From mules, horses and livestock to companion animals: a linguistic-etymological approach to veterinary history, mirroring animal and (mainly) human welfare

Van paardenmeester via veearts tot dierenarts ... of hoe een etymologische kijk op de geschiedenis van de diergeneeskunde het welzijn van dieren en (vooral) mensen weerspiegelt

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ABSTRACT

In some languages, major changes in the veterinary profession are mirrored in the names used by those engaged in this branch of medicine during different periods of history. These names were most often derived from the animal species that were of predominant importance in any given period. The terms *veterinarius*, *mulomedicus* (mule healer) and *hippiater* (horse doctor) reflect the major importance of these animals in Roman and Greek antiquity. Draft and pack animals (Latin: *veterina*) played a major role in the improvement of mankind's living conditions. Without their help, men and women had to do all the heavy labor with the help only of primitive instruments, and they had to transport all burdens themselves.

Horses became of paramount importance in warfare. Chivalry (cheval in French: horse) attained a high status in mediaeval society. This high esteem for horses, horse riding and everything associated with it continued even after the horse had lost its military significance. We see this in terms such as maréchal in French (meaning both 'shoeing smith' and 'field-marshal'), marshal in English, maarschalk in Dutch, derived from an old Germanic word for 'keeper of the horses' but originally meaning 'horse boy'. Similar titles were paardenmeester for 'horse master' in Dutch, and Rossarzt or Pferdarzt in German.

The terms *veterinarian* and *vétérinaire*, which are generally used in English and French, do not differentiate between the species and types of animals involved. This term, derived from the learned Latin *medicus veterinarius*, was not created by the public, but rather was promoted by the early veterinary schools and professional organizations. Its supposedly general meaning was most probably a factor that guided the choice of its use. Nobody alluded to its primary significance (etymology) involving the care of 'beasts of burden', and it is a pity that almost no one any longer is aware of this. The enormous role that these humble animals once played in the liberation of mankind from slavish labor, and from slavery itself, remains practically unknown. The term 'veterinary' has lost nothing of its forgotten original content. Knowledge about this may help to rehabilitate the humble donkeys, the mules and other beasts of burden who delivered mankind from much arduous labor ... and became our slaves.

SAMENVATTING

In meerdere talen weerspiegelen de namen gegeven aan de geneeskunde van de dieren en haar beoefenaars belangrijke verschuivingen. Meestal hebben deze veranderingen te maken met de diersoorten die van overheersende betekenis waren in bepaalde perioden. De termen *veterinarius*, *mulomedicus* (muilezelgenezer) en *hippiater* (paardenarts) ontstonden in de Latijn- en Griekssprekende wereld, waar ezels, muilezels, muildieren en paarden heel belangrijk waren. Last- en trekdieren (Latijn: *veterina*) verrichtten de zware arbeid die de mensen voordien eigenhandig of met primitieve instrumenten zelf moesten uitvoeren. Ze droegen aanzienlijk bij tot de vooruitgang van de mensheid.

Paarden speelden een beslissende rol in de oorlogsvoering. Het ridderwezen ('ridder' afgeleid van 'ruiter') bereikte een hoge status in de middeleeuwse samenleving. Het paard, het paardrijden en alles wat er bij hoort, bleven hoog in aanzien ook nadat de militaire betekenis van deze dieren verdween. Dit zien we in termen zoals *maarschalk* (maréchal, oorspronkelijk paardenverzorger - staljongen) en *paardenmeester*; *Rossarzt* of *Pferdarzt* in het Duits.

In sommige Vlaamse en Waalse streken werd de term *artist* gebruikt. Deze werd in de Franse Tijd afgeleid van de eerste diploma's in de 'kunst' van de diergeneeskunde: uit het Latijn artis (genitief van ars) veterinariae. Een in het westen van het land populaire benaming was expert. Deze term ontstond in de tijd dat het enige onderscheid dat klanten konden maken tussen de officieel gediplomeerden en de andere beoefenaars van de diergeneeskunde (meestal hoefsmeden en castreerders) te vinden was in het feit dat enkel de eersten konden optreden als expert in gerechtelijke betwistingen en in officieel werk.

In de 20ste eeuw werd de benaming *veearts* (uit het Grieks archos en *iatros*: leidend genezer) populair. Opnieuw reflecteerde dit een grote verandering in de maatschappij. Duur kwaliteitsvoedsel werd goedkoper en meer algemeen verkrijgbaar door verbeterde productiemethoden in de landbouw en de sterk uitbreidende veeteelt.

