1686 laws were passed in Schleswig-Holstein to insure the quality of the breed and incentives were often offered to encourage good breeding. The seventeenth and eighteenth century increased the popularity of the Holsteiner breed as it grew significantly throughout Europe. Over 10,000 horses were exported in the year 1797.

In the 19th century, British Yorkshire Coach horses and Cleveland Bay stallions were



Meteor, famous Holsteiner showjumping horse with 150 wins in his life time (1950s-60s)

used in the to produce a fine, high-stepping carriage horse. After World War II, Thoroughbred blood was introduced to the breed which added refinement and jumping ability to the unique character of the Holsteiner. The breed has emerged as one of the great German sporting horses. Though the German Holsteiner is one of the smallest studbooks in Europe with about 6% of the equine population, the

Holsteiner can be found finishing at the top of the standings in most international competitions including both the Olympic Games and World Championships.

Traditionally, the Holsteiner has been prevalently grey and bay with a preference for no or few white markings. The Horse typically matures between 16 and 17 hands. A lovely head with clever eyes is carried on a nicely arched neck, rising upward out of its withers, producing ideal lightness and self-carriage. Their temperament is relaxed and willing, with good character and an eagerness for work.

The quality of breeding stock is ensured through the annual Breeding Stock Inspections or Keurings. Horses are evaluated and graded according to quality and to their potential for adding to the breeding pool. For stallions, inspection prior to entry into the studbook is only the first step before becoming a fully approved stallion. The stallion is expected to demonstrate his athleticism through either a 100-day test or through sport. His offspring are also inspected for quality and genetic defects. Only then is he granted a lifetime breeding license. Mares are also inspected and if of sufficient quality are entered into one of three studbooks.

The American Holsteiner Horse Association was established in 1977 to promote and support the enjoyment and breeding of the Holsteiner Warmblood horse in North America and is the registry and studbook for Holsteiners in North America. Their goal is to develop the Holsteiner into the world's most successful sport horse.

The Holsteiner Registry in North America also insures the breeding quality through mare and stallion inspections and strict conformance to its stated breeding policies. The Association is committed to adhering as closely as possible to the selective breeding standards practiced since the 13th century by the Holsteiner horse breeders of Schleswig-Holstein, given obvious geographic and administrative differences. As an independent Association, it has a strong working relationship with the German

Holsteiner Verband. It stays abreast of current trends and new developments in equine science, business, and equestrian disciplines, while remaining sensitive to the needs of the horse community.

4.3 Trakehner

4.3.1 Timeline



4.3.2 Portrait

The Trakehner horse is one of the oldest breeds known to mankind. The modern horses possess an elegant and refined head featuring eyes that are large and expressive and a long neck crested into a back that is straight and short. The forehand features a deep chest. All legs are muscular with broad, clean joints ending in typically solid hooves. They are most commonly bay, grey, black, or chestnut. The Trakehner matures at around 15-16 hands and is known for its willingness to work, calm, and friendly temperament. The horse's "ideal conformation consists of a medium long neck that tapers towards the head; freedom in the throat latch; a large, sloping shoulder; well defined withers that extend far into the back; strong and balanced back; a long, slightly sloping, powerfully muscled croup; as well as a harmonious division of the body into forehand, mid-section and hindquarters. The limbs should be proportional to the body with correct, large joints; medium long pasterns; and well-shaped hooves" (<https://www.equinewelfaresociety.org/>).

In the early 18th century King Friedrich Wilhelm began selectively breeding towards an ideal warfare cavalry mount as his war tactics switched. The mount needed to be sound and brave enough to withstand harsh environments and

ideally, fast and light to travel long distances, but attractive enough to represent the royal cavalry. He moved his best horses to a stud farm he founded in Trakehnen in 1732.

The stud consisted of luxurious 15.000 acres. The famous foundational mares of the Trakehner breed were kept in about 16 stables or compounds on the property. They bred depending on coat color. The black mares were of most substance, balancing the otherwise strongly refined breed and giving them their “hardworking” trait. They were collected in one compound and crossed with their own set of stallions. The heavier genes of this strain can still be observed in the descendant horses today. Bay mares were known for their temperament and excellent rideability and were collected in yet another compound. The chestnut mares’ herd exhibited the most potential in jumping, fox hunting, driving, and dressage. They were known for their finesse, elegance, and sensibility. Their compound was located nearest to the center of Trakehnen. The very best, noble descendants of these mares (backed and tested for potential at around 3 years of age) contributed to the prestigious gene pool. The military mixed herds (where horses of every color came together) were bred to selected arabian stallions, these were also collected at their own compounds. The east Prussian farmer’s mare stock and the military’s stock mixed, bred to keep only the very best traits. Mare and stallion names of this stud farm are still prominent today as part of the great evolution of the Trakehner horse.

The Trakehner horses were east Prussia’s greatest source of riding and working horses. They were the most successful sport horse in the world between the two World Wars. Olympic gold in dressage went to Piccolomini in 1924, and the silver medal went to Sabel. In 1936, the dressage gold medal was won by the 7-year old Kronos, the gold medal in eventing was won by the Trakehner **Nurmi** and the winning German eventing team was made up of two Trakehners and one Thoroughbred. The East Prussian warmblood horse was exported not only to Europe but all over the world. In 1938 some 478.000 horses lived in East Prussia with 1.289 stallions covering 89.628 East Prussian mares. Trakehners were used for all purposes: hard-working farm horses in the fields, courageous and sound cavalry mounts, for fox hunting, driving, jumping and last but not least for horse

racing. Between 1921 and 1936, the hardest steeplechase in the world, the Pardubice steeplechase, was won 9 times by East Prussian horses.

