

Four annexes to the Response to the Interim Report and ICOMOS request for additional information from 21st December 2018, ref. no. GB/AS/1589/IR

Annex 1

FUNCTIONAL AREAS OF MAN-HORSE INTERACTIONS

A) Interactions between the man and horse

In our reflection on the greatest victories of man as presented in myths, religions, and also encyclopedias and works of art, an important role will always be played by the horse – an animal which, of all species, has made the greatest mark on the history and progress of humanity. The horse is connected with the development of many crafts and trades, with overcoming distances and learning about other countries and cultures, with speeding up the passing of messages between people who were far away from one another. It is certainly no fault of the horse that it has been misused for purposes of military conquest, but it is also true that in many cases successful defence against armed aggression, or life-saving escape would not have been possible without the horse. In many countries the horse is also the source of many consumer items – milk, hides, horsehair and meat; it is an indispensable helper in areas hard to reach by modern off-road vehicles, and it has inspired many ancient noble crafts producing items used in the care of horses or needed for riding and harnessing them, crafts, which have their *raison d'être* in the horse.

A lot of these things have disappeared or will disappear with the passage of years, especially in industrialised countries; what remains, however, is the use of horses for sport and leisure, as helpers in maintaining public order and in the therapy of the disabled. First and foremost, however, the horse continues to be a faithful friend and companion of its master or mistress, bringing people back to nature and the natural order of things.

The ancestor of the modern horse appeared on our planet for the first time some 60 million years ago in North America as a small forest mammal (*Eohippus*) with several digits on each foot. Unlike other larger herbivores, especially ruminants, it adapted itself slowly to the ecosystems of open spaces covered in sparse vegetation. The middle digit on each limb developed into a single toe while the remaining digits gradually disappeared, the limbs grew longer, allowing the animal to run fast and become taller. The evolution of the equidae included changes in the teeth structure, enabling them to chew the hard vegetation of the plains where they lived. During the Pleistocene this resulted in the development of the *Equus*, which had a withers height of 1.40 m.

Some 15 thousand years ago, its successor, *Equus ferus*, spread across a wide area. Skeletal remains from the Late Pleistocene can be found in North America,¹ Beringia and the whole of Eurasia where horses came from North America via the land bridge.

The coexistence of man and horse can be divided into several areas according to the purpose for which horses have been kept; some of them may overlap on the time scale.

¹ 10 thousand to 7 600 years ago the horse became extinct in North America. The reasons are not known – maybe they had something to do with the arrival of man, maybe climate change, which caused the replacement of the vegetation system of steppes with tundra.

Functional areas of man-horse interactions:²

- 1) The horse as a source of meat – from 50 thousand BCE to date
- 2) The horse as a domesticated animal and factor in civilisational development – from 4 thousand BCE to date
- 3) The horse used to help herders (stock horse) – from 3500 BCE to date³
- 4) The draught horse (drawing carts, sledges, wagons and coaches) – from 2000 BCE to date
- 5) The horse helping farmers – from 900 BCE to 1945 CE (in most developed countries)
- 6) The warhorse – from 700 BCE to 1945 CE
- 7) Horse as a partner in sport and leisure – from the 6th century BCE to date⁴
- 8) The horse as the subject of works of art, legends, myths and rituals – from 35 thousand BCE to date
- 9) The horse as a messenger – from the 4th century BCE to date

1) The Horse As a Source of Meat

The first link between man and the horse as a source of food (meat) was some 50 thousand years ago. Prehistoric man was the first to see much desired prey in the horse – a killed horse meant a supply of food for a number of days. This fact is supported by the archaeological evidence of finds of bones of hunted animals including the bones of horses.⁵

There was never any guarantee that the hunt would have the desired result and a successful outcome was encouraged or, if the purpose was accomplished, appreciated by magical rites. Some people think that cave drawings of horses (and of other hunted animals) were connected with these beliefs. Examples of such caves can be found in France and Spain. The walls of the caves are covered with hundreds of coloured drawings of horses.⁶

2) The Horse As a Domesticated Animal and Factor in Civilisational Development

In ancient times people lived day by day. They ate what they killed or found and nobody knew what the next day would bring: it was safer to gather and store crops. The meat of hunted and killed animals spoiled rather quickly and could be kept for a longer time only in freezing weather or if the animal was kept alive. People then discovered a new option – some animals would let themselves be lured and captured, they slowly became accustomed to man, they were 'domesticated' and could be kept as animals for slaughter. Man thus had meat within reach at all times. The first animal to be domesticated was the dog. This happened approximately 10 thousand years BCE. Dogs were later joined by sheep and goats, and later

² The riding horse is not listed here as a separate functional area as it is covered by others such as stock horse, warhorse, partner in sports or horse as a messenger.

³ This area is listed here separately because of its specificity however, this horse could be also included in the area of the horse helping farmers.

⁴ To determine which equestrian sport discipline is the oldest one is extremely difficult; most likely it was a discipline widespread among the "horse riding nations" of Central Asia. For the purpose of this study we selected the polo because in this case there is a very clear boundary between the game (sport) and the utilitarian use of horse.

⁵ Probably the largest prehistoric horse 'cemetery' was found under a steep cliff near the French town of Solutré: bone remains are layered one on top of another, in some places up to 230 centimetres high, on an area of 4 thousand m². Palaeolithic hunters had evidently made use of local topography for their unique way of hunting horses passing by the Solutré escarpment on their seasonal migration routes (to spend the winter in the valley of the Rhône and the Saône and then move back to the plateaux de l'Ouest when the weather became warmer. The hunters must have repeated this slaughter often at this site; a large amount of bleached horse bones have accumulated here over decades.

⁶ The most famous cave paintings discovered in Spain and France are usually dated to the Magdalenian (approx. 17 to 11 thousand years BCE), some significant paintings are dated to even earlier times - as far back as the Aurignacian (38–28 thousand years BCE). The very beautiful Sculpture of a Horse, 30 to 29 thousand years old, from the Vogelherd Cave in Germany has a similar dating.

pigs and cows. Only then came the horse, which was among the last to start living with people. The domestication of horses is believed to have occurred in the Eurasian steppes. The exact place where the domestication took place is now difficult to identify. One of the reasons is that the bones of wild and domesticated horses are in fact identical.

Domesticated horses descended from the wild horses of Central Asia.

The prevailing view is that what can be considered to be the first domesticated horses were those that were kept for meat and herded rather than hunted. Later they were used as pack horses and only after that to carry riders. Riders on horseback followed semi-domesticated animals rambling over the vast steppes.

In 2009 it was announced that the herders of the Kazakh steppes were probably the first to domesticate horses, to bridle and ride them. This has been proven by finds dating to the high period of the Botai culture (approx. 3700–3100 BCE) made on the territory of prehistoric Kazakhstan – a detailed study of the teeth and jaws of Botai horses has revealed unmistakable traces of long-term use of a bridle. A convincing testimony to the importance of the horse in the life of the Botai people are fat residues on pottery shards. The composition of the isotopes in this fat corresponds with that of mare milk. More proof has been provided by the comparison of finds of bone remains of demonstrably more recent domesticated horses with wild horses.

Domestication, whether started with a captured foal or gravid mare that have not managed to escape, or with a small herd driven into a prepared enclosure, brought a revolution: man owned an animal in which he valued not only its power and the fact that it could carry or pull heavy loads, but also its speed and sense of perception, which somehow made it different from domesticated bovids.⁷

The moment when man domesticated the horse and harnessed it for the first time, and later threw his leg over its back, was the culmination of a truly historical coup: to his own skills and intelligence man added the power of the horse; its speed and stamina; the horse's visual field of 340°, which enabled it to see hidden danger; its acute sense of hearing, by which, the horse can, amongst other things, predict an earthquake, perceive ultrasound or an approaching predator; a well-developed sense of smell thanks to which it can sense water from a distance of up to 800 m, etc.⁸ By joining forces with the horse, man acquired a great advantage. New horizons opened up for him. The horse helped him become acquainted with faraway lands;⁹ conquer great empires; develop trade and crafts, some of which were directly connected to the breeding and training of horses; organise a systematic way of delivering messages; and help some of the settled tribes and peoples to plough and harvest, to drive herds across the pastures and guard them. Progress in agriculture would have been unimaginable without the horse.¹⁰

Sandra L. Olsen: *"Many animals - dogs, cattle, goats, pigs, and sheep - were domesticated*

⁷ Prior to the invention of the wheel, the animal power of the horse could be used for transporting burdens only by traction as still used by North American Indians in the 19th century.

⁸ The horse has five senses, but it also has something like a sixth sense, which enables the horse to predict climate events or changes such as shifting sand or otherwise unstable bedrock etc. (Sibylle Louise Binder et Gabriele Kärcher *La Vie fascinante des chevaux*, Larousse, 2002)

⁹ A person could cover about 4 miles an hour, a horse moved double that speed and kept it up for long distances – 8 miles per hour and up to 35 miles per hour at short distances. It could cover up to 100 miles in a day. The digestive system of the horse allowed the horse to eat while moving, while its ancestors, such as the reindeer and cow (polygastric animals – ruminants), needed breaks to rest. The biomechanism of the horse's limbs facilitated efficient movement – for both riding and pulling. Moreover, the shape of the horse's body provided a comfortable sitting place for a person on horseback.