De verhoging van de levensstandaard leidde ertoe dat het mogelijk werd veel zorg (en geld) te besteden aan 'niet-productieve dieren', zijnde de gezelschapsdieren. Dierenwelzijn werd actueel in een tijd overheerst door massale industriële veehouderij. Het is in deze context dat de veearts veranderde in *dierenarts*.

In het Frans en het Engels en in mindere mate in het Duits en het Nederlands bleef de term *veterinair* (*vétérinaire*, *veterinarian*, *Veterinär*) in gebruik. Deze benaming werd actief gepropageerd door de laat18^{de} en vroeg-19^{de}-eeuwse stichters van de eerste scholen voor diergeneeskundig onderwijs en de eerste verenigingen van gediplomeerden in dergelijke instellingen. Wellicht waren zij zich niet bewust van de etymologie van deze schijnbaar niet-diersoortspecifieke benaming ontstaan in de Romeinse tijd: betrekking hebbend op lastdieren (pakezels, muilezels en muildieren vooral). Eigenlijk is het jammer dat niemand daarvan nog weet heeft. De enorme rol die deze nederige dieren ooit speelden in de verlossing van het mensdom van slafelijke arbeid, van slavernij, blijft zo goed als onbekend.

INTRODUCTION

Today's veterinarians are engaged in a wide range of tasks involving a steadily increasing number of different animal species. The subjects of their occupations, the patients, vary greatly. Domestication has considerably changed their characters and their 'looks'. Dog breeding has produced both the Chiwawa and the Great Dane, all derived from the Wolf. Not only breeds, but also species of companion animals, animals accompanying man, or more accurately defined: animals used in this way or to that end by humans, has varied considerably.

In this contribution we take a look into written history, starting about two thousand years ago, in order to detect major trends in veterinary occupations. We will see that the changes in animal species involved in veterinary work reflect changes in human welfare. We witness an evolution from the slavery of many, if not the majority of individual humans and families in ancient



Figure 1. The making of 'veterina'.

'civilized' populations down to the present day situation in which many, if not most humans living in prosperous countries can afford to pay much attention to their own pet animals, to engage themselves in 'animal rights' movements, and ... to pay considerable veterinary fees for the health care of their beloved pets. Facing the complexity of the topic, we have restricted our approach mainly to linguistic facets of the issue. One inherent limitation of the present work lies in the limited number of languages with which the (native Dutch speaking) author is more or less familiar.

VETERINARIUS: 'PERTAINING TO BEASTS OF BURDEN'

The term *veterinarian* is commonly used in English to designate professionals who take care of animal health. The word originated not as a noun, but rather was derived as an adjective from *medicus veterinarius*. This is easily recognized in the French expression *médecin vétérinaire*, which is still in use along with *vétérinaire*.

Veterinarian is of Latin descent. Country life was highly esteemed by the Romans. Treatises on agricultural topics were popular. It is therefore perhaps not surprising that veterinarius was mentioned in the important compilation work of Columella (about 60 AD), 'De re rustica' (On rural matters). It was not intended to indicate, however, individuals entirely or mostly occupied with animal health care, but rather it designated a person who handled draft and pack animals. Veterinarius is derived from veterinus (veterina, veterinum), veterinorum (veterinarum) pertaining to 'beast of burden'. Veterinus, possibly stems from vehere, meaning 'to carry' (Littré, 1877). More recent dictionaries link it to vetus: old, as in veteran. This may mean: pack animals too old for military service or



Figure 2. A magnificent illustration of the 'spirit of enlightenment', in which the first veterinary schools were founded. 'Lumen a lumine' (light through light): the light of science is shining from an academic building into the intestines of a dissected horse, examined by a neatly dressed gentleman (a scientist!). 'Ignorance' is horrified and withdraws in shadow and darkness (frontispice of *Elemens d'Hippiatrique*, 1751, of Claude Bourgelat, founder of the Lyon and Alfort schools, and collaborator in the famous *Encyclopédie* of Diderot and d'Alambert).

races (Dictionnaire historique, 1992) or: old and experienced enough to carry or to pull loads, or even more specifically, 'one year old, hence strong enough to carry burdens' (Chambers Dictionary of Etymology, 1988; Klein's Comprehensive Etymological Dictionary, 1971). In any case, the relationship with 'beast of burden' is evident.

Medical connotations soon became apparent in other Latin texts and in inscriptions. The *medicus veterinarius* appeared on the scene, but this term also still meant a person who heals (or tries to heal) draft animals. *Medicus iumentarius* was a synonym: a *iumentum* was a draft animal. Similar terms were *medicus pecuarius* (pecus: cattle) and *medicus equarius* (equus: horse), but in Mediterranean regions undoubtedly the most meaningful term was *mulomedicus*: a medical person who takes care of mules.