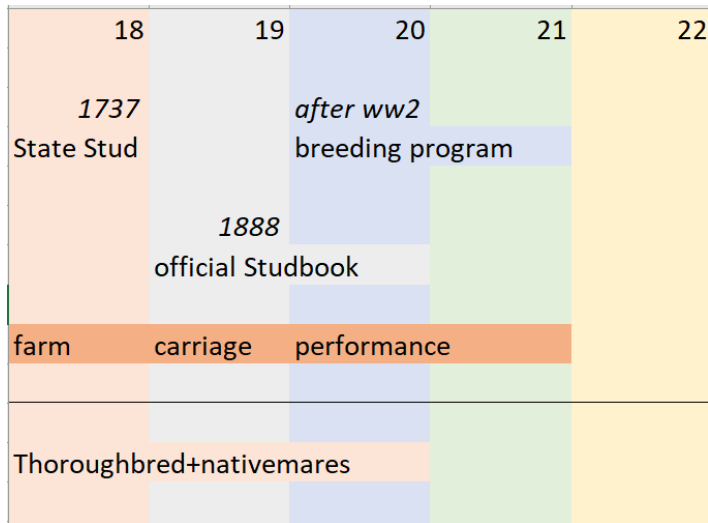
During World War I, the population of the Trakehner horse was halved and it took great efforts of the breeders to bring the breed back to its former numbers and famous standard of quality. But in 1944, in the closing days of WWII, it seemed these heroic efforts would have been in vain. In the harsh winter, as the Russian Army broke across the front lines and invaded East Prussia, people were forced to leave their land and belongings behind to save not much more than their lives. In October 1944 it was decided to evacuate the main stud Trakehnen. A total of 800 of the best mares, stallions and young colts were loaded on trains and driven to the West. Most of these horses were lost to the Russians. The royal stud farm was laid to waste and only the strongest, 21 original main stud mares survived having reached the west.

Of the 1.100 once beautiful and proud horses from the main stud Trakehnen, only some 100 individuals survived, many with tremendous injuries. Additionally, the East Prussian horses that belonged to the private breeders and had made the trek, were scattered all over Germany. The following years were spent trying to relocate and collect and catalog these few Trakehners. In October 1947, the "West German Association of Breeders and Friends of the Warmblood Horse of Trakehner Origin", today known as the "Trakehner Verband", was established, replacing the East Prussian Stud Book Society. Together with the Trakehner horses of private breeders from East Prussia, a few hundred Trakehners were available for rebuilding the breed. Dietrich von Lenski, who originated from one of the large East Prussian farms founded the TSF (Trakehner Foerderverein) in 1995. They sponsored Trakehner talents by entering them into international sport by providing them to international and successful riders.

Today, they have reflowered and belong to the most successful showjumping, dressage, and driving sport breeds.

4.4 Hanoverian

4.4.1 Timeline



4.4.2 Portrait

The Hanoverian horse is debatably one of the most well-known sport horse momentarily. The breed largely owes its existence to the Hanoverian selector, former British King: George II who established the state stud in Celle in 1735. He had founded the stud mainly in hopes of agricultural and later carriage horses and bred the more drafty mares of Celle to thoroughbreds.

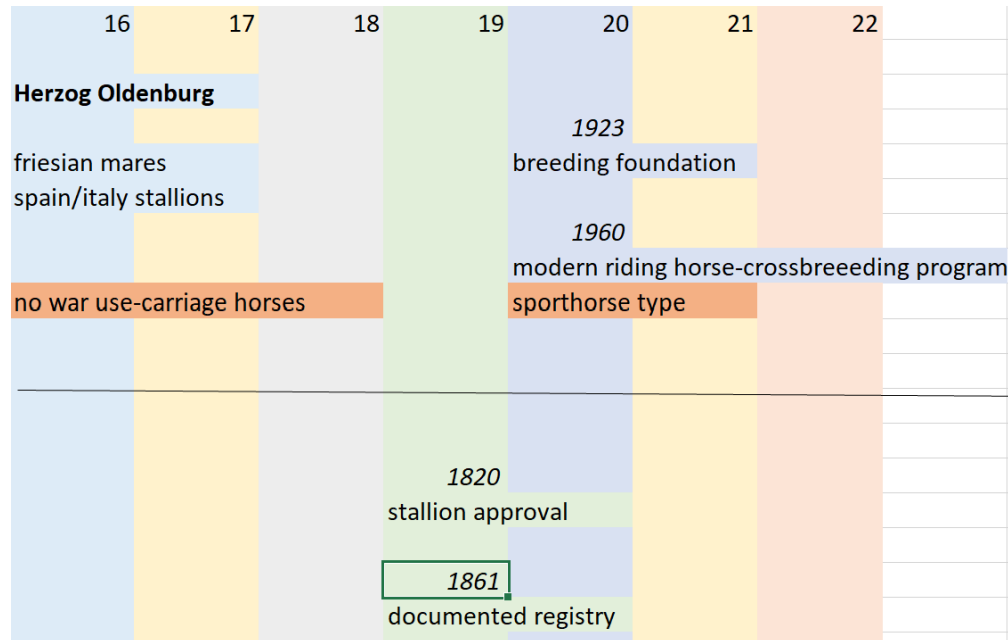
In 1888 the official studbook originated. After the second world war the demand for sport/performance horses rose which led the breed to be lightened by more Thoroughbred and Trakehner blood.

Now the horses are mainly bred and developed in Germany. The Hanoverian Verband in Germany was founded in 1922 by 54 unified local breeding clubs and now holds over 10.560 breeders. The Verband creates breeding guidelines, classification processes and is responsible for the sales of elite sporthorses. They play an instrumental role in the promoting and supported development of the Hanoverian breed. The daughter society- Hanoverian Horse Society of Australia was founded in 1993. It played a role in globalizing the breed. Of the 100 licensed Hanoverian stallions, 15 reside in Australia. The Society's classifiers are trained in Germany and receive competition sponsorship from the Verband. Their objectives are to protect the integrity of, to assist the aims of, and to represent the Hanoverian Verband of Verden, Germany within Australia.