¹⁰ The use of horses in agriculture resulted in the production of a surplus and it released labour force that could be employed in other ways, for instance in crafts, art and intellectual activities including the nascent public administration. Farmers started producing so much that they could exchange the surplus, and that not only between villages and towns, but also distant regions – and again it was the horse that helped in these exchanges. It could be claimed that the horse, especially the draught horse, opened the way to the urbanisation of Europe because it made the supplying of towns with food and raw materials possible.

before the horse, but breeding that one species of livestock was a seminal event. Horses stand apart because of their versatile roles in human society, which came to include dairy production, transportation, haulage, plowing, sports, warfare, religion, and status. It is difficult to place those functions in order of importance."

For several millenia the alliance of man and horse contributed significantly to the development of society. It changed fundamentally during the 20th century in industrialised countries when technological progress brought about the last change in the purposes horses served in the lives of people. In most industrially advanced countries, the arrival of the steam engine, of motor vehicles and the farm tractor heralded the demise of the horse-drawn carriage and horse power during the 20th century. Horse riders changed, too: the cavalry, passengers, farmers and merchants were replaced by people riding horses for sport, or rather leisure, who often lived in towns and sought contact with nature and an opportunity to enjoy physical exercise.

At the same time, however, horse-riding, which in the past was mainly the domain of men in Europe,¹¹ became more gender-balanced in the 20th century and now there are both men and women riders, horse breeders and grooms.

Horses enter the 21st century still possessing their ancient, albeit in history often overshadowed mission in sport and as guards, but with new additional tasks, such as hippotherapy. Also the role of the horse as a subject of works of art lives on.

The significance of the horse as man's work mate is confirmed symbolically every day by the widespread use of the HP unit for measuring the performance of technical devices.

3) The Horse Used to Help Herders

When the horse turned from being a source of food to becoming a riding horse, it started being used as an indispensable workmate in the herding of earlier domesticated stock, especially sheep and cattle, but also horses.¹² The stock horse made the work of the herder more efficient. A man with a dog could guard a flock of 100 sheep, but one man with a horse and a dog could manage a flock of up to 500 sheep. The herds often grazed on vast open pastures, which meant that the drover needed a very calm, reliable, steady and deft horse capable of working long hours not only tracing the herd and rounding it up, but also dividing it, or rather separating an animal selected, for example, to be slaughtered.

4) The Draught Horse (Drawing Carts, Sledges, Wagons and Coaches)

Nomadic tribes have generally been inclined to ride horses; settled peoples usually harnessed them to vehicles.¹³ Using a horse in harness depended on whether the civilisation concerned had any previous experience in harnessing other types of animals, such as oxen or donkeys, on whether the people knew how to use the wheel in an effective way or on whether they had any need at all of a draught animal.

Carts, sledges and wagons were used to transport goods and frail or elderly individuals.

Wheeled vehicles were invaluable for civilisations that developed cities. (Grain and fodder had to be transported from the country to the towns where there was a high concentration of people and animals, and goods from town to town had to be also transported.) Harnesses existed before the invention of the wheel and were used for traction. In those times, horses

¹¹ Until the decline of the military cavalry towards the end of WWII, horse-riding remained largely a male domain.

¹² The horse is still being used by North American farmers and in the French Camargue to herd horses.

¹³ The Scythians, for example, who spent so much time on horseback - in battle, herding, hunting - did not harness their horses to pull carts. They used cattle for that purpose. Horses pulled carts with women and children during migration only in the Altai.

pulled a load placed between two wooden beams with one end dragged along the ground. In Europe and Asia this type of transport disappeared with the switch to a wheeled cart.

In the Middle Ages people were often transported in litters carried between two horses. The structures were very simple, without cushioning or cover, but on the other hand they were robust and could withstand the terrible state of the roads. The times of medieval knighthood were indeed not very kindly disposed to the transport of persons. Servants, women and men rode on horses or mules, women and monks also on jennets. Not even in festive processions, including papal processions, was it a common to travel in carriages.

When covered wagons became somewhat more common in the 17th century, it was mostly women that travelled in them. It was considered effeminate for men to ride in carriages. The feudal lords had a great interest in their retainers being skilled horsemen accustomed to using horses, thus it was a social norm for a healthy man to transport himself on horseback.

Once the state of the roads improved a little in the modern period and the public safety of travellers, which was not much in the Middle Ages, improved too, and cushioning of vehicles was reinvented (see next paragraph), a wide assortment of vehicles appeared (travel coaches, carriages for official purposes, carts to transport goods, sometimes modified for special purposes especially with the development of trade; sport carriages, etc.). An important phenomenon in the Modern Age was the use of horses in public transport (stagecoaches, fiacres, omnibuses, horse-drawn trams and horse-drawn railways – see next paragraph).

A special kind of draught horse is the **coach horse**. In this case the carriage is a comfortable sprung four-wheel vehicle drawn by horses. Until the spread of railways and later motor vehicles, this type of carriage was the most common road vehicle. The difference between a cart and carriage is that the former has no springs and is not covered.

Ancient Romans started using carriages as travelling vehicles in the 2nd century CE at the latest. This was a vehicle with springs and a cabin for passengers. However, this technological achievement disappeared with the decline of the ancient world and approximately until the 16th century people were transported in uncushioned carts with no springs or hinges.

Springs were reinvented in the 15th century CE in the Hungarian town of Kocs.¹⁴ From that time the carriages, which became technically more sophisticated as time went by and fitted with a roofed cabin, spread quickly all over the European continent because they were so comfortable.¹⁵ They were, of course, owned only by the wealthiest strata and hence were a kind of status symbol. They were decorated accordingly and equipped with all kinds of accessories. What was important was also the breed of the harnessed horses and their number in a team.¹⁶ Members of the highest strata would have two or three carriages.

The carriages were perfected as time went by and in the Baroque period they were built as luxurious vehicles. No amount of gold, silver and ornaments was spared and the carriages became very expensive,¹⁷ not to mention the price of the draught horses. Royal courts and the nobility needed stud farms to produce beautiful teams. Special coach breeds were bred, for both transport by common coaches and festive occasions (like the Kladruber horse).

Continuous improvement gave the carriages a beautiful and elegant shape and when the English introduced iron axles, they also became very safe. The greatest improvement of carriages occurred in the 18th century, especially in France and England.

At the time when horse-drawn carriages were most popular in western Europe, especially in England, it became a fashion at the beginning of the 19th century for people to drive their own teams. In France it was fashionable at that time to have an equipage with handsome horses

¹⁴ The first mention of the term 'kocs' is from 1469.

¹⁵ The fact that they spread quickly is reflected in the term used in many European languages, which is derived from the name of the Hungarian town of Kocs - coach(English), *Kutsche* (German), *coche* (French), *cocchio* (Italian), *coche* (Spanish), *kočár* (Czech).

¹⁶ The Duke of Friedland, Albrecht Wenzel Eusebius von Wallenstein, had many coaches at his court. He entered Manheim in 1630 with 43 coaches pulled by teams of six, 16 coaches pulled by teams of four and ten had teams of two.

¹⁷ The wedding carriage of the wife of Emperor Leopold I of Habsburg was purchased for 38 thousand gulden.

and, as we read in literature, it was considered good taste to present oneself in public, for example on the Champs-Élysées, in an equipage.

For a long time the horse-drawn carriage remained the most widespread means of passenger transport. It was also possible to lease one.¹⁸ Carriages stopped being used for common transport of people only with the emergence of steam and automotive transport and the expansion of the public motor transport network.

Together with the development of carriages - albeit with some delay as far as the principles of providing passenger comfort were concerned - public transport started appearing, especially in the form of post-carts (see the chapter on the horse as a messenger) and stagecoaches.¹⁹

Stagecoaches became increasingly common after 1818,²⁰ though because of their height they were not very stable and were slower than the *malle-poste* in France or the British mail coach system.²¹ The stagecoaches may have been covered and in Europe (not so in America) equipped with glazed windows, but they were cold and not very comfortable inside. Stagecoaches disappeared from the main roads with the emergence and development of railways.

One of the means of public transport in towns that must be mentioned was the omnibus. Historically, the omnibus was always a horse-drawn vehicle providing regular public transport service. Omnibuses always followed set routes, which distinguishes them from fiacres, the predecessors of today's taxis. The first attempts to introduce an omnibus took place as early as in 1662. This was supposed to be a coach that would follow always the same route²² in Paris from one quarter to another and depart from a set stop, regardless of how many people were there, always at the same time, even if empty, and without the people using the service having to pay more than for their own seats. The time then was not ready for the omnibus system and the service did not catch on.²³ It really developed, and that very strongly, in the first half of the 19th century (for example in Britain, France and Prussia) – in Paris there were 25 lines in 1855 and in 1860 the relevant omnibus company had 503 omnibuses and 67 thousand draught horses.