The humble mule was indeed the most frequently

used 'beast of burden' in the Roman Empire (Figure 1). The story of Hannibal crossing the Alps not only with (a few) elephants but also (and mainly) with mules, to destroy the Romans, is well known. It can be taken for sure that donkeys and especially the mules played an important role in this episode. Large donkey jacks were crossed with good mares to produce strong, though normally infertile mule offspring. With the help of these animals, it was possible to carry heavy loads over long distances and along difficult tracts. Even in those days logistics were of great importance in warfare. This was acknowledged and highly appreciated by the well organized Roman troops, as well as in civil life (Dunlop and Williams, 1996). Not long ago, during the Second World War, mules were very valuable during military operations in mountainous regions, as was the case, for example, in the terrible battle of Monte Cassino in Italy. Mules contributed ... and paid a high tribute.

The role of beasts of burden in the evolution of human welfare remains largely unrecognized, and is greatly underestimated at best. In the old days, after the sedentary way of living became the rule, humans, man and woman, had to do all labor by means of their own physical strength, using primitive instruments. They carried all sorts of burdens on their own shoulders, backs or heads, and under their own arms. This was the slave work to which they were condemned after being expelled from Eden, as the Bible tells us. It can be stated that humans were delivered (redeemed, saved in biblical terms) from this primitive state by beasts of burden. The donkey carried the heavy sacs, the ox and the mule drew the plough. With the poor small tenants of our great grandparent's days, it was often their single cow who did this. Those who were somewhat better off could afford an ox, which was only fattened (if possible) for slaughter when maybe ten year old. Only the rich farmers had a horse, perhaps two or three.

Serfdom was common in Western Europe in the first millennium, and in many ways down through the 19th century. Humans were used, were 'held' as slaves by their rich owners. The owners did this in a way not unlike the way they held their *domestic* animals. Slaves as well as *domestic* animals were part of the *mancipium*, in later times called the *dominium*. Note that *domestics* or *domestic workers* (Latin *domestici*, belonging to the *domus*, the home, the domain, *domestiques* in French) are household servants.

A popular historical theory links the disappearance of the slave system in our regions to the fact that heavy labor, slave work, was increasingly done by domestic animals. The French military historian Lefebvre des Noëttes published in 1931 a curious work on the history of hitches and hitching in which he went as far as to link the gradual disappearance of slavery in Western Europe from the 10th century onwards to the introduction of the padded horse collar, which rapidly replaced the earlier throat-and-girth collar systems. Although this assumption is an oversimplification (Spruytte, 1977; Raepsaet, 1982; Amouretti, 1991), beasts of burden certainly played a role in this process.

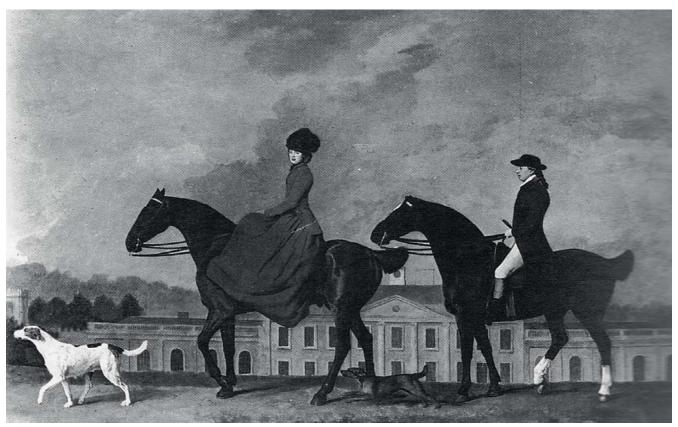


Figure 3. On perfect horses in a perfect (?) world: John and Sophia Musters riding out at Colwick Hall (George Stubbs, 1777, private collection). Stubbs (1724-1806), equestrian artist, animalier and one of the best English 18th century painters, published a highly esteemed. *Anatomy of the Horse* (1766).

Mules were the most important beasts of burden, and in view of this fact, it is no surprise that the first entirely veterinary text book was titled 'Digestorum artis mulomedicinae libri'. These books (libri) containing a digest of the art of mule medicine were written by Vegetius (Publius Flavius Renatus) in the fourth or fifth century AD. The interest in mules of Vegetius, a widely read author on warfare techniques, was inspired by their military function. Translations in German (1532), Italian (1543), French (1563) and English (1748) of this work and of 'De re rustica' by Palladius have greatly influenced authors of other veterinary texts (Dunlop and Williams, 1996; von den Driesch and Peters, 2003).