The Hanoverian horse stands at around 15 to 18 hands. It is known to be slender but robust, with a strong back, brawny shoulders and a broad chest. Its head is clearly outlined and its ears small. They are mostly found in the colors: bay, chestnut, black, and grey. They are bred to be intelligent, determined, level-headed, and disciplined.

4.5 Oldenburger

4.5.1 Timeline



4.5.2 Portrait

The Oldenburger can be traced back to the 17th Century, when Herzog Johan XVI of Oldenburg took interest in breeding an elegant war horse to gift to war heroes or other noblemen. In the German provinces of Oldenburg and East Friesland he crossed the Barb, Neapolitan, Turk, and Fredericksburg stallions with local Friesian mares. His successor, Anton Guenther von Oldenburg (renowned dressage rider) is known as the founder of the breed. He continued the lines and made them accessible to other common folk. This increased the demand and popularity of the horse in all of Europe. They were however not used for wars, but mostly as elegant carriage horses, despite their competence for agricultural or ridden work. This spared them of being used as artillery horses in the World Wars.

The first stallion approval was in 1820 and the first documented registry in 1861. The Oldenburger Verbands was founded shortly afterwards in 1923. When the

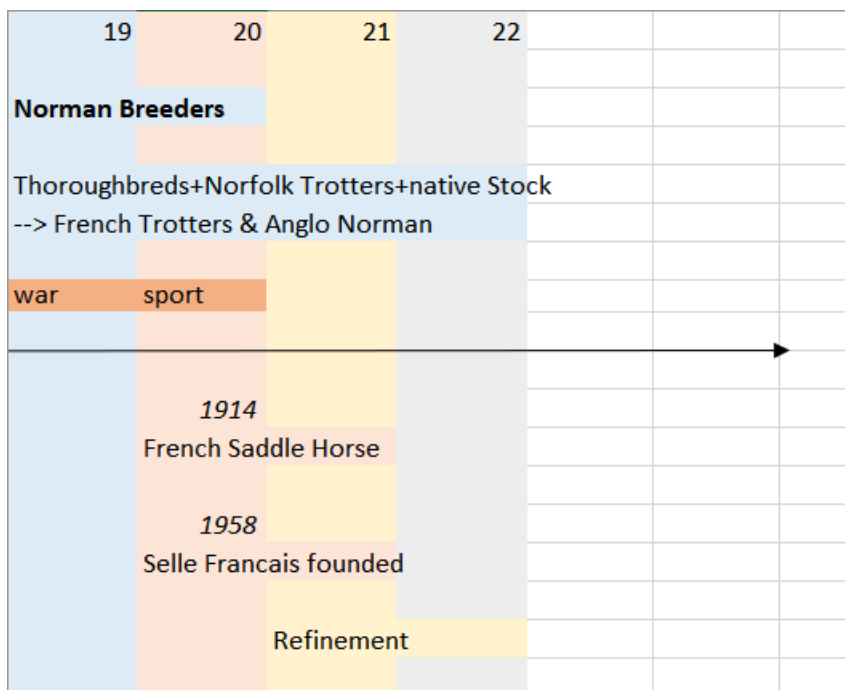
automobile began replacing carriages in the 1960s the Oldenburgers were crossbred with Thoroughbreds to refine them into riding horses.

Modern day Oldenburg horses, are successful and bred to be mainly dressage and jumping horses. They are the most inbred horses of the six featured show jumping horse breeds. This increases their susceptibility for genetic disorders or diseases, there is not much information to be found regarding this from the Oldenburger Verband.

The horses typically stand at 15 to 18 hands. Their bodies are evenly proportioned, tall, and robust. They show a slightly sloped pelvis, long neck and expressive head.

4.6 Selle Francais

4.6.1 Timeline



4.6.2 Portrait

The Selle Francais is a combination of many different breeds, which gives its character and conformation many variations, there is no “standard model” of the Selle Francais or French Saddle horse. Since the 19th century, demi-sang (prototypes of the Selle Francais) can be found all over France. They were created by crossing native mares with complex bloodlines dating back to the early 1000s

with Norfolk trotters to become military and carriage horses. The famous French Trotter and Anglo Norman horses are based off of this breeding trend.

The Selle Francais was first used for war purposes. Later, to accommodate the Industrial Revolution, horse breeds such as the Anglo Norman, Charolais, Vendeen, and diverse other saddle horses merged und the Selle Francais name- so the breed was born. As its popularity increased , the breed was refined, to become one of the most successful breeds in showjumping sport.

The Selle Francais is known for its eagerness, elegance, patience, and almost dog-like disposition (making it very trainable). Bay and grey coat colorations such as white markings on the legs are very common. Their head is rather broad and back straight, with strong hindquarters and pronounced leg joints.

4.7 KPWN

4.7.1 Timeline



4.7.2 Portrait

The KPWN, short for Koninklijk Warmbloed Paard Nederland or Netherland Warmblood horse is one of the youngest, sport warmblood breeds. The breed can be traced back to the early 20th century as agriculture and later carriage horses, mainly bred in the Gelder province. They were a mixture of the native Gelder horses, refined with the Thoroughbred, Hackney, and Yorkshire Coach horses. After the second world war, as the demand for sport horses increased, the Groningen and more Thoroughbred blood was used to refine the horses. Around this time the breed was reformed into four categories, as some breeders were uninterested in the Sporthorse type, but would rather preserve the Gelderland

horse. The breeding directions consisted of the showjumping specific, dressage specific, wagon horses, and preserved Gelderland foals.

The KPWN stands at 15 to 16 hands and is typically bay or chestnut. They are brave and friendly and are known for their impressive movements, expressive eyes, and stable conformation.