The success of the omnibuses was followed by the horse-drawn tram, which became very common at the end of the 19th and beginning of the 20th century in various urban conglomerations (London, Manchester, Toronto, Omaha, Paris, New York, Montpellier, Prague, etc.). What contributed to its popularity was the fact that the cars could carry many more passengers, because moving on rails was less demanding of horse power. After 1896, horse-drawn trams started being replaced by engine driven ones. This resolved the issue of

¹⁸ This was the fiacre – a rented coach driven by a carter and leased to transport persons to a certain distance or for a certain period. In Paris, for instance, it appears that the first licences were issued to owners of carriages. The name of this leased carriage was probably derived from the house sign of St. Fiacre on the house where the first office renting them out had its address. Fiacres were like the London hackneys (here the word itself refers to horses as it is derived from the same sounding name of a village with the meadows on which horses were raised). The German analogy of the fiacre was the *droshky*, a light, open and suspended rented vehicle for two to four passengers, drawn by one or two horses.

¹⁹ Around 1640, stagecoaches appeared in Britain – heavy and clumsy unsprung carriages that could carry up to 8 persons, with the cheaper places located in the uncovered rear part of the carriage, and the very cheapest on the roof. These difficult to drive carriages were drawn by 4 to 6 horses and reached a speed of 4 miles per hour. In 1775, Anne Robert Turgot had a new type of stagecoach made with 4 to 8 seats for passengers and drawn by 6 to 8 horses.

²⁰ At the time of their boom the largest stagecoaches were divided inside into three 'compartments' with different levels of passenger comfort; passengers could also use a bench on the leather-sheltered roof, where the coachman also sat. (The postilion sat on one of the horses in the team or on a separate horse).

²¹ More on the French *malle-poste* and the British mail coach system in The Horse as Messenger.

²² There were altogether 5 set routes.

²³ The social hierarchy of the period restricted the use of this service to the higher strata, who, however, had access also to other means of personal transport. Anyhow, most of the population of Paris lived in the same quarters where they worked, thus the need for mass transport was not so pressing as one and half century later, when the development of the omnibus system started.

the demanding care of draught horses.²⁴

Horse-drawn rail transport found its place also in other forms. Rail routes for carriages pulled over a light railway superstructure by horses started being built at the beginning of the 19th century all over the world. Thus in 1825 the first public railway track on the European continent linked České Budějovice in Bohemia with Linz in Austria. The main idea behind the construction of these tracks was to reduce transport costs. The horse was able to pull a much heavier load in a carriage on rails than in a carter's wagon. Nevertheless, the era of horse-drawn railway wagons was shortlived and as early as the mid-19th century they were replaced by steam driven engines.

In industrialised countries the arrival of the steam engine and later of the internal combustion engine brought the use of teams of horses for the transport of people and goods to an end,²⁵ nevertheless the use of horse teams started spreading in the world of sport and leisure activities (see The Horse As a Partner In Sport and Leisure).

5) The Horse Helping Farmers

The power, stamina and speed of the horse facilitated the utilisation of larger areas of land for crops than farmers would have been able to cultivate without horses (and also made easier the exploitation of large and more remote plots for breeding and grazing herds of animals, as described earlier).

The combination of more sophisticated agricultural tools and the use of horses resulted in higher yields – horses thus helped to increase the efficiency of farm management, which thanks to them required less time – farmers could move from simple production to the production of surplus (so called expanded production), which they could then exchange or sell and improve their material and economic circumstances.

The more effective agricultural machines meant more time left to be used for other purposes, for example for home crafts, art, and also learning. The effect was more than the individual and his family just having more time away from farm work – the greater efficiency of agriculture brought also the liberation of the agricultural labour force from its traditional occupation and led increased migration from the agricultural countryside to the towns, reinforcing the urban population as a reservoir of labour and potential customer base, and also as the proletariat. The surpluses also contributed to the development of towns as places of concentration of market exchange. The markets of the towns were places where farmers could, on the one hand, trade their produce and, on the other hand, acquire products which they were unable to make themselves or not in the desired quality or amount.

Thus freeing labour from agricultural work thanks to horse power had consequences in the advance of education, the establishment and development of entrepreneurial activities, travel, and artistic and technical creativity, but also in the risk of social and economic conflicts. As mentioned earlier, the horse is from the historical point of view a working animal, which in agriculture facilitates the transport of loads and possibly also people, pulls farming equipment (ploughs, harrows), serves to drive certain machines (mills, water pumps) and facilitates pasturage. However, it should be pointed out for the sake of accuracy that although the horse has been replaced in a number of these fields in the 20th century by motor engines, mechanical drives etc., especially in industrialised countries, this is not absolutely true. In these countries, too, there are regions where the conditions are not favourable to the use of machines or make it difficult. This, for instance, is the case of mountainous regions or of transporting timber from

²⁴ The main difficulty of using horses for transport purposes was that the horse could do such hard work only 4 or 5 hours a day (19 km), which meant that ten or more horses had to be stabled per one coach. The horse had to be stabled, fed and groomed, and it also produced large amounts of manure.

²⁵ This common trend cannot be generalised. See text of following chapters.

the woods to the roads. Besides, even in developed countries there are communities that reject technology, either for religious reasons, like the Amish in the U.S., or for environmental reasons (the horse, for instance, does not destroy agricultural land like a tractor and other heavy farming machinery does, it does not pollute with exhaust gases and leaking oil etc.), or for the simple finding that the traditional way is the best for a given purpose, like watching over herds in Camargue or working on cattle farms in North America, or for certain types of work in French vineyards.

6) The Warhorse

Horses were used in ancient wars by the advanced civilisations of Asia Minor,²⁶ Egypt and Asia to pull chariots,²⁷ but most of the army were foot soldiers.

Due to their costliness and the fact that chariots could be used only on a certain kind of relatively flat ground with a hard surface, they were replaced by the more flexible and cheaper cavalry.²⁸

The first to use horses in a fighting cavalry were the nomadic Scythians.²⁹ The animal they rode was more a pony than a horse, around 140 centimetres tall with a strong neck, head and shoulders, but a small rump and legs. Their art of war served as a model to many others, for example the Parthians.³⁰

No detailed description of their battle tactics on horseback has survived, we can only guess what it was like from the example of other similar peoples. What is certain, however, is that it must have been successful, as proven by their defence against the invasion of their territory by both Darius and Alexander the Great.

From the end of 4th century the Scythians started being attacked from the East by other steppe nomads, the Sarmatians, who in the end defeated them. One of the causes may have been the horses of the Sarmatian nobles, which were up to 152 centimetres tall. With these horses the Sarmatians were able to deploy a truly heavy cavalry. Since their archers on horseback were as good as the Scythians, the height of the horses was a great Scythian disadvantage.

In the Middle East and Iran the Achaemenid Persians (560–330 BCE), following the example of the Assyrians, used foot archers and lancers in combination with the cavalry armed with bows and lances – and it was this cavalry which employed Scythians. Their tactics were very effective in local circumstances in their defence against the steppe nomads, but failed in battles against

²⁶ A key role in Hittite warfare from as early as the turn of the 18th and 17th century BCE was played by chariots and horses were used mainly to pull these. The Hittite chariots were much lighter than the Egyptian ones and were also pulled by two horses, but their crew comprised three men – charioteer, archer and shield bearer. The oldest hippological text is written in Hittite cuneiform; its author was the royal groom Kikkulli (15th century CE) and in the text he gave advice to breeders and grooms. (Of later ancient sources concerning military riding horses, especially the Greek cavalry (see further), mention should be made of a treatise written around the year 360 BCE by the Greek philosopher and commander Xenophon, or the first text originating on the Indian subcontinent, written around the year 323 BCE by Kausalya, who played an important role in the rise of the Mauryan Empire.)

²⁷ The nature and use of chariots in the Middle East are best evident in finds dated to the New Kingdom period in Egypt and comprising whole chariots placed in tombs.

²⁸ This process started with the fall of the Hittite Empire and the weakening of Egypt around 1200 BCE and continued for entire centuries. The earliest depiction of an Assyrian rider dates to the rule of king Ashurnasirpal II (883–859 BCE). In that period the riders were in fact a group of warriors from chariots who rode on a horse.

²⁹ The Scythians pushed out the nomadic Cimmerians inhabiting the steppes to the north of the Black Sea. Judging by the finds of typical curb straps and harnesses, the Cimmerians probably dispersed along the Danube into central and western Europe. A part of them held out on the Taman Peninsula, a part left for the south, invaded Urartu in the 8th century BCE and later became its allies against the Assyrians. In 695 they conquered Phrygia and later plundered the Greek towns of Asia Minor. After that they turned east again to Assyrian Cappadocia and disappeared from history. They were also a population of excellent horse riders.

³⁰ The Persians used the Nisean horse bred in Media in the north western part of what is today Iran. Thanks to this horse they were able to increase the weight of riders, as the horse could carry a man in heavy armour. They also tried to protect the legs of the war horses with armour and in the 4th century the horses were given head and breast covering armour.

the Greeks, for example in the Battle of Plataea (479 BCE).³¹

As for the Greeks, most city states never had a cavalry. Even powerful city states like Athens and Sparta did not use horses before the 5th century BCE. There were, however, regions in Greece suitable for keeping horses, such as Thessalia, Boeotia and the island of Euboea, and suitable breeds of horses were raised for warriors on horseback.³² With the exception of the Thessalians, no Greek state had at its disposal more than 1000 riders. The cavalry units were usually much smaller.