Vétérinaire (art vétérinaire) was introduced in the 16th century from these Latin sources into French, possibly through Italian mediation (Dictionnaire historique, 1992), and veterinarian appeared in an English text for the first time in 1643 (Chambers Dictionary of Etymology, 1988). In Great Britain the term veterinary was promoted in the first decades of the 19th century because it sounded learned and it distinguished the new class of scientifically trained diploma holders from farriers and other animal healers (Woods and Matthews, 2010). These farriers, men of some standing, were usually literate, but they had no notions of Latin. The founding of the first veterinary school in London (1791), headed by a Frenchman, Charles Benoit Vial de St Bel, gave an impetus to this new scientific trend. The first edition of the most important work of Claude Bourgelat, a lawyer by education and founder of the very first veterinary schools (Lyon, 1762 and Alfort, 1765), carried the title 'Elemens d'hippiatrique ...' (Elements of Horsemanship), while the following editions were titled 'Elemens de l'art vétérinaire ...' (Figure 2). The general meaning of the term *veterinary*, supposed to involve all animal species, may have been a factor contributing to this choice. Nobody at that time seemed to have been aware of its etymology, as explained above. Veterinary historians stated that the word has no medical signification and certainly no medical origin. They concluded that 'perhaps veterinary lacks elegance of origin, but who can change a word used for twenty centuries without interruption?' Who indeed? (Lawrence, 1989).

Veterinary surgeon is a popular title in the Anglo-Saxon world. It is derived from the medieval category of master surgeons, craftsmen that were reputed for their skills. This word is derived from the Greek kheirourgia: 'working by hands' or 'done by hand', from kheir 'hand' and ergon 'work'. Several (human medical) surgeons attended the courses of the first veterinary schools, graduated and contributed to their success (Gray, 1957). Note that medicate has the same etymology as meditate ...

In conclusion, it can be said that human welfare profited greatly from the introduction of the domestic animal. The truth of this statement turned the other way round is less clear. Most owners and attendants (the *veterinarii*...!) probably tried to give the best possible care

to their precious draft animals. Even though medical science was embryonic and many medicines and interventions look barbarous in our eyes, the supposed healing properties of every (im)possible remedy was tried out, including white magic. Usually experienced herdsmen or 'wise' old men, healers and shamans, were charged with this. Many of them most certainly acquired considerable skill in gynecological interventions and surgery, starting with castration.

When the animals grew old and became useless, feelings of compassion appeared. A folk tale about famous emperors who tried to get rid of their old donkey appears in Persian, as well as in Byzantine (the blind emperor Theodosius) and in Western European traditions (the emperors Charlemagne, 8-9th century AD and the Habsburgean Charle Quint, 16th century). The discarded animals managed somehow to attract the attention of their former masters, after which they received a nice 'pension' for the rest of their days (Lox, 1999). This type of tale is related to the famous Grimm story of the rebellion of 'the Bremen town musicians', four household animals, a donkey, a dog, a cat and a rooster, against their cruel master.

HIPPIATER, MARÉCHAL, PAARDENMEESTER

Mules belong to the family of *Equidae*, but that was not the reason why the title of the (second) translation into French of Vegetius' work by Saboureux de la Bonnetterie (1783) referring to mules, changed into 'L'art vétérinaire ou l'hippiatrique de Vegetius Renatus'. The horse had become of paramount importance, and this brings us to the Greek *hippiater* (*hippos* - horse, iatrein - to heal: horse healer). This term is older and was much more widely used than its Latin counterpart *medicus equarius*. Compilations of knowledge on animal medicine appeared in which the horse dominated. This can be inferred from the title *Hippiatrica*, the most comprehensive Byzantine compilation (9th or 10th century AD) of Greek texts on animal medicine that had survived until that time.

Horses were held in high esteem among the Greek and Hellenic peoples, as evidenced in numerous and splendid pieces of art. Chariot races were enormously popular. It was however only in the first centuries of the second millennium AD that horses and horse riders came to prominence in Western Europe. This was largely due to changes in warfare techniques. The invention of the bridle and stirrup was instrumental in this development. Stirrups were adopted from Central Asian nomadic peoples by the Byzantines, but it took several centuries before they reached the rest of Europe. They allowed the fierce warriors to carry heavy armor on their great horses and they lent support to their bodies, thus allowing the riders to stay in the saddle in violent battle clashes.

Soldiers moving and fighting on foot were of low stature (not only literally), even though their bows were often deadly weapons. These troops were called 'infantry', a term surviving until the present day. Infantry stems from *infant*, but although these soldiers of-

ten may have been very young, they differed from the present day 'child soldiers' of certain African warlords. During the Middle Ages, the word 'child' meant any person unable to earn a living, to survive on his or her own. Fourteenth century songs in Flemish composed in aristocratic circles during uprisings of the poor against the *ruters* (riders) are full of insults against these uncivilized *kerels*, the rogue peasant chaps (Heeroma, 1966).