5 Horse(breed) Types

There are three main Horse types: the hot blood, the warm blood, and the cold blood. They are generally differentiated by their temperament and their conformation (not their blood temperatures). Each horse breed can be classified into one of these horse types. Horse types are an essential part of my TraPe, because the cold- and hot bloods played a key role in creating the modern-day warmbloods, whom I concentrate on.

5.1 Hot blood

Hot-blooded horses are the smallest horse category of the big three, mostly used for their speed and stamina. They have a 'light' build, dainty-seeming features, and are generally prized for their fine and glistening coats. Their bodies are admirably adapted to the warm (desert-like) climate they originate from. They can manage extreme heat due to their well-developed cooling system; they are also built to travel long distances in search of food or shelter, ideal for modern day endurance riding. The most well-known horse breeds in this category are the Arabians (the most influential horse breed in this category), Barbs, English Thoroughbreds, and Akhal-Tekes (known to be the purest and closest relative to the Turkoman horse). Hotblooded horses are typically sharp-witted and loyal. As they were treasured by the early nomadic tribes, invited into their homes, and treated like family, they have had the most exposure to humans.



Akhal-Teke



Arabian horse

5.2 Warmblood

The warmblood category of horse breeds refers to a majority of middle weighted horses including continental sport horses. Warmbloods are a cross between Hot- and Cold blood which were originally obtained by breeding for a higher stepping, more agile carriage horse and eventually cavalry horse. They have an athletic



conformation and a compromise of the two other categories' temperaments: calm but sharp-witted and reactive. Some of the most popular warmblood horse breeds include: the Holsteiner, Oldenburger, Trakehner, Belgian- and Dutch warmbloods. Almost all of which rule the equine Olympian games.

5.3 Cold blood

Coldblooded horses are heavy horses, with large heavy muscles, large heads, and often feathers. They were originally used for farming work, carriage pulling, and wood hauling. This horse type originates from colder, northern Europe. They have thick fur and rather massive, burly builds, helping them endure cold winters. Coldblooded horses are known for their quiet, calm, placid, kind, and sometimes stubborn temperaments. Some of the most popular/known breeds include: the Ardennes horse, Clydesdale horse, and the Shire horse (the largest horse breed in the world). The so-called draft horses are still used today in wood-hauling, carriage pulling (for dedicated events), and even in the equine security sector.

The Evolution of modern Showjumping Horses

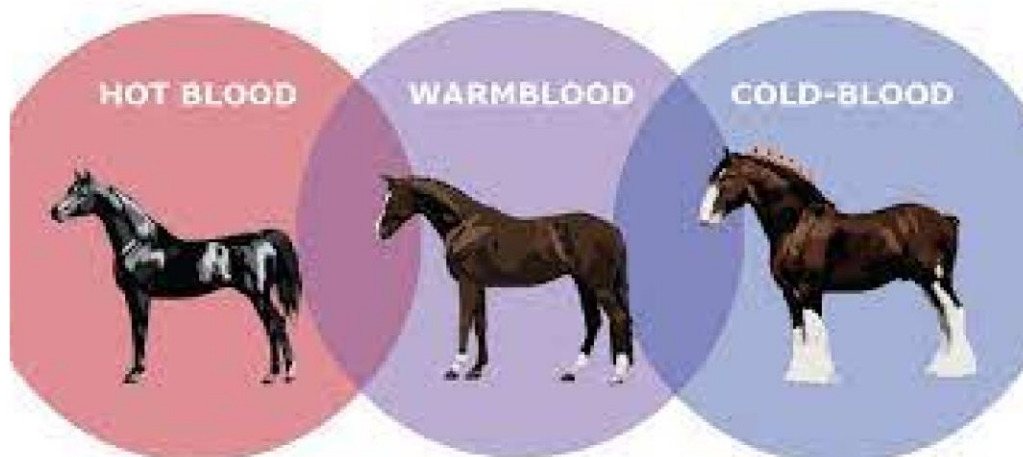


Ardennes Horse



Shire Horse

5.4 Referring One-Pager



- desert
- slim, dainty
- stamina, speed, endurance
- exp. arabian

- cross between cold and hot bloods
- originally carriage horse
- athletes
- exp. Holsteiner

- cold regions
- heavy, big
- hauling, farmwork
- exp. shire horse

6. Selective Breeding

6.1 What is selective breeding in horses?

Selective breeding is the process in which humans control the breeding of two horses by pairing horses with desired traits, characteristics, and conformations in order to produce offspring that bring the most desirable characteristics forward.

In show jumper breeding a horse whose traits prevail to be desirable (conformation, speed, scope) are worth more money.

6.2 Studbooks

Each horse breed has a studbook. They are a foundational pillar of modern-day horse breeds as these records define the breeding goals, the selection criteria/system, as well as the identification and registration of each horse from the hypothetical breed. The breeding goals of horses have been changed by humans over time depending on their needs. In modern-day sport horses the goal is to create (as the name says) performance athletes with optimal soundness, rideability, reproduction and function etc. Breeders that participate in selectively breeding towards the breed's common goal (defined by the stud book members) register their horses in that breed-specific studbook. Studbook members adapt their overall breeding goal to the market of trusting buyers (who specifically ride, buy, and collaborate with horses whose breed and studbook corresponds to their needs and wants in a horse) whilst staying true to the breeds standards approximately every 10 years (a horse generation). Horses that want to enter a stud book (and be considered a result of selective breeding towards a certain breed) must abide to the standard conformation and other criteria of the breed to be registered, usually after examination/testing.

7. The Evolution

7.1 Genetic origin point

In this chapter, I begin to trace the modern-day showjumper's evolution from their genetic origin point on out.