Far-reaching reforms of the cavalry were carried out by Philip II, king of Macedonia, who expanded the original aristocratic light horsemen with a light brigade from Thrace and Thessaly, which he called the *hetairoi*. The latter gained greatest prestige under Alexander the Great and was considered to be the best cavalry in the world.

The Romans relied more on their infantry than on the cavalry. Until the 1st century BCE the Roman cavalry was formed of Roman citizens, who were not very good riders, and from the 1st century BCE Rome relied on provincial auxiliaries called the *auxilia* and recruited from friendly and subjugated peoples, especially the Gauls and Iberians, who supplied almost all the cavalry.

The Romans created many types of cavalry units including light horsemen. They introduced a new type of horse harness— head-stall, horseshoe and curved saddle,^{33,34} and from the 1st century BCE until the 2nd century CE they gave much attention to the effort to use (and train) the cavalry in an efficient way.³⁵

While in the west horse riders started turning into members of the Roman cavalry on horses equipped as described above, in the Eurasian steppes the Parthians and later Persians started to protect their horses with massive metal armour. The ancient world called such riders *cataphracts* or *clibanarii*. The heavily armoured cataphracts could attack cavalry archers before the enemy was able to deploy all their arrows, charging into attack against the front lines of the formed infantry.

The horses were protected on their back and sides with bronze and iron scale armour.³⁶ The armour had an opening for the saddle and triangular scales protected the horse's **rump**.³⁷

Persians used the Nisean horse bred in Media in the north western part of what is today Iran. Thanks to this horse they were able to increase the weight of riders, as the horse could carry a man in heavy armour. They also tried to protect the legs of the war horses with armour and in the 4th century the horses were given head and breast covering armour.

³² Moreover, the Greek aristocracy came to become fond of horse-riding and the ownership of a horse started being considered a sign of higher social status. There were two types of cavalry in Greece – light and heavy – each differently armed and equipped with different weaponry, whose tactics in battle depended largely on their deployment on the wings of a predominantly hoplite centre.

³³ Together with the saddle, Roman riders started using leather breeches, riding boots and stirrups.

³⁴ For a long time, people rode on horses without saddles, sometimes a piece of cloth or rug were used instead. The first evidence of a simple harness (piece of cloth tied around the horse), which preceded the modern saddle, comes from Assyria in 800–700 BCE. Also the Scythians used a harness resembling a saddle but without a rigid structure and without stirrups. These early forms of saddles increased the protection and comfort of the rider but enhanced the safety of the ride only very slightly. The Sarmatians, too, (around 300 BCE) used saddles equipped with additional girths that held the saddle in place. The development of saddles with a rigid structure was motivated by the effort to distribute the rider's weight more evenly on the horse's back and hence increase the horse's comfort and endurance. In Asia, rigid saddles with wooden frames were known as early as 200 BCE. In the west, the Romans were among the first to use rigid (four-horned) saddles in the 1st century CE. But these saddles also did not have stirrups.

³⁵ Units accommodated in garrisons set out on regular training marches where they practiced tactical deployment, pursuit, withdrawal and counterattacks in all kinds of environment so that the horses and riders would become used to fighting both on flat land and in difficult terrain. The riders received both infantry and cavalry training as they were often forced to fight as foot soldiers. As long as the Romans maintained this type of training, they had an impressive and well-performing cavalry.

³⁶ We have learned about this from reports about the archaeological find in the locality of Dura Európos in what is today Syria. Mikhail Ivanovich; BAUR, Paul Victor Christopher. The Excavations at Dura-Europos. Conducted by Yale University and the French Academy of Inscriptions and Letters. Preliminary Report of Second Season of Work: October 1928 – April 1929. New Haven: Yale University Press, 1931.

³⁷ Covers of the chest and neck of the horse have not been found, but it can be deduced what they looked like made of scales; late horse masks with eye protectors have been excavated at various sites of Roman settlement.

The riding horses bearing such a load had to be huge and strong. The armour of a cataphract could be carried only by well-fed horse, with a 152 centimetres withers height. Towards the end of the first millennium BCE, both the Sarmatians, who usually fought as cataphracts, and the Achaemenid Persians really did breed horses that meet this description. The Romans and later the Byzantines included cataphracts in their own armies.

In the militant Middle Ages the horses were widely used. The Vikings, who mounted their invasions also westwards, to Iceland for example, transported horses on their boats to be used either as a means of transport once the disembarked, or as a source of meat. Thanks to the Vikings, the history of horses in Iceland starts in the 9th century.³⁸

Warhorses are linked to the Mongols and their leader Gengis Khan during their campaigns of conquest when they followed the Scythian tradition of using horses this way.

The cavalry was a major force in European feudal armies and was almost exclusively composed of nobles, who alone had the means to purchase and maintain warhorses.

During the 'European' Middle Ages, the warhorse (Lat. *equus bellator*, *equus ad pugnandum*, *dextrarius*; French and English *destrier*) was used in battle or in jostling tournaments and was trained (and bred) to carry its master wearing armour and carrying arms into battle while being itself covered in armour and capable of galloping in, for instance, knight tournaments.³⁹ For a long time it was believed that this was a large horse as strong as a draft horse, but the prevailing view today is that it was a smaller animal (withers height approx. 150 cm.), which from the point of view of strength was comparable to a strong riding horse.⁴⁰

The destrier was a nobleman's horse.⁴¹ Although the knight (*nobiles*, *comites*, *rytíř...*) in armour was capable of fighting effectively also as a heavy-armoured foot soldier (during a campaign or defence of a fort etc.), his place (as period culture intended⁴²) was mainly in the saddle of a horse where, protected by high-grade apparel, equipped with superior arms and from childhood trained in riding and mastery of various weapons, he turned horse into one of the most terrible weapons on the medieval battlefield.

The destrier was employed in battle mainly until the spread of the use of gunpowder in the end of the 14th century; this resulted in the demise of knighthood and heavy armoured cavalry in the 16th century.

But the cavalry did not disappear from armies altogether. In Modern Age wars horses played an important role as the light cavalry⁴³ and in unit supply. It was in the 19th century that breeding programmes transformed local breeds and gave rise to new breeds which suited the needs of the cavalry and provided strong draught horses to pull supply wagons; it was also in the 19th century that the last great cavalry battle in history took place at Waterloo, where Napoleon was defeated, putting an end to the Napoleonic wars in which thousands of horses participated. But horses were still being used during the First World War.

³⁸ As early as 982, the Icelandic parliament, the Althing, adopted several laws including an act banning the import of horses to Iceland. Horses continued to be kept there in isolation, without input of new blood. It can thus be claimed that the Icelandic horse has now been a pure race for more than a millennium.

³⁹ Using horses in tournaments can probably be dated to the end of the 11th century. Tournaments lived on until the beginning of the 17th century.

⁴⁰ The breeds of ancient and early medieval horses were lighter and shorter than today. From approx. the 12th century the average withers height of a horse started increasing.

⁴¹ The destrier was valuable property and its training was long and demanding. If the horse's master could afford it, he used the horse exclusively in battle and tournaments (unless he had a second horse for jostling tournaments). Unless there was a threat of imminent danger, he rode a different, lighter horse when moving around, his armour was carried by yet another horse or mule or in a shared wagon. Poorer warriors (feudal retainers etc.) had to make do with a single cheaper, lighter and inferior horse.

⁴² Besides its utility value as a means of war and transport, the horse also provided the knight with a means of demonstrating his status. The horse singled its rider out in a demonstrative manner from the lower class of foot soldiers (and vassals generally).

⁴³ During the Napoleonic Wars, for example, Arabian thoroughbreds were the preferred horse of the cavalry.

It is important to point out that the modern era started with the European invasion of America on the other side of the Atlantic Ocean where the horse had become extinct 10 thousand years ago. Hence the indigenous civilisations and cultures of America developed without the presence of horses and therefore the native people allegedly believed that the rider and horse were one being – in any case, the horse evoked fear in the natives and in this sense horses with their psychological effect helped conquer America. During the Spanish colonisation a breed of free-roaming horses appeared in North America – the mustang, whose ancestors were the strayed horses of Spanish colonists.⁴⁴ (The name itself comes from the Spanish *el mestengo* – a wanderer without a home.)

7) The Horse As a Partner in Sport and Leisure

A breach occurred in the 19th century. Once the steam engine was introduced the horse started being used less and less to drive engines and transport people and goods. Progress in arms development decimated the herds of warhorses; horses were no longer of any use to the military.

Horses, however, acquired new purposes or, more accurately, some of the purposes horses had been meeting since time immemorial⁴⁵ were given a new life – the purpose of horses as welcome partners in equestrian sports and competitions, many of which have become officially recognised internationally as Olympic sports, or recognised by the International Federation for Equestrian Sports.⁴⁶ Due to the popularity of amateur and professional

⁴⁴ The first reports on mustangs date to the 16th century. At first, the natives took them for sacred animals. Later they started to hunt them and from the 17th century use them as riding horses and draught animals. Due to the favourable conditions on the American prairies, the mustangs proliferated (it is estimated that there were around 2 million of them in 1900) and as they were a nuisance to pastoral farms, they started being killed just like the bison. Their numbers dropped rapidly, but the authorities managed to stop this trend in the 1970s. Significant populations of mustangs now exist in Nevada, Wyoming and Oregon.