Opposed to the humble infantry man was the noble who could afford to take part in battles, highly seated on the back of his horse: the chevalier (cheval: horse, in English to be found in *chivalry*) and *der Ritter* (in German) or *ridder* (derived from *ruter* or *ruiter* in Dutch), meaning rider. Horse riding has an aristocratic military origin in Western Europe. Cavalry was unrivaled in our Middle Ages, and until the days of Cervantes' Don Quixote with his poor horse Rosinante (1605 and 1615), chivalry was often associated with ideals of magnitude, honor and courtly love. The 'noble' horse and horse riding remained in high esteem long after their military role had disappeared (Figure 3).

All this explains why horse medicine and those involved in horse care ranked high. An almost incredible example of this is the word *marshal* (French *maréchal*) and its relationship to veterinary medicine. This noun is composed of *mare* (meaning horses in general) and *scalc*, meaning servant, boy or child (in the mediaeval sense): a person attending horses. It is needless to say that this term had a dazzling career, rising to become the name of the highest military rank in several armies. In the earliest Dutch-Latin dictionary, published by Kilianus (Cornelis Abts van Kiel) in 1599, we find



Figure 4. Horse attendant (marshal, veterinarius) with excessively groomed horse (detail). By the Flemish painter Roelant Savery (Kortrijk 1578 - Utrecht 1639), employed from around 1604 onward at the Prague court of emperor Rudolf II.



Figure 5. In the prominent French literature until the end of the 18th century, 'Maréchal' was the standard term for persons engaged in horse medicine (Museum of Veterinary Medicine, UGent, Merelbeke Campus).

maerscalck translated as (1) a person attending horses, especially hoofs, manes and tails: minister equorum, qui ferreos calceos (iron shoes) adfigit (fixes) et jubas (manes) et caudam (tail) comit (referring to grooming); (2) as a farrier, faber ferrarius and (3) as medicus equinus, veterinarius. Hence, it follows that in that period the difference between a groom, a farrier and a 'veterinarian' was not evident (Figure 4).

Again, the high standing of horses inevitably led to great love and care, sometimes reaching almost absurd

proportions as in certain grooming habits and even in 'esthetic surgery'. Veterinary text writers paid almost exclusive attention to horses. Typically they added a dozen pages on diseases of cattle - almost 'for show' - at the end of their books and booklets, followed by one or two pages on pig, sheep and goat diseases, and very rarely a few words on poultry. Dogs, and especially hunting dogs, were better off. Their splendor is illustrated in Jean Froissart's chapters on Gaston Phoebus, Count of Foix (Pau, Southern France), excelling in the three 'special delights' of his life (arms, love and hunting), who composed a famous 'Livre de Chasse' (Book of the Hunt, 1387-1388). Similarly treated were the hunting falcons described by the famous and learned Hohenstaufen Emperor Frederick II of Sicily (1194-1260) in his 'De ars venandi cum avibus' (On the Art of Hunting with Birds).

All this happened during a period named in German literature the 'Stallmeisterzeit', to be translated as 'Stable Master Era', somewhat arbitrarily placed in the period from about 1250 to 1762, (von den Driesch and Peters, 2003). The year 1762 is marked by the founding of the first veterinary school in Lyon, and 1250 was taken as a starting point because it is the publication year of the first mediaeval Western European veterinary text book by Jordanus Ruffus (Ruffo or Rosso), *Imperialis marescallus major* in Frederick's court. This

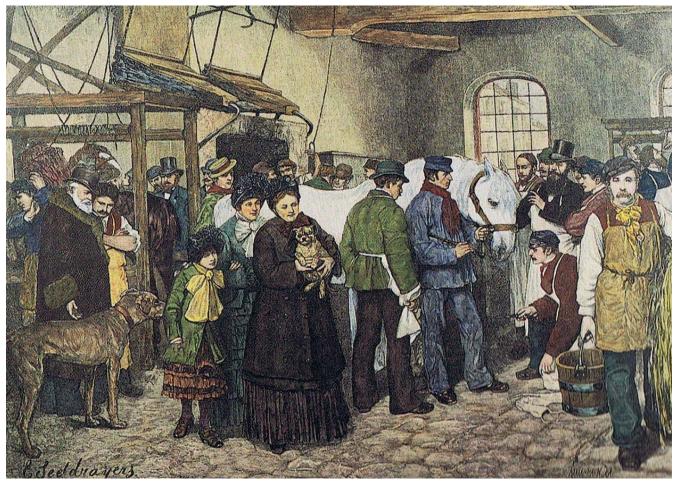


Figure 6. Veterinary clinic of Cureghem (Brussels) in the second half of the 19th century. Lithograph by Emile Seel-draeyers (Ghent, 1847 - Brussels 1933). The monumental original painting is nowadays on display at the Veterinary Faculty of Liège (Sart-Tilman).