Biologist, Ms. Barbara Wallner lead/conducted a study concerning the genetic origin point of modern-day horse breeds. In their study, they screened fifty-two horse's MSYs (male-specific Y-chromosomes) of twenty-one breeds and estimated (by analyzing their Y-chromosome sequences) their novo-mutation rate aided by precise pedigree documentations. They found that almost all horse breeds (including those of central Europe) cluster in an around 700-year-old haplogroup (a set of DNA variants that tend to be inherited) *before the horse domestication period, further proof that modern day horse breeds were in fact created by selective breeding. This haplogroup originates from the so-called oriental stallions which have two main subclades: the original Arabian horse lineage and the

Turkoman horse lineage. The English Thoroughbred MSY is shown to be largely responsible for this haplotype in modern day breeds.

The Sport horses I include in my TraPe mainly originate from central Europe. Barbara Wallner's 2017 study found these horses by origin to be: **9% Arabian and Trakehners, 1% franchises montanges, 27% warmbloods, Morgan, Lipizzaner, 2% standard bred, Morgan, and 56% Warmblood horses, Quarter horses** (view figures 1 and 2). The percentages highlighted in the color green are immediately traceable back to the Arabian horses and the percentages highlighted in the color red are first traced back to the English Thoroughbred.

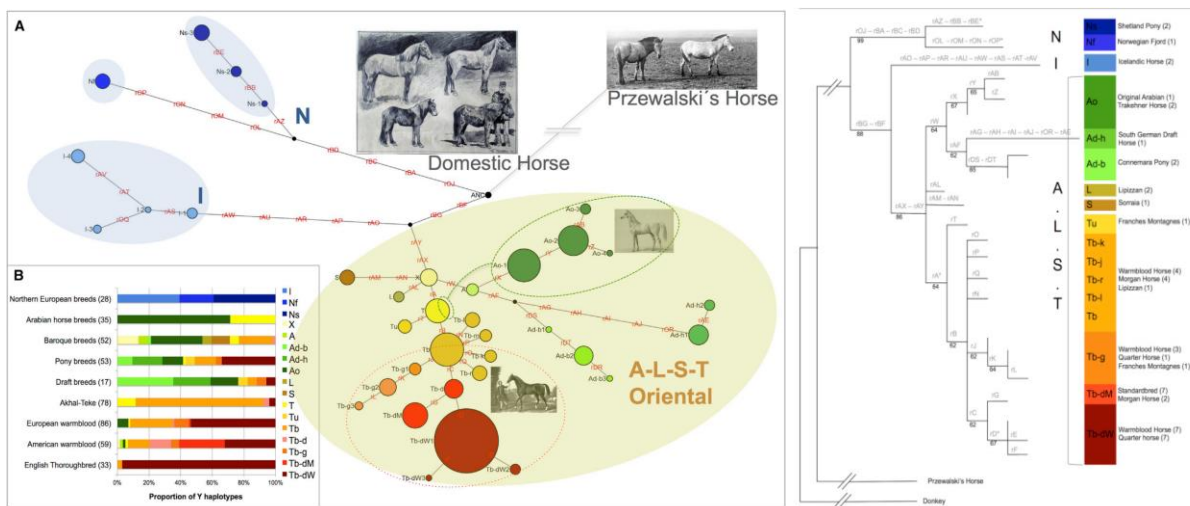


Figure 1
Figure 2

7.2 The Arabian horse history

I will continue tracing, with the Arabian horse breed as, the Turkoman horse breed is mainly extinct (it is most closely known relative would be the Akhal-Teke horse). They are also mostly responsible for the modern-day showjumping horse's genetic origins.

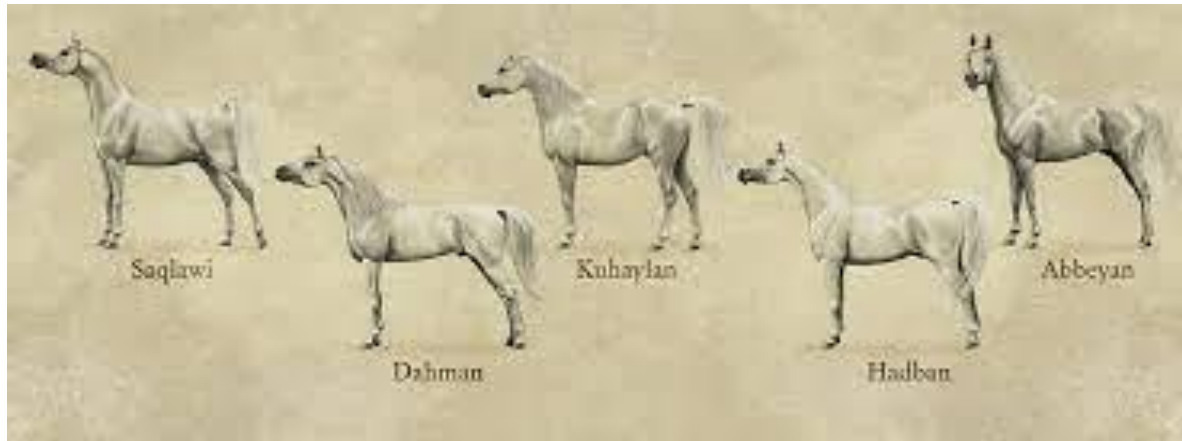
The origin of this ancient, pure, and prized breed was unfortunately lost in antiquity and remains a mystery today. So, is the place and time in which the horses were domesticated, and their power harnessed- a huge advancement in human history. Evidence of the domestication of Arabians however, first