⁴⁵ See the following foot note with information on the presumed origin of the individual sport disciplines.

⁴⁶ One of the first equestrian sports originated most probably 2,500 years ago in the steppes of Central Asia where the Scythians played **horse polo**. Ancient Persia soon adopted this sport played by two teams from the Scythian soldiers serving in their armies. The game became very popular with the social elite and is mentioned in Persian poems. From Persia, the game spread to India as the entertainment of the nobility (and, of course, also further afield via Tibet to China and Japan), where in the 19th century the British learned how to play it from the Indian nobles. The game then spread to several other countries.

One of the sports which has roots in antiquity is **vaulting**. This is usually described as gymnastics and dancing on horseback and, like those disciplines, is considered more art than sport. It may be performed as a competitive discipline, but also non-competitively. As far as its origin is concerned, some believe that the roots must be sought in the games of the Roman circus where acrobats demonstrated their skills on the backs of galloping horses. Another supposition is that vaulting originated in Crete, where vaulting over the backs of bulls was practiced. In all cases, however, people have been presenting routines of an acrobatic or dancing nature on the backs or over the backs of moving horses (or other animals) for at least 2 thousand years. There are many references to jumping on horses also in the Middle Ages and the Renaissance, which, by the way, gave vaulting its name. Modern vaulting developed after the Second World War and became an officially recognised equestrian sport with its own European and World Championships. It is possible to compete in individual, pair or group categories and the competition comprises compulsory figures and free routines. To the earlier established equestrian sports, the Modern Age has added, for example, **horse ball**, which is a team ball game played by riders on horseback with the aim of scoring the highest number of hoops, i.e. throwing the ball through a 1 m diameter hoop. The game is based on a combination of horse polo, basketball and rugby rules and originated in the 1930s in France as a modern version of the Argentinian national sport of pato, invented in the beginning of the 17th century and banned in 1790 because of the high, sometimes deadly injury rate of the players.

Show jumping is an equestrian sport where a course with obstacles is laid out within a defined area. The rails of which the obstacles (fences) are built are mobile and will fall at a touch. The basic rule is for the horses and riders to overcome the obstacles in the prescribed order without the horse knocking down, avoiding or refusing to tackle the obstacles.

Although already Xenophon (see elsewhere) compiled the principles of horse-riding, which were then perfected over the years, written sources on jumping over obstacles were very scarce prior to the 19th century. It is possible that the inception of these rules coincided with legislation adopted in the UK, regulating the rules of chasing game and stipulating *inter alia* a rule binding the riders to follow the dog pack, which meant that they had to overcome obstacles on the way on horseback on a route 'marked out' by the dog pack during the chase. The number of chases over obstacles increased both on the

continent and in Britain when agricultural land started being enclosed. The first show jumping competitions were held as early as in the second half of the 19th century.

Dressage is a sport discipline based on the mutual harmony and coordination of horse and rider. The objective of dressage is to perfect the movement of the horse, prepare (ride out) the horse to make it able to carry its rider lightly, to be flexible, balanced, to have the desired musculature and react to the slightest tips from its rider. Competitions prescribe a set of dressage routines divided into several levels of difficulty, which the rider and horse must perform as precisely as possible in the prescribed sequence. Dressage is an art defined as the exhibition of the 'rider-horse' pair and is often considered an art because it is based on the search of beauty of movement. In its top form, dressage is recognised as an Olympic discipline. The material reasons for the introduction of dressage are linked to the use of the horse as a warhorse, which unavoidably required the horse to submit totally to the wishes of the rider, to be able to fulfil its role as an important player in the battle. Horsemanship played not only a practical role in the training of horses, it also acquired an additional dimension – the rider discovered the possibility of cultivating joint movement towards elegance. The horse is thus trained in movement and the concept is of a higher order than if it would have been trained for high performance only. Dressage riding of this kind can be seen today in classical horsemanship and the High School of the Spanish Riding School in Vienna or at the French National Riding School in Saumur where it takes the form of a classical military equestrian art.

The origin of dressage lies in the school of classical horsemanship and has developed over several centuries influenced by military horsemanship. The ancient Greeks, for example the warrior Xenophon, wrote several works on the breeding and training of horses. They became an inspiration for later times. The father of classical horsemanship, Francois Robichon de la Guérinière (1688–1751), produced a new manual of the *Ecole de la Cavalerie*, which became the basis of classical horsemanship and the High School of the Spanish Riding School Vienna in 1572.

The 20th century has also brought us the **western riding school**, which developed from activities carried out at cattle ranches in America. (From the time of the first Spanish colonists in the regions of present-day Mexico and south western USA, ranchers needed to work on horseback when herding their cattle. The cattle were often kept in large open areas, which meant that the cowboy needed a very calm, reliable, hardy and agile horse, capable of working long hours and able to start out at full speed after a straying cow or stop suddenly in the middle of gallop and switch immediately to a different direction. As the cowboy needed one hand to handle the lasso, drive cattle or even to shoot, the horse was steered mainly with the feet and seat and the reins were used by one hand only.) Informal presentations and competitions demonstrating perfect horsemanship developed over time into a branch of sport, which today includes, besides reining, also cutting, working cow horse, and many other western disciplines. Western equestrian sport spread from North America to the whole world. In competitions emphasis is laid especially on the versatility of the horse and rider. A very old horse sport discipline is **endurance racing**. It is basically a long-distance (20 km to 160 km per day, or 2 x 100 km in two days) clock testing horse race. The measured run must be as fast as possible, but according to current rules the horse must at the same time remain in perfect health, which is checked by a veterinary. Endurance racing is currently a recognised equestrian sport and as such is represented at the World Equestrian Games. The roots of endurance riding are linked to the need to communicate and pass messages from one place to another as fast as possible. (Historical mail services in Europe and North America support this view of the history of endurance riding. But it was the postal services in Asia, especially China and Mongolia, that were the first to be based on overcoming large distances on a galloping horse, and that from the 4th century BCE, and the Mongols from the 13th century CE.) The army, too, had an interest in endurance riding in the open terrain. To conquer extensive territories, the army needed horses capable of covering large distances and for this they had to be fast and robust. Mongolian troops could serve as a good example. The first endurance racing competitions took place in the modern era, in the 19th century in USA, Australia and Europe, at that time, however, without regard to the health of the horse. One of the oldest sports is **horse racing**. Horse racing is a race in which the participants try to get to the finish first and in this way demonstrate the performance of the horse, which is important these days for possibly retaining the horse later at a stud farm for breeding. Horse races are now held at racecourses. They are divided into flat races, steeplechases and harness races. The principle of the horse race - to find which of at least two horses is faster at a given distance - has not changed since antiquity, bearing in mind that horse races were held by all the civilisations of the Ancient World since the earliest times; archaeological sources show that they took place in Egypt, Babylon, Syria and Ancient Greece where they were a part of the Olympic games and Athenian Pan-Hellenic games. In Ancient Rome horse races and chariot races (see further) were a business affair – and this has not changed much in current times: the point is not only the business interests of the owners of racing horses or harness horses (the market value of a champion is of course much higher than that of an outsider), but also the betting industry, which, because of its potential lucrativeness, is sometimes linked to crime. Chariot races, the predecessor of modern harness racing, were a horse sport that enjoyed the greatest popularity and prestige in Ancient Greece, Rome and Byzantium. The phenomenon of chariot racing also found its place in mythology, for instance the myth of Pelops (see elsewhere). Horse racing is still here today. The reasons were, first, that riders improved their skills by participation in games and races (and by training for them), which was important, amongst other things, in the army and, second, equestrian competitions (the same as tournaments) were welcome entertainment for large audiences. It was the popularity of racing (and other historical equestrian sports, such as dressage, endurance racing) over the centuries that facilitated the preservation of skills that would have otherwise disappeared with the decline of the use of the horse for military purposes. Carriage or **harness racing** is a specialised sport in which the competitors – drivers – do not ride on horseback, but in a special cart pulled by horses (in other words, they ride in a carriage). This competition tests the driver's skill on a defined track. The cart must overcome various artificial obstacles and special cart gates. The **versatility competition** (also called 'military' in the past) is one of the most demanding equestrian disciplines. Military was originally

equestrian sports and competitions, breeders in the last century have changed their objective – instead of the versatile utility horse they started breeding specialised sport breeds for racing, horse jumping and dressage.

There are other 'entertainment' features of the horse that have been preserved from the past and are reflected in its interactions with man: the horse is capable of providing a good show – remember the circus, both circus dressage and vaulting, which of course is not considered a sport discipline in that context.

The role of horses in a hunt should be mentioned too - probably the most ancient form of using horses to catch game. Over the centuries hunting with horses has lost its genetically primary function and has changed, especially among the social elites, into a welcome pastime and social event combined with sport - for example during the hunts that were so popular with the upper strata in the 19th century.

Besides using horses for sport and entertainment, people in the 20th and in the early 21st century also seek in horses a counterweight to an overtechnicised and socially alienated world: the horse is a living creature, a part of nature, and through his partnership with the horse man, too, can return to nature and its rhythm; the horse, however, is also a partner with whom to spend free time, one that can help a person overcome feelings of loneliness.