Figure 7. A witness to the high standing and cost of butter in the past centuries. The Butter Market was held on the most prestigious open area in the city of Gent, in front of the town hall. This place changed its name into 'Botermarkt' (Butter Market) near the end of the 17th century. It continued to carry this name after the butter disappeared, and it is today's official designation of the spot and address of the municipality.

work in Latin, known as *De medicina equorum*, in fact originally had no title, though its opening line stated significantly: *Incipit liber maescalcie, marestalle ...ipatorie*. These texts were often copied, and its prescriptions were introduced into folk medicine. Veterinary 'art' borrowed extensively from Ruffus until the 18th century (Dunlop and Williams, 1996).

Similar texts carrying analogous titles appeared until 1568, when *Quod veterinaria medicina* .. was printed in Venice. This innovative work, authored by Giovanni Philippo Ingrassia, philosopher and physician, was the first publication highlighting the term *veterinary medicine*. To be followed by many others... However, until the end of the 18th century the term *maréchal* held strong, especially in France (Figure 5). Major publications on horse science and medicine included 'Le Parfait Maréchal' (1664, Jacques de Solleysel) and 'Le nouveau parfait Maréchal' (1741, François de Garsault).

The fame of the *maréchal* continued even after veterinary education on a regular school basis started (1762). In France, a system was introduced in the early 19th century to allow individuals lacking academic education to work as 'veterinarians' after succeeding in examinations involving minimal theoretical knowledge, for which they were awarded the diploma of *maréchal vétérinaire*. In other countries, similar systems were introduced. Again, the association of veterinary medicine with horses was evident. In fact, many of those per-

forming horse medicine were farriers or farrier's sons (farrier in French is *maréchal ferrant* and 'fer' means 'iron'). This 'second rate' diploma was soon abolished in France (Leclainche, 1936), but in other countries it persisted much longer. In Belgium, after the first graduates had returned from the newly founded veterinary schools in France at about Napoleon's time the *maréchal* vétérinaire was allowed to continue his profession. This did not change later on when veterinary education was organized by the local governments, first in the Netherlands (Utrecht, 1821) and from 1836 on at Cureghem near Brussels (Figure 6) in the newly founded Belgian state, The situation was regulated in 1852, when those participating and succeeding in examinations were allowed to continue their profession, but later on no new diplomas of that kind were awarded (Mammerickx, 1997).

In Dutch, these men, as well as the veterinarians graduated from veterinary schools, were called *paar*denmeester (horse master). This is still the case with veterinarians in rural areas, although most of them do not dare to take care of ailing horses. The designation goes back to at least the 17th century and is related to the notion of 'master' in medieval craft and artisan organization. Meester and master are contractions of magister, derived from magis (more, greater). Records of 17th century sorcery trials relate details of certain individuals acting as paardenmeester (Momballyu, 2003). These 'horse masters' are not to be confounded with the high ranking titles once existing in several countries signifying Magister equitum. Such is the Master of the Horse in the United Kingdom, once an important official of the royal household, the third dignitary of the court. Nor are they to be mistaken with the ill-famed poester (Dutch-Flemish), *Pfuscher* (German) or *maquignon* (French), especially skilled in 'preparing' ailing horses to be sold, hiding weak spots and worse.

In German a similar name, *Pferdarzt*, was used; the term *Ross-Arzt* apparently had a lower standing in the 19th century, indicating men exercising the profession without any diploma.



Figure 8. A rather strange member of the family. The world of the rural farm veterinarian in the first half of the previous century (photo taken in an unknown Flemish village, after World War I, year unknown).

FARM ANIMAL PRACTITIONER, VÉTÉRINAIRE DE CAMPAGNE, VIEHARZT (GERMAN), VEEARTS (DUTCH)

Hardly a century ago, meat, dairy products and eggs were not cheap, and before that time these animal products were expensive. This is illustrated in an astonishing way in plain English. The farmers preserved the use of the Anglo-Saxon (Germanic language) words for their animals, but names of different types of meat are derived from French, the (adopted) language of their Norman invaders and new masters, led by William the Conqueror (Battle of Hastings, 1066). Farmers raise animals and gentry eat meat:

Beef (French: boeuf) meat from cows, ox's and steers Veal (French: veau) meat from calves Mutton (French: mouton) from sheep Porc (French: same) from swine, pigs

Dairy products were also very expensive. This is witnessed by popular expressions such as 'to fall with your bum in the butter' and 'land of milk and honey', and in traditional songs. One Flemish song deals with four little weavers (*vier weverkins*) who went to the butter market, but ended up buying only one pound for the four of them, because they did not have enough money to get four separate portions. The most prestigious open area in the center of Ghent, facing the magnificent town hall, has been called the Botermarkt (Butter Market) since the 17th century (Figure 7).