The Bedouin and the Arabians

appeared around 7000 BC in Syria, undisputedly in 2000 BC when horses were buried with chariots. Arabian pedigrees were first recorded 1330, though the first true, selective Arabian horse breeders were the Bedouin (nomadic) Tribe of Saudi Arabia, Sultan, Syria, and modern-day Jordan. They kept generationally passed down strict and detailed oral pedigrees of the hot bloods. As the breeding was crucial to their survival, they concentrated on breeding only the purest, loyalist, healthiest, athletic, and fastest horse bloodlines. They needed the Arabians mainly for their warfare and treasured their mares above all others. They carried their riders into battle courageously and loyally stood next to their fallen partner until forcefully being led away. Logically, the Bedouin pedigrees were based on the dams rather than studs as in our modern-day records. Mare families or strains were named by the Sheiks or tribe. A purebred Arabian mare being considered a gift of Allah. Traditions include Mohammed setting camp by refreshing waters, with him hundreds of mares: “Then by inspiration of Allah Muhammad he decided not to give drinking water to the mares for three days and three nights, which made the animals suffer cruelly. On the fourth day Muhammad ordered the mares to be released and these, of course, make the rush to the river to quench their thirst ... At that moment, the prophet ordered his trumpets to touch the load, and from the herd that galloped to the river five dry mares were separated, those which returned to their master prior to drink water. Madeah then gave them his blessing and decided that only they were dedicated to the breeding ... “These mares were separately baptized (**Abbayab, Saqlawiyab, Kohailan, Handaniyab and Habdab**) and later believed to have founded the Bedouins main five strains,

from which all others derive. Listed from the most masculine, compact, and round looking horses to the most feminine, stretchier, and longer lined horses:



Arabian Strains

Kuhaylan: According to Carl Raswan (one of the greatest Arabian line connoisseurs): “Strength, deep and wide chest, and hindquarters (as opposed to the feminine beauty of the Saqlawi). Rounded lines (as opposed to angular Muniqi). Ideal saddle horse with tremendous endurance and height around 14 to 15 hh.”

The Kuhaylan strain derives into three mare branches: Turfhan, Resdi, and Werdi.

Dahman: According to Carl Raswan: “Hunter type; large head with straight profile, broad between the eyes and less dry. Croup not straight and height around 14.2 to 15.2 hh.”

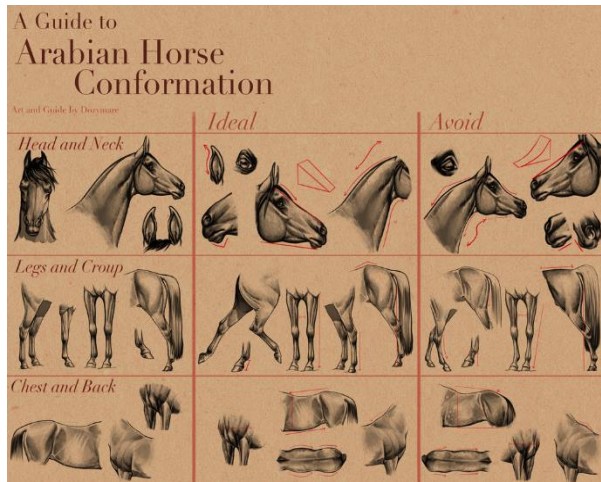
The Dahman are historically related to the Kuhaylan. Their Line is considered the horses with the most endurance and stamina. Their main coat colors are bay or grey.

Hadban: There is almost no descriptive information about this strain. Their main influences are the Saqlawi and Kuhaylan strains.

Saqlawi: Carl Raswan noted the predominant coat color to be chestnuts with flaxen manes with a tendency toward white markings. There is an extreme refinement in the elegance and beauty of this strain. They are known to mainly be show horses.

Abayyan: Also, quite common horses, known for their extreme tail carriage. The **Abayyan's** predominant coat colors include bay, grey and chestnuts. They are far more spirited than **Kuhaylan** and the **Hamdani**.

Noticeably, the **Bedouin Arabians** all had several traits in common, separating them from all other horse breeds (credits to <https://alexarabians.com/arabian-horse-history/>):



Depiction of the ideal arabian horse conformation

- Heads have more distance from the eye to the top of the skull than from eye to eye across the face.
 - The top of the skull is in line with the eye and nostril, not bending *backwards* above the eyes.
 - The bones of the lower jaw taper from jowl to incisor.
 - Eyes that fill their sockets.
 - Unobstructed breathing represented by a well-defined trachea/esophagus leading to widely spaced jowls.
 - A definite break in the outline between the neck and withers.
- Withers slightly higher than croup.
 - Relatively short, strong backs.
 - The base of the dock of the tail is set from the point of the buttocks.
 - The deepest point of the body is between the forelegs.
 - A noticeable girth groove.
 - The ratio of trunk and foundation strength to height at the withers is a lower number in Desert Breeds than in other Arabians.
 - Exceptionally well-shaped hooves and sound legs.
 - Thin skin and a noticeable bloom to the coat.
 - An overall appearance of a finely tuned athlete.

Twelve strains of these purebred Arabians prevail today, another eight having been crossed with the Turkoman horse. The purest being those of the Straight Egyptian Arabian lines: **Kuhaylan**, **Abayyan**, **Dahman**, **Hadban**, **Saqlawi**, **Rabdan**,

Muniqui, Shuweyman, Wadnan, Samhan, and Hamdani. The three founding fathers of the thoroughbred breed are theorized to originate from the Muniqui line of horses (ideal racehorse conformation).

7.3 Oriental stallions

7.3.1 The three founding stallions

The founding stallions were three of the oriental stallions. These highly influential horses founded the English Thoroughbred breed from which our modern-day horses (mixed with different cold-blood horse breeds) derive.