8) The Horse As the Subject of Works of Art, Legends, Myths and Rituals – from 35 thousand years BCE to date

Horses are often present in legends, myths and faiths. There has already been mention of the depictionss of horses in cave paintings dating back to the stone age (see chapter The Horse As a Source of Meat); a white horse is the subject of the Uffington geoglyph dating to the Bronze Age – approx. 3000 BCE,⁴⁷ horses were also a part of funeral rituals as proven by archaeological finds in the kurgans of nomadic peoples.

Antiquity expanded further the presence of the horse in myths and fables: the winged stallion, the son of the sea god Poseidon and of Medusa, and the symbol of poets - Pegasus, who was the ally of the hero Bellerophon; horses harnessed to the chariot of god Helios in the Phaethon myth; Poseidon's horses know from the myth about Pelops and his courtship, and even Bucephalus, who could be tamed only by Alexander the Great, and other mythical horses. Antiquity gave birth to Centaurus – half man, half horse. India introduced the white horse as one of the embodiments of Vishnu and a horse-headed diety, Hayagriva, the Hindu deity of knowledge and wisdom. It also gave birth to Kanthaka, the horse of Prince Siddhartha, the later Buddha, and traces lead to India as the place of origin of yet another legendary animal – the unicorn, which also had some of the attributes of the horse physiognomy and was considered a symbol of purity by medieval Europe.

In ancient times, Europe, too, attributed a special diety to horses: the goddess Epona, of Celtic provenance, whose attribute was a horse, was worshipped as the domestic goddess of horse

devised because of the need to test the aptitude of horses for meeting the demanding requirements of the army. In an era when the horse was the army's main means of transport, it was important to possess staunch and strong horses, good at dressage to make the horse reliable in all circumstances. To check these abilities special tests were designed for endurance and overcoming obstacles. (Hence the name 'military' for this discipline in northern and eastern Europe). Over time, this testing changed into a sport discipline. The first competitions of this kind were held in France after 1900; military was included in the program of the Olympic Games for the first time in 1912 in Stockholm. The competition comprises dressage, show jumping and cross-country and is sometimes referred to as the equestrian triathlon.

⁴⁷ The most common view is that the White Horse at Uffington is a tribal symbol and has some relation to the builders of the Uffington hillfort. Another hypothesis is that the depiction could point to the cult of a white, maybe sun horse in Celtic Britain.

breeders and more commonly also as the goddess of plenty and prosperity. This goddess was adopted from the Gauls by the Romans, who often incorporated Gauls into their cavalry units. In the military regions of the Rhine and the Danube she was worshipped by the commanders of the Roman cavalry, who asked her to protect riders and their horses.^{48 49} The Norse pantheon also had its horse – the eight-legged Sleipner of the god Odin; the sagas, too, involve a number of horses.

The Middle Ages conceived its horses in connection with legend or religious faith, such as the Four Horsemen of the Apocalypse – a frequent subject of the graphic arts, the horse of St. George and St. Martin's horse, who in central European ethnography is always presented riding a white horse, or Babieca, the horse of El Cid,⁵⁰ or Al Buraq, the horse associated with the Prophet and mentioned in Islamic mythology, or the horse Haizum, who according to Islamic tradition served the Archangel Gabriel and could fly from planet to planet.

Horses are also the subject of the graphic arts. We see this in all periods: for example in the mosaic depicting the abduction of Persephone on the tomb inside the Kasta tumulus in Amphipolis, or on the quadrigas of the bronze volute krater of Vix; the destriers of medieval knights entered art and literature *inter alia* in the legends of the Arthurian cycle or in illustrations of medieval manuscripts (e.g. the *Hortus deliciarum* in the 12th century, the manuscript by Peter of Eboli, also in the 12th century, or the *Codex Manesse* from the beginning of the 14th century) or in sculptures (such as the statue of St. George at Prague Castle dating to 1373).

The significance of the horse in the Middle Ages is reflected in its reflection in that most esteemed of places – the coats of arms of nobles and towns, and sometimes in their seals, although the principle of heraldic symbols is much older. The picture of horses can be also found on another symbol of power – coins⁵¹ and stamps.

Nor did the art of the modern era forget the horse: we encounter it in numerous works of fiction (Don Quijote's Rosinante, to name just one) and in works of graphic art, such as the paintings of Philipp Ferdinand de Hamilton, Johann Georg de Hamilton, Eugene Delacroix, Edgar Degas or Théodor Géricault, George Stubbs, and also Salvator Dalí, Franz Merel and others; the horse figures in portraits of rulers and military commanders (the equestrian portrait of Charles V by Titian for example). As for sculptures, here too the horse is frequently a part of equestrian statues, starting with the mounted statue of Marcus Aurelius in Rome or of the condottiere Gattamelata by Donatello in Padua and, finally, the rider statue of St. Wenceslas on Wenceslas Square in Prague. The sculptures decorating many buildings would be hard to imagine without their horses and teams – the Parthenon frieze, for instance.

Also folklore and folk art could not do without the horse – there are horses in army, recruiting, work, love and other songs; the horse is the protagonist or one of the characters in many fairy tales and fables⁵² and the horse motif is present in the ornamentation of certain objects of folk craft, from ceramics to woodcarving and toy making.

9) The Horse As a Messenger

Ancient Chinese were probably the first to develop a network of post stations with horse couriers, a phenomenon justified by the need to pass information quickly within an empire

⁴⁷ She also found great response among the popular masses of Rome. Traces of her worship (statuettes, votive inscriptions) have been found as far as Plovdiv in Bulgaria, and also in Romania and Yugoslavia.

⁴⁹ Another being that was probably also of Celtic provenance was the mythical and terrible Kelpie, encountered for instance in Scottish folklore, who took on the form of a horse or a horse with a fish tale.

⁵⁰ Rodrigo Díaz de Vivar (1043–1099) was a Castilian noble and Spanish military commander, whom the Moors called El Cid (meaning 'very strong and brave') and the Christians El Campeador ('warrior').

⁵¹ E.g. gold Celtic stater coins etc.

⁵² Indeed, sometimes the horse is an evil character, for example in some narratives the devil rides a black horse, ghosts, such as headless knights, ride horses, black fiery stallions are sometimes harnessed to coaches carrying sinners to hell, etc.

spreading over a vast territory with a solid administrative system. During their invasion of China in the 13th century CE, the Mongols became acquainted with the system of organising long-distance mail carried by horses. The connection between the nomadic culture of the Mongols, which valued horses very highly, and the principles of the Chinese postal communication important for the administration of the empire, especially the system of stations for changing spent courier horses, enabled the Mongols to control their enormous empire, although the Mongols used the system predominantly for military purposes.

Under the successors of Genghis Khan the system of post stations spread to Iran, Iraq, and later Syria.

Following a decline that started with the fall of the West Roman Empire, the system of post couriers on horseback was reborn in Europe at the turn of the Middle Ages and the modern era. The post riders represented a system of distribution of horses and riders for the purpose of delivering messages. This existed in various periods and in various places (see above) and here it is referred to as the networks of regular services provided at a certain level by the state or on the basis of a permit issued by the monopolistic state. These networks were based on established routes ('mail roads') and points. Unlike other variants of the use of the horse for delivering messages, post couriers collected and delivered mail throughout their route and they met at assigned places and set times with other couriers with whom they exchanged the mail to be delivered. The correspondence could thus be delivered relatively quickly within a large territory on long routes for a relatively favourable price. A typical Modern Age feature was that the couriers delivered private mail as well. This, and also the fact that they worked according to a set time schedule distinguished them from older systems designed exclusively to serve the government or the military.

In Europe, this system started being used as early as in the 15th century in Italy, which was closest to the legacy of the Ancient Roman *cursus publicus* system.⁵³

In France, this service was used from the time of Louis XI, who decided to introduce it, including horse changing stations, to receive information from (and give his instructions to) the whole kingdom as fast as possible while ensuring the necessary confidentiality. He thus adopted the principles of the Roman *cursus publicus*; the French service bore the name *Service des chevaucheurs du roi*. Post riders were able to cover 40 km or more per day if they used reharnessing stations, which were 28 km apart. (At the time of the greatest boom of the French horse post in the second half of the 19th century, there were approximately 40 thousand horses available to deliver mail daily all over France.)

In territories ruled by the Habsburgs the system developed from the middle of the 16th century thanks to the efforts of the Thurn Taxis family, although it did have a predecessor in the Holy Roman Empire – from 1274 the Hansa (Hanseatic League) disposed of a regular post service between the Hansa towns and Hansa controlled castles. In Thurn Taxis times, the individual horse changing stations were approximately one day apart by horse.

In Elisabethan England the system of postriders serviced a wide range of settlements and in spite of restrictive government policy was used also for private purposes (in France this had been possible since the rule of Henri IV); one stage was approximately 10 miles after which the horses were changed.

Around 1660, the chaise de poste appeared – a light, two-wheeled cart drawn by not more than two horses, originally developed from the calash designed for the transport of one

⁵³ *Cursus publicus* was a service designed for the transport of messages, tax yields and officials in the Roman Empire and later adopted by the Byzantine Empire. The institution of *cursus publicus* was operated until the decline of the West Roman Empire but some parts of the system were adopted by successor states (for example Charlemagne's empire had three such routes).