The (in our eyes) incredibly high cost of quality food was indisputably due to low productivity and poor agricultural and animal rearing practices in which innumerable endemic (enzootic) and epidemic (epizootic) diseases played a large role. The great agricultural revolution starting in the USA from the last third of the 19th century onward changed this situation. In the Dutch language this revolution was preceded by the introduction of the term veearts (vee: farm animal stock; arts: from the Greek archiatros, a title in use at the Byzantine and Carolingian imperial courts composed from archos and iatrein: 'healer-in-chief'). However, this term could not rival with the paardenmeester (horse master, Pferdarzt) until well into the second half of the previous century. Farmers asked for the 'horse master' to deliver their cow. Many veterinarians remained reluctant to take care of sick bovines, or else they considered this as a job of secondary importance. In any case, *veearts* became the Dutch counterpart of veterinarian (Figure 8). The veterinary faculties of Utrecht and Ghent started as veeartsenijschool. The term veeartsenijkunde (veterinary science) appeared in print for the first time in 1798 - 1804 (Woordenboek der Nederlandsche Taal, 1954), coinciding with the introduction of the veterinary school system.

In German the analogous term *Vieharzt* (*Vieh* and *Arzt*) was apparently not as widespread as in Dutch, at least not in the more or less official language, as evidenced by the fact that the term *Vieharzneyschule* (veterinary school referring to farm animals) was super-

seded by the designation *Tierarzneyschule* already in the late 18th century founding period (von den Driesch and Peters, 2003). It is possible that the latter term was preferred because horses were not considered to be *Vieh*, the ordinary farm animal stock, as becomes clear from book titles referring to *Pferd- und Vieharzt*. Also, the low status of the pre-existing *Vieharzt* and the popular use of 'Vieh' as an insult presumably prevented the founders of the new schools from using this term. *Veterinär* was and still is a synonym for *Tierarzt* in German.

Even in earlier times, the health care of farm animals other than horses was reflected in the professional names. Some herdsmen were designated as *koei meester* (cow master) in the 17th century sorcery trials referred to above. But these remained of low standing, and were often feared because of their supposed secret skills. In regions which were to become part of Germany, the *Kue* (cow) *arzt* (Fröhner, 1929) was also known. In England, the *cow leech* (from old-English léce: healer, lécnian: to heal), sometimes perhaps ironically called *cow-doctor*, and the *castrator* played a similar role (Lane, 1991; Hill Curth, 2002).

A rather strange sounding professional name of veterinarians in some Flemish and Walloon villages was *artist(e)*. Most probably, this was borrowed from the designation given to the first graduates of the newly created veterinary schools in France. They received a 'brévet de privilégié du Roi en l'art vétérinaire'. Artist is derived from artis (Latin Genitivum of ars), in this case artis veterinariae, meaning 'of or in veterinary art': a person possessing knowledge of veterinary 'art', (art in the sense of science). After the French revolution and during the first decades of the 19th century, veterinary graduates were officially titled artiste vétérinaire in France, Belgium and the Netherlands (Remacle, 1839; Mammerickx, 1967; van der Vliet, 2003), possibly because they refrained (or were prevented?) from using the designation médecin. These artistes vétérinaires were accredited by the governments. Only later on in the same century did the artistes véterinaires change into médecins vétérinaires. Both titles separated them from farriers and other 'laymen' exercising the profession. Some may regret that these 'artists' disappeared from the vernacular long ago, although in a few villages the 'title' survived until somewhere halfway into the 20th century.

Another popular professional title in Flanders in the same time period was *expert*. This term most likely originates from the duties of graduated veterinarians as official experts in legal cases, often concerning so-called redhibitory vices and defects (actio redhibitoria: hidden impediments annulling sale transactions). In a similar way, the state government conferred upon them official tasks in the prevention and eradication of plagues. Responsibilities of this type were denied to the farriers and uneducated healers, considered to be more noxious to animal health than the infectious diseases themselves (Leclainche, 1936). The *maréchal-expert*, a title indicating a higher grade of farriers, created by the Napoleonic administration to cope with the short-



Figure 9. The elegant world of the first small animal practitioners. By Théophile Steinlen (Vevey, 1859 - Paris, 1923), the 'Master of Montmartre' and probably the most famous painter of cats.

age of veterinary professionals (Leclainche, 1936) is a less likely source. In certain rural areas, *expert* became synonymous with veterinarian and the name is still in use as such.