7.3.2 The Byerley Turk



Byerley Turk

The Byerley Turk was a true prospect having been the only founding stallion to run a race and having fought in wars for his owners. He is also the earliest of the thoroughbred foundational stallions, presumably born in 1679. Eight years later he was believed to have served the Turkish army/the Ottoman empire (now part of modern-day Hungary) in the Great Siege of Buda. The stallion and his

Turkish officer were allegedly captured by Captain Robert Byerley of the Sixth Dragoon Guards under King William III of Orange in 1689. Research published in 2009 by Nicholas Clee however deemed these details incorrect, claiming Byerley was not present at the Siege. Speculation offers that the Turk was captured by Robert Byerley in the Battle of Vienna (1683), also serving the Turkish Army. Robert received his Colonel title in 1688. He owned the oriental Stallion by 1689. They won the 1690 Silver Bell at a meeting held by the Down Royal Corporation of Horse breeders. The Turk served Robert nobly in July of the same year in the Battles of Boyne against the forces of King James the Second. The Byerley Turk was brought to the Family seat in Goldsborough Hall, England after Robert resigned from the army and got married to the daughter of another prominent horse breeder of his time. There the stallion was set as a stud around 1701. Though he is said not to have covered the most 'well-bred' mares, the horses he sired were surprisingly successful. His most influential colt being Jigg and principal

racing colt being Basto. The Byerley Turk died in 1703 at the Goldsborough Hall, forever to be remembered as one of the honorable founding fathers.

7.3.3 The Darley Arabian

The Darley Arabian is very (if not the most) influential horse in the founding of the thoroughbred breed, 95% of modern-day thoroughbreds being traced back to him by his Y chromosome. The bay colt was born in the year 1700 on the Syrian desert outside of Aleppo. Sheikh Mirza II had bred and originally owned the colt. The bay was promised to Thomas Darley a English Consul, merchant, and equestrian for three hundred gold sovereigns (at face value of 341 Euros).



the Darley Arabian

Thomas Darley however learned, whilst awaiting the Arabian, that Sheikh had refused to export the colt, finding it impossible to part from him. Allegedly, Thomas Darley smuggled the Arabian out of Syria by sea and over Smyrna (a Greek city strategically located on the Aegean coast of Anatolia) into England. Thomas brought the Darley Arabian to his family's stable in Aldby Hall. There he was bred between the years 1706 and 1719 to mostly Darley's mares. Though the disadvantages, by the quality of the mares he covered, the Darley Arabian sired many successful and significant foals including Childers, Almanzor, Aleppo, Cupid, Brisk, Daedalus, Dart, Skipjack, Manica, Lord Lonsdale's Mare, and Lord Tracy's Mare. The pure and influential Darley Arabian is said to have died in 1730, in ownership of John Brewster Darley-brother-in-law of Thomas Darley.

7.3.4 The Godolphin Arabian

In the evolution of modern horse breeds there are rarely as many legends swirling



Godolphin Arabian

about regarding a stallion, as with the Godolphin Arabian. The Bey of Tunis,' bay colt was born around the year 1724, his original name being Sham. He was gifted to the French King: Louis XV also known as Louis the beloved. Sham was not popular in the French yard due to his poor physical condition after the long journey from Tunis and his head-

strong temperament. The Vicomte Manty's characterization of the stallion upon his arrival being "beautifully made but half-starved." Louis XV, not impressed by the stallion, sold the stallion through the Duke of Lorraine to the English breeder Edward Coke in 1729. He stood in his stable, the Longford Hall in Derbyshire as a stud. Edward Coke recorded Sham as 'ye Arabian' in his official studbooks. In 1731, the later known as Godolphin Arabian covered Edward Coke's mare: Roxanna. She foaled Lath, a colt who grew up to be one of the best thoroughbred racehorses of his time, winning the 1738, 1754, and 1747 champion sire titles. Edward Coke unfortunately died in the year of 1733. He left the Godolphin Arabian to his friend Reger William who sold the oriental stallion to the second Earl of Godolphin (from whom the Godolphin Arabian also inherited his name). The Earl continued pairing Roxanna and the Stallion. Cade, Lath's full brother, was acquired who also had many successes on the racetrack. The dam Roxanna unfortunately died after foaling Cade in 1734. Still the breeding of the Godolphin Arabian's around ninety foals (including Babraham, Dismal, and Dormouse, each remaining undefeated in their racing careers) continued, producing modern-day thoroughbreds, traceable by his Y chromosome. The Veterinary surgeon Osmer described the Godolphin as: " for, whoever has seen this horse must remember that his shoulders were deeper, and lay farther into his back, than those of any horse ever yet seen. Behind the shoulders, there was but a very small space ere the muscles of his loins rose exceedingly high, broad, and expanded, which were inserted into his hindquarters with greater strength and power than in any horse I believe ever yet seen of his dimensions, viz fifteen hands high." He passed away in the year 1753, having lived a legendary and (in my opinion) quite sad life of around 29 years.

7.5 Tracing a horse I've worked with, Berretta

7.5.1 Introduction

In this Chapter, I am going to demonstrate tracing the family tree and evolution of modern-day showjumping horses from present to past, instead of from past to present. To do so, I am going to be taking an Oldenburg (one of the featured breeds) mare (registered in the Luxembourgish studbooks) whom I have had the chance to work with and attempt to go as far back as possible in her bloodlines, in hopes of finding her farthest origin ancestors records and gain a more practical insight on the evolution of show jumping equines. The mare has been successful

in 140cm classes and is momentarily 14 years old. This generational listing contains Berretta’s father’s stallion line and Berretta’s mother’s stallion line. I list the: generational distance from Berretta. “Horse Name”-“Horse Breed”, “success and wins”.