The original purpose of the *cursus publicus* was to enable the fastest and easiest communication possible with all the provinces of the empire. The original relay-type manner of passing on messages was replaced by a single courier, who delivered the message from sender to addressee and had the option of changing a spent horse for a rested one at the harnessing stations. In the Roman system there were horse changing stations every 10 miles.

person; the calash itself was based on a litter. It was its lightness which predestined it for carrying the post with post horses changed at the harnessing stations. It could also carry one to two passengers. Later, joint transport of post and passengers (4 to 8 people) was provided in France by the *malle-poste* (mail coach in Britain) using four-wheeled carriages.

The mail coach appeared in Britain in 1784. This was a closed carriage for the transport of 4 passengers and others could sit on the coach box next to the coachman. In the rear part of the coach there was a large trunk for the mail and a seat for the postilion, who unlike his continental counterpart was not allowed to drive the coach, which moved at a speed of 8 to 13 km/hour. Speed was more important for the mail coaches than passenger comfort.⁵⁴

The French *malle-poste*, which replaced the two-wheeled carts used during the rules of Louis XV and XVI, could transport passengers too, besides the mail. These were heavy, closed, sprung, four-wheeled carriages drawn by a team of four horses. The front part, the *cabriolet*, was where the coachman and one passenger sat, the central cabin was for three passengers and at the back there was a chest for the mail. The *malle poste* had the privilege of being allowed to move at a gallop because of its primarily mail carrying function. It was used until the middle of the 19th century.⁵⁵

B) Conclusion

The preceding pages have indicated a lot about the importance of the horse for man. The role of the horse culminated in the 19th century. Its use then was widespread: horses provided all the transport, both of freight and of persons, they did all kinds of hard work in the army, agriculture and the emerging industry and no factory could do without a stable. Horses were hauled deep down under the ground into mines to pull bogies full of excavated coal and ore through the adits. In towns, horses turned the wheels of trade, every town had its 'movers' and 'dustmen' and horses were used by the police and customs officers.

Horses thus played a key role in the development of the modern world. The use of horses brought about a revolution in agriculture, it supported the development of towns, improved and sped up transport and communication, but also opened the road to imperialism and warfare. Horses contributed to medical breakthroughs and until this day remain an icon of the development of human civilisation.

The arrival of the steam engine and later of the internal combustion engine and electrical motor, the development of automotive transport and the use of the farm tractor heralded the decline of horse-driven vehicles and machines in most industrialised countries at the end of the 19th century and during the 20th century. The development of military technology resulted in the gradual elimination of horses with their vulnerability in battle.

These changes went hand in hand with a transformation of the users of horses: army cavalrymen, passengers on horses or in stage coaches disappeared, also postriders disappeared and the farmers who use horses to pull a cart or plough are now few. They have all been replaced by horse riders, male and female, often hailing from towns, who seek, and find, in horse riding contact with nature and an opportunity for physical exercise.

As has been repeatedly noted – the bond between man and horse has changed substantially in developed countries in the 20th century when technological progress has led to the most recent transformation of the functions fulfilled so far by the horse in people's lives. Nevertheless, the horse continues to be a very important symbol, which is confirmed by that

⁵⁴ Personal transport was provided at that time mainly by stage coaches, the counterparts of continental stage coaches.

⁵⁵ Post couriers used special sound signals: the signal trumpet was used by coachmen and the postilions on the coaches when approaching the station to let the staff know that they should prepare the mail horses for harnessing (and how many horses) as well as the mail (and tell the passengers to get ready for departure). In earlier times, when travelling by night, express couriers would blow their horn to alert the guards of the city gates to open them, as the royal postal service was superior to town privileges. Signals during the ride warned all other road users to give way to the mail, which had priority.

basic characteristic of the human race – speech. In speech we still find widely adopted and common idioms referring to the horse and its features: ‘to work like a horse’, ‘strong as a horse’, ‘on his horse’...

Horses are entering the 21st century with a strengthened sport, therapeutic, guarding, security and social mission.

C) Resources

- MAHLER, Zdeněk. *Člověk a kůň*. České Budějovice: Dona, 1995. ISBN 80-85463-52-0.
- ZEDER, Melinda A. et al. *Documenting Domestication: New Genetic and Archaeological Paradigms*. Berkeley (Kalifornia): University of California Press, 2006. ISBN 978-0520246386.
- OUTRAM, Alan K. et al. The Earliest Horse Harnessing and Milking. *Science* [online]. 2009, 323 (5919), 1332-1335 [vid. 2019-02-18]. ISSN 0036-8075. Dostupné z DOI: 10.1126/science.1168594.
- STERCKX, Claude. *Éléments de cosmogonie celtique*, Bruxelles. Bruxelles: Éditions de l'Université de Bruxelles, 1986. ISBN 978-2800409009.
- GAZAGNADOU, Didier. *La poste à relais en Eurasie: La diffusion d'une technique d'information et de pouvoir Chine - Iran - Syrie – Italie*. Paris: Éditions Kimé, 2013. ISBN 978-2841746149.
- JOBE, Joseph. *Au Temps des Cochers: Histoire illustrée du Voyage en Voiture attelée du XVe au XXe siècle*. Lausanne: Edita - Lazarus, 1976. ISBN 978-2880010195.
- ANGLIM, Simon. *Bojové techniky starověkého světa*. Praha: Deus, 2006. ISBN 80-86215-88-1.
- JOBE, Joseph. *Au Temps des Cochers: Histoire illustrée du Voyage en Voiture attelée du XVe au XXe siècle*. Lausanne: Edita - Lazarus, 1976. ISBN 978-2880010195.
- OLSEN, Sandra L. In the winner's circle: The history of equestrian sports. In: OLSEN, Sandra L. (ed.). *Horses Through Time*. Colorado: Roberts Rinehart Publishers, 1996. ISBN 1570980608.
- BINDER, Sibylle-Luise a Gabriele Kärcher. *La Vie fascinante des chevaux*. Paris: Larousse, 2002. ISBN 978-2035602893.
- ROSTOVITZ, Michail Ivanovič a Paul Victor Christopher BAUR. (eds.). *The Excavations at Dura-Europos: conducted by Yale University and the French Academy of Inscriptions and Letters. Preliminary Report of Second Season of Work, October 1928–April 1929*. New Haven: Yale University Press, 1931.

KLADRUBER HORSE BREED

The Kladruber horse is a robust warmblood breed⁵⁶ with a large rectangular frame, big vivid eyes in a convex head set on a high neck. It is powerfully muscular, with strong bones and steep shoulder blades enabling the typical high-action movement of the thoracic limbs (the majestic gait is especially prominent in trot, resembling the ceremonial march of a human). These have been the typical and essential features of a gala carrossier. The Kladruber is considered to belong amongst the noble horse breeds.

The breed originated in the mid- 16th century, when the then very fashionable and popular old Spanish horses were imported to Kladruby nad Labem. The old Spanish stock was indispensable for ceremonial events at the Habsburg courts. In the 17th century, the old Italian Neapolitan horses were cross-bred with the old Spanish stock to accentuate the features of a sturdy gala carrossier, a draught horse for heavily decorated coaches (carrosses) used by the contemporary elites. The National Stud Farm in Kladruby nad Labem is the only surviving stud farm dedicated to breeding horses that were used to pull imperial coaches during courtly ceremonies.

The closest relative of the breed and the one most resembling it is the Lipizzaner, probably also originating from the old Spanish and Italian bloodline. The differences in exterior of the two, Kladruber and Lipizzaner are due to the different purposes and the environment in which the breeding took place. The Kladruber is a carriage draught horse and therefore it is taller and more robust, while the Lipizzaner, a saddle horse, has a smaller frame. In breeding of the Kladruber, the gene pool of the old Italians was more accentuated in order to reach a more massive and larger frame. The Lipizzaner on the other hand, has more of the old Spanish blood and thus a smaller and less robust frame. The Lipizzaner comes from the Lipica (today Slovenia) Stud Farm, also a former Habsburg imperial farm as was the stud farm at Kladruby nad Labem. Under the Habsburg monarchy, the two farms exchanged breeding studs to improve the features of the other breed. As a result, sire lines were established (e.g. the Kladruber studs Maestoso and Favory sired breed lines of the Lipizzaner), which then bore the sires' names. As only a limited number of horses was needed for the emperor's exclusive use, the breeding of the Kladruber did not spread to the other parts of the monarchy, as opposed to the Lipizzaner. Consequently, today's Kladruber population is also limited to mere 1800 horses (the most valuable 500 are kept in the National Stud Farm at Kladruby nad Labem). There are about 10 000 Lipizzaner worldwide, bred also on foreign soil.

The Kladruber contributed to the breeding of the Lipizzaner, the Trakehner and the Nonius, respectively. Besides the Lipizzaner, the other related breeds are those which descended from the old Spanish and Italian horse breeds, namely the Pura Raza Española (P.R.E., Spain), the Lusitanian horse (Portugal), the Friesian horse (the Netherlands), the Murgesse (Italy), the Knabstrupper and Frederiksborg⁵⁷ (both Denmark), the Orlov Trotter (Russia)

The Kladruber population is small, there are about 1800 horses worldwide, thus representing a mere 0,003% of the estimated worldwide population of horses (60 million animals). The majority of the Kladrubers are kept in the Czech Republic, several hundred are abroad, with some exceptions all of them in Europe. There are about 500 dams. Continuous and systematic breeding of the Kladruber is exclusively limited to the Czech Republic, with the key role being played by the National Stud Farm in Kladruby nad Labem, the only big stud farm keeping over 500 horses and producing 65% of the foals

⁵⁶ The warmblooded breeds are part of the Eastern (Oriental) horse breeds group, with the Kladruber belonging to the Arab-type sub-group.