Successful officially organized eradication campaigns of rinderpest (18th century), bovine pleuropneumonia (19th century), tuberculosis and brucellosis (20th century), each of them mainly affecting cattle, increased both the need for fully qualified veterinary graduates and the esteem in which they were held. Moreover, the later introduction of therapeutics with scientifically proven effects (antibiotics, antiparasitic products, etc.) had an enormous impact and further contributed to the success of veterinarians and veterinary science. Today's vets dispose of a wide array of products with proven effectiveness. Cattle, and in some countries or regions also sheep, have received great attention. Swine and poultry had to await the advent of production on industrial scale before veterinarians and, most importantly, veterinary science would deal adequately with them. Effective disease control programs, including the administration of vaccines, have made this evolution possible. The massive accumulation of, most often, young animals, highly susceptible to infectious diseases, as is the case in modern production units, is not possible without the help of such programs. Note that the term vaccine is derived from *vacca* (Latin: cow).

'Blossom', the legendary cow of Jenner's milkmaid, is at the origin of the prevention, the control and finally the disappearance of the dreadful smallpox disease in humans, one of the greatest achievements of medical science and organization.

This evolution towards the massification and industrialization of farm animal keeping, part of what is sometimes called the second agricultural revolution, started not much more than half a century ago. Changes in the attitudes of humans to animals have coincided with and are more or less related to this very recent evolution in farm animal rearing. Is industrial farm animal keeping acceptable from a (human) moral point of view? Moral philosophers explore the notion 'sentient being' introduced by Jeremy Bentham (1748 - 1832), and (human) psychologists endeavor to provide insight into human-animal relationships (Herzog, 2010). This brings us to our final chapter.

COMPANION ANIMAL PRACTITIONER, TIER-ARZT, DIERENARTS

Until about the last quarter of the previous century, veterinary medicine remained almost synonymous with farm animal practice. But, especially from the 1970's onward, companion animal medicine rapidly gained importance. Horse medicine revived, as part of this trend, and *equine practitioners* have become highly

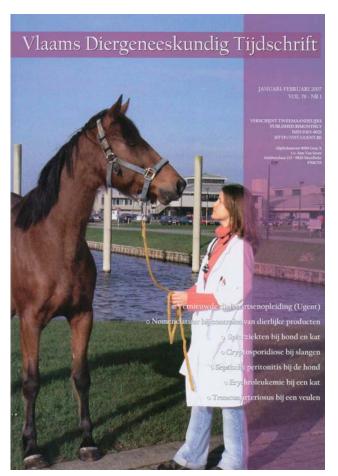


Figure 10. The typical veterinarian (as a student) at the start of the third millennium.

specialized professionals taking care exclusively of horses kept for riding, for racing, as companions of owners and their children, or even almost as 'ornaments'. The same thing has happened with the small animal vets, most of whom take care of dogs and cats (Figure 9). Several types of specialization, usually according to animal species, emerged, and they have continued to show rapid development. Appropriate names indicating subdivision, specialisms and specialists have appeared spontaneously: *avian medicine*, *poultry veterinarian*, *Kleintierarzt*, etc ...

The numbers of small animal practitioners have been increasing steadily, and this trend is running parallel with the 'feminization' of the veterinary professio (Figure 10). Again, this change is mirrored in the names given to those exercising the profession. *Dierenarts* (animal vet) has replaced *veearts* (farm animal veterinarian) in Dutch. Although *dierenarts* is older and was promoted during the first half of the 20th century by veterinary organizations and university faculties, it was only after the 'explosion' of companion animal medicine that it became the standard designation of vets in the Netherlands and in Flanders (Belgium). In Germany, as indicated above, this substitution happened much earlier.

It may seem a paradox, but the inhumane massive production of cheap meat, eggs and dairy products, also necessitating large-scale monocultures of soy and other feed ingredients, contributes to our affluent way of life in which we can afford to spend great love (and much money) on our own cherished animal companions. The *veearts*, the *farm animal vet*, has helped to provide means of life to the *dierenarts*, the *companion animal vet*.

Looking back at the end of this story to the starting point, the 'beasts of burden' serving mankind, which lent their name to the *veterinarius*, one can ask whether or not our present day companion animals are really different from the mules of the *mulomedicus*. In the very essence of their existence, they are not. Their lives are entirely in the hands of their masters, whether or not these are 'animal rights' activists, lords of agricultural industry, brutes, or just common people loving their housemates and taking good care of them. The term 'veterinary' has lost nothing of its forgotten original content. Knowledge about this may help to rehabilitate the humble donkeys, the mules and other beasts of burden who delivered mankind from slave labor ... and became our slaves.

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