7.5.2 The Stallion Line

Generation	Name	Success	Breed	Notes
1	Numero Uno	160cm, Olympics	KPWN	
2	Libero H	140cm	Holseiner	
3	Landgraf I		Holseiner	
4	Ladykiller		Thoroughbred	
5	Sailing Light		Thoroughbred	
6	Blue Peter		Thoroughbred	6 Starts- 31,964 pounds
7	Fairway		Thoroughbred	15 starts- 42,722 pounds
8	Phalaris		Thoroughbred	24 starts- 21,946 pounds
9	Polymelus		Thoroughbred	31 starts- 16,803 pounds
10	Syllene		Thoroughbred	
11	Bona Vista		Thoroughbred	
12	Bend Or		Thoroughbred	
13	Doncaster		Thoroughbred	
14	Stockwell		Thoroughbred	
15	The Baron		Thoroughbred	
16	Birdcatcher		Thoroughbred	
17	Sir Hercules		Thoroughbred	
18	Whalebone		Thoroughbred	leading sire (1826-1827)
19	Waxy	Epsom Derby winner	Thoroughbred	
20	Pot8os		Thoroughbred	over dam line grandfather Godolphin Arabian
21	Eclipse		Thoroughbred	mentioned before
22	Marske		Thoroughbred	
23	Squirt		Thoroughbred	
24	Bartlets Childers		Thoroughbred	
25	Darley Arabian		Arabian	

7.5.3 The Dam Line

Generation	Name	Success	Breed	Notes
1	Chapeau U	130cm	Oldenburger	
2	Calato	160cm	Holsteiner	
3	Capitol I		Holsteiner	
4	Capitano		Holsteiner	
5	Corporal		Holsteiner	
6	Cottage Son		Thoroughbred	premium award
7	Young Lover		Thoroughbred	
8	Son-In-Law		Thoroughbred	
9	Dark Ronald	eight starts- 8,239 pounds	Thoroughbred	
10	Bay Ronald	twenty-six starts-6,443 pounds	Thoroughbred	
11	Hampton		Thoroughbred	
12	Lord Clifton		Thoroughbred	
13	Newminster		Thoroughbred	
14	Touchstone		Thoroughbred	
15	Camel		Thoroughbred	
16	Whalebone		Thoroughbred	leading sire (1826-1827)
17	Waxy	Epsom Derby winner	Thoroughbred	
18	Pot8os		Thoroughbred	over dam line grandfather Godolphin Arabian
19	Eclipse		Thoroughbred	mentioned before
20	Marske		Thoroughbred	
21	Squirt		Thoroughbred	
22	Bartlets Childers		Thoroughbred	
23	Darley Arabian		Arabian	

7.5.4 Analysis

In this generational listing I found it interesting to see that both Chapeau U (the first dam) and Numero Uno (the sire) are both traceable to the Darley Arabian. This is not surprising as the Darley Arabian was the most influential of the three founding oriental stallions. There is also a mild Godolphin Arabian influence in Numero Uno's line. Chapeau U and Numero Uno's lines are undifferentiable from the 16th and 18th generation on with a highly influential stallion named Whalebone. This is also not all too surprising as he was a leading sire in 1826 and 1827. The span of both pedigrees also only varies by only two generation. Both bloodlines are also heavily influenced by the Holsteiner horse breed. On this breed's timeline we can observe that the breed molds into the thoroughbred horse breed after WW2. Conclusively, also that Berretta's bloodlines reflect the timelines and trends that were closely documented by selective horse breeders and studbooks, going to show (in a more practical way) how modern-day showjumping athletes evolved.

8. Conclusion

8.1 Conclusion

The timelines of each of my seven featured showjumping horse breeds confirms, as stated in Ms. Barbara Wallner's Study, that each modern sport-horse breed can be traced back to the hot-blood ancestors: the Turkoman horse and the Arabian horse. The top-sport breed's genetic origin points split after the founding and crossbreeding of the oriental stallions which created the Thoroughbred horse breed. This hot-blood breed was later refined with cold-blooded breeds of the region (which had, until approximately the 19th century been used for farming), selectively to (usually) create higher-stepping carriage horses. The hot-blooded horses had mainly been, until this innovation, used for racing sport and warfare. During this time, many other breeds were founded, such as the highly influential Cleveland Bay and Yorkshire coach. In the 20th Century these horses were refined to be used mainly for performance and sport.

8.2 Reflection



Winners of the last 12 Olympic games

In my opinion, this TraPe has reached it's goal and I have succeeded in effectively learning about the Evolution of modern Show jumping Horses. I discovered, that each of the now athletic and competing breeds (of those featured), each followed a very similar breeding template to reach the conformation and abilities they have today.

In this TraPe, I mainly analyzed the evolution of these horses over a longer period of time. I later noticed that these horses have also interestingly changed over

these past few, more recent years. The winners of the last 12 Olympic games have conformation-wise become less “stocky” as the cold blood genes slowly start being bred out again (see depictions).

Research has shown, that horses with increasing scope and agility often lose their longevity. Speculatively, it is said that as the sport has begun to become more lucrative the horse’s best interest and health have become more unattended. Horses usually competed in high-level sport until their late teens, whereas retirement for horses aged ten are now common.

Genetic diseases and inbreeding are shown in more showjumping offspring. Over 10% of Oldenburger Sport horses (not excluding dressage Oldenburgers) have missing tail tonus due to unfortunate (inbred) genetics. This is due to small stallion pools (inbreeding), “trend breeding” (breeding with the few most trendy and sought for stallions), and untested stallions delivering undiscovered genetic diseases to its offspring. This is also observable in Berretta’s Dam and Stallion lines (chapter 7.5) which become identical at before the Darley Arabian with the lead sire of that year: Whalebone.

In my opinion, the directives of the sport and therefor its breeding need to be changed to honor and objectify the athlete’s physical and emotional wellbeing and longevity. I believe this could be done by letting more coldblooded genes resurface and changing the views of an elegant an beautiful horse (for example, prioritizing larger and sturdier ligaments, broader chests allowing more space for the heart and lungs, a stockier, more balanced, proportionate and comfortable frame or conformation etc.), as well as judging for the most harmonious and clean parcourse instead of attempting to test the horse to its limits with various unnatural technicalities and heights (leading to the desire for unnaturally bred horses).

Generally, I was impressed in learning about the topic of my TraPe, how early the concept of selective breeding existed and was applied, as well as how significantly this (globally used) breeding technique affected the various horse breeds. I also find the effort the united groups of breeders put towards diverse goals and how effective “products” of hard work are created admirable examples of team work towards a common interest.

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