⁵⁷ The original Danish breed of carriage draught horses (Frederiksborger horse) does not exist and the stud farm which gave its name to this breed does not serve its purpose. All other breed mentioned in the text still exist.

born yearly in the overall population. There are also several smaller private breeders (a majority of them resides in the Czech Republic and produces a maximum of 5 foals yearly. In recent years, there have been a number of births in Poland yearly and some in Slovakia, but not on a yearly basis).

In the past, the breeding of the Kladruber was also influenced by fashion. However, in the 18th century the original multi-colour varieties were abandoned and only the grey and black population breeding has continued to this day, with an interruption in the breeding of the black population, which almost became extinct in the thirties of the 20th century and had to be regenerated.

The National Stud Farm in Kladruby nad Labem focuses on the so-called maintenance breeding, accentuating preservation of the characteristic features of the gala carrossier. As the Habsburgs were very conservative, the Kladruber breeding was not influenced by the fashionable English horses in the 19th century. Thanks to that and thanks to the clearly defined breeding goals, the Kladruber remained intact and has maintained its original baroque appearance and features of its forefathers (the old Spanish horse), which had influenced horse breeding in the larger part of Europe from the end of the middle ages to the 18th century and became extinct afterwards.

The contemporary maintenance breeding is not influenced by fashion trends and/or commercially oriented efforts focusing on breeding of the modern horse breeds for sport, i.e. accentuating the performance in a given sport discipline, putting aside the typical features and blurring the differences between the breeds, leading eventually to the extinction of the historical breeds and creation of a uniform worldwide commercial hybrid.

The National Stud Farm at Kladruby nad Labem keeps the only existing worldwide stud book of the Kladruber horse. It is a closed stud book, i.e. no other breed than a Kladruber can be used for breeding. The National Stud Farm exports a third of its horses for sale abroad, mainly to Germany, Austria, Switzerland, Poland, Denmark, Sweden and last but not least to the Netherlands, to be used by the mounted police. The Kladrubers kept in other countries are not primarily used for breeding. The Kladruber lovers abroad purchase horses trained for different kinds of harnesses, team races, leisure and classical horsemanship. The Kladruber is very specific and its fans appreciate its unique stately exterior, the mechanics of its movement and its character.

A prominent client of the Kladruby nad Labem National Stud Farm is the Danish royal family, importing the grey horses for the ceremonial coach team since 1994. Pure grey horses are required, with the correct built, good movement mechanics and first and foremost, a well-balanced nature. The Swedish royal mounted guard musicians have used the Kladrubers as saddle horses since 2004. Grey, elegant large frame horses are required for the purpose. All horses have undergone a rigorous check evaluating their health, nature and exterior.

In order to preserve the Kladrubers, it is not only necessary to take care of the horse breed itself, but also of the stud farm specific conditions, especially of its landscape that formed the breed. Besides that, the traditional breeding procedures must be also preserved.

STUD FARMS IN THE PRESENT WORLD

The majority of historically important studs and stud stations currently struggle for survival: in some countries, the challenge is faced by switching to horse keeping and breeding for commercial purposes, redefining the original purpose and even closing the establishments. Some owners, including the state owners, opt for limiting the activities of the farms, including reducing the numbers of horses kept. Other farms are transformed into educational and/or research centres. State studs must justify their existence to continue operating when this can well be done by private breeders. National stud stations are under competitive pressure of the private stud-station owners. The National Stud Farm at Kladrubby, however, has been spared this challenge.

In 2010, the National Stud Farm at Kladrubby nad Labem was changed from a state-owned company into a so called “budgetary” organisation – funded from the national budget. The essence of the change was the fact that instead of having a business company running the Nominated Property a new organisation (museum) was established to manage the national heritage site consisting of the buildings and the surrounding land⁵⁸, as well as the core herd of the Kladruber horses kept on it; this organisation thus being the Site Manager of the Nominated property.

Hence, the traditional purpose and methods have been preserved. The National Stud Farm receives an operational allowance from its founder (The Ministry of Agriculture of the Czech Republic), covering the difference between the costs and the revenues. Thanks to this, the Site Manager of the Nominated Property does not have to switch to commercial methods and can continue using more costly, but traditional and authentic methods, which makes them unique in comparison with the other stud farms. Therefore, it is not necessary to upgrade the premises so that the breeding is more efficient, less labour-intensive and consequently, cheaper. Besides preserving the national heritage and the breeding, the goal of the Nominated Property Site Manager is to maintain and present to the general public the genuine purpose and operation of the stud farm rather than generate profit from the stocks' sale, agricultural production or tourism. However, the stud farm is not a mere museum demonstrating some of the traditional activities but it is a fully functioning stud farm in its original form. Therefore, the National Stud Farm at Kladrubby nad Labem is not being pushed by its founder to use the land more intensively (e.g. by changing the vast grassland into more profitable arable land), or to put large modern riding schools or sports arenas in the historical landscape to maximise the income from tourism, as is often the case with other stud farms.

The stud farm presentation unlike the presentation of other properties emphasises its day-to-day operations which have not changed since the time when it was the Imperial stud farm, including its cultural landscape management which has been preserved close to its original design. It is not desirable to adapt the operation to the needs of visitors, just the opposite - the visitors should adapt to the stud farm operation routine. Then they are rewarded by being able to “experience” the real life at the stud farm in its authentic form, rather than watching an “artificial” presentation that may bring more visitors but could not possibly be authentic.

⁵⁸ See the Nomination Dossier, Chapter 7.b.1 Documents referred to in Chapter 5.b.

EUROPEAN STATE STUDS ASSOCIATION (ESSA)

The European State Studs Association (ESSA)⁵⁹ was established in 2008 as an association of more than 30 most eminent national studs⁶⁰ and stud stations⁶¹ in 14 European countries, namely: Piber (Austria), Kabiuk (Bulgaria), Kladruby nad Labem, Písek, Tlumačov (Czechia), Ypäjä (Finland), Le Lion d'Angers, Le Pin, Pau-Gélos, Pompadour, Rosières-aux-S., Saint Lô, Uzès (France), Dillenburg, Marbach, Neustadt - Dosse, Redefin, Schwaiganger (Germany), Bábolna, Hortobágy, Mezöhegyes, Szilvásvárad (Hungary), Tully - Kildare (Ireland), Janów Podlaski, Michalów, Sieraków (Poland), Alter Real (Portugal), Romsilva (Romania), Topolčianky (Slovakia), Lipizza (Slovenia), Flyinge (Sweden), Avenches (Switzerland).

National Stud Farm at Kladruby nad Labem is an active member of the ESSA.

The main mission of the ESSA is raising awareness of the current and future role of traditional stud farms as custodians of the living national heritage, namely, horses. The studs also play an important role in preservation of the historic architecture and landscape heritage and as centres of expertise and education. A very special task of the stud farms is the promotion of national horse breeds, even if they themselves are not the breeders, with their typical features cultivated for centuries through focused breeding effort. The ESSA shows the different conditions under which the breeds came to exist, their traditional breeding and training methods

It pursues these goals by participating in international exhibitions and competitions, where the members are jointly presented under the auspices of the association. The members present the horses, their grooming and their gear including different types of harnesses, saddles, coaches and the uniforms used by the stud personnel.

Besides promoting the traditional values and cultural heritage represented by the studs and stud stations activities, the ESSA participates in European law-making, supports equine welfare, educational programs and exchanges, sharing information and expertise among its members.

The seat of the ESSA is the Principal and Federal Stud in Marbach, Germany. The current president of the European State Studs Association is the manager of the Marbach Stud, Ms Astrid von Velsen-Zerweck.

The annual general meeting is always held at one of the member studs. The National Stud Farm at Kladruby nad Labem is a regular participant of the meetings and hosted the last members' meeting on March 22–23, 2018, where the Lipizzaner breeding stud farms presented their preparation for nomination of the “traditional Lipizzaner breeding methods” for the *Representative List* of the *Intangible Cultural Heritage* of Humanity, based on the *Convention* for the Safeguarding of Intangible Cultural Heritage. The hosts presented their preparation for the nomination of the “Landscape for Breeding and Training of Ceremonial Carriage Horses at Kladruby nad Labem” for the UNESCO World Heritage List.

⁵⁹ For more detail see <http://www.europeanstatestuds.org/en/>.

⁶⁰ Many of the member stud farms operate today as stud stations; others abandoned the complex activities of a stud farm and only offer selected services, e.g. stabling of privately owned horses, organising sports events, working in research or training of riders and horses, etc.

⁶¹ The difference between a stud farm and a stallion stations is explained on page 6 in Response to the ICOMOS Request for Additional Information Contained in the Interim Report from 21st December 2018, ref. no. GB/AS/1589/IR.