Jordanus Ruffus and the late-medieval *hippiatric* tradition: Animal-care practitioners and the horse

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Abstract

This project looks at the development of horse-care in the late-medieval Latin West through the reception and context of one of its key texts: De medicina equorum by Jordanus Ruffus (d. 1256) a knight-farrier at the scientifically vibrant court of Frederick II (d. 1250) in Sicily. This thesis analyses the development and reception of *hippiatric* texts in Latin and various vernacular languages in the Latin West, contextualised via a large corpus of material linked to horse health and illness, which includes miracle narratives, guild records, chronicles, and muster rolls. This thesis is situated at the intersection of Animal Studies and the history of health and medicine. It places horse-care into a broader cultural context, arguing that literary, scientific, and theological ideas surrounding horses influenced the construction of horse-medicine. It argues that horse and human medicine were overlapping systems, broadly similar in form, method, and theory and that the only way to understand horse-medicine is within the context of ideas about both human and animal biology and health.

Chapters One and Two provide an overview of the historical, literary, and philosophical contexts of the *hippiatric* tradition, before charting the development and reception of these treatises. Chapter Three looks at the broad range of individuals and groups who provided daily care and interventionary medicine to horses in the Late Middle Ages. Chapter Four discusses the therapies available to medieval horse-carers, comparing the positions of magical and miraculous medicine and describing the dynamics of choice. Chapter Five uses an occupational health paradigm to discuss the construction and maintenance of elite horses by the *hippiatric* treatises. Finally, Chapter Six looks at ideas of agency, articulacy, and 'violent care' to consider the horse as a non-human patient.

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Abbreviations

ACVA	*Reliqua librorum Friderici II. Imperatoris de Arte venandi cum Avibus cum Manfredi regis Additionibus* (Leipzig: I. G. Mulleri, 1788)
Albertus Magnus	Hermann Stadtler, *Albertus Magnus De Animalibus Libri XXVI Nach der Cölner Urschrift* (Münster: der Aschendorffschen Verlagsbuchhandlung, 1920)
Avicenna, De Animalibus	Avicenna*, De animalibus* (Forli: Joannes and Gregorius de Gregoriis, 1500)
Bartholomew	*The Book of the Foundation of St. Bartholomew's Church in London: The Church Belonging to the Priory of the Same in West Smithfield*, ed. by Norman Moore (London: Oxford University Press, 1923)
Birgitta of Sweden	*Revelationes Caelestes Seraphicae Matris S. Birgittae Suecae, Sponsae Christi Praeelectae, Ordinis Sponsi Sui SS. Salvatoris Fundatricis*, ed. by Simon Hörmann, et al (Münich: Wagner and von Gelder, 1680)
Boke of Marchalsi	Bengt Odenstedt, *The Boke of Marchalsi: A 15th Century Treatise on Horse-Breeding and Veterinary Medicine: Edited from MS. Harley 6398* (Stockholm: Stockholm University, 1973)
Cirurgie des Chevaux	Brigitte Prévot and Bernard Ribémont, *Le cheval en France au Moyen Age: sa place dans le monde médiéval; sa médecine, l'exemple d'un traité vétérinaire du XIVe siècle, la Cirurgie des chevaux* (Caen: Paradigme, 1994)
Henry VI	Ronald Arbuthnott Knox and Shane Leslie, *The Miracles of King Henry VI, Being an Account and Translation of Twenty-*

Three Miracles Taken from the Manuscript in the British Museum (Royal 13 c. Viii) (Cambridge: University Press, 1923)

James Salomoni — *Acta Sanctorum*, May VII (Paris: Victor Palmé, 1866)

Jordanus Ruffus — Jordanus Ruffus, *Jordani Ruffi Calabriensis Hippiatrica*, ed. by Hieronymus Molin (Padua: Seminarii Patavini, 1818)

Laurentius Rusius — Laurentius Rusius, *La mascalcia di Lorenzo Rusio volgarizzamento del secolo XIV*, ed. by Pietro Delprato and Luigi Barbieri (Bologna: Presso G. Romagnoli, 1867)

Liber Ipocratis — Ypocras Indicus, *Trattati di mascalcia attribuiti ad Ippocrate, tradotti dall'arabo in latino da Maestro Moisè da Palermo, volgarizzati nel secolo XIII. Messi in luce per cura di Pietro Delprato. Corredati di due posteriori compilazioni in latino e in toscano e di note filologiche per cura di Luigi Barbieri.*, ed. by Luigi Barbieri and Pietro Delprato, trans. by Moses of Palermo (Bologna: Romagnoli, 1865)

Louis of Toulouse — *Processus Canonizationis et Legendae Variae Sancti Ludovici O.F.M. Episcopi Tolosani*, ed. by Michael Bihl, Benvenutus Bughetti, and Aubain Heysse (Florence: Ad Claras Aquas, 1951)

Michael Scot, *Physiognomiae* — Michael Scot, *Liber Physiognomiae* (Venice: Jacobus de Fivizano Lunensis, 1477)

Our Lady of Rocamadour — Marcus Graham Bull, *The Miracles of Our Lady of Rocamadour: Analysis and Translation* (Woodbridge: Boydell Press, 1999)

Petrus de Crescentiis — Petrus de Crescentiis, *Ruralia commoda* (Löwen: Joannes de Westfalia, 1483)

Raymond of Peñafort — Vatican City, *BAV,* MS Vat. lat. 6059 ff. 46ᵛ-47

Rosalia	*Acta Sanctorum*, Sep. 2 (Paris: Victor Palmé, 1868)
Simon de Montfort	William Rishanger, *The Chronicle of William de Rishanger, of the Barons' War, the Miracles of Simon de Montfort.*, ed. by J. O Halliwell-Phillipps (London: J.B. Nichols and Son, 1840)
Stanislow of Cracow	*Acta Sanctorum*, May 2 (Paris: Victor Palmé, 1866)
Theodoric of Cervia, I	*Die Pferdeheilkunde des Bischofs Theoderich von Cervia: Abhandlung I*, trans. by Erich Dolz, 3 vols (Berlin: Friedrich-Wilhelm-Universität, 1935), I
Theodoric of Cervia, II	*Die Pferdeheilkunde des Bischofs Theoderich von Cervia: Abhandlung II*, trans. by Günther Klütz, 3 vols (Berlin: Friedrich-Wilhelm-Universität, 1936), II
Theodoric of Cervia, III	*Die Pferdeheilkunde des Bischofs Theodorich von Cervia: Abhandlung III*, trans. by Wilhelm Heinemeyer, 3 vols (Berlin: Friedrich-Wilhelm-Universität, 1936), III
Thomas Becket, II	James Craigie Robertson, *Materials for the History of Thomas Becket, Archbishop of Canterbury (Canonized by Pope Alexander III, A.D. 1173)* (London: Longman, 1875), II
Thomas Cantilupe	*Acta Sanctorum*, Oct. 1 (Antwerp: Petrum Joannem Vander Plassche, 1765)
Thómas Saga Erkibyskups	*Thómas Saga Erkibyskups: A Life of Archbishop Thomas Becket, in Icelandic, with English Translation, Notes and Glossary*, ed. by Eiríkr Magnússon (London: Longman & Co, 1875)
Vegetius	*P. Vegeti Renati digestorum Artis mulomedicinae Libri*, ed. by Ernest Lommatzsch (Leipzig: B. G. Teubner, 1903)
Vicinius of Sarsina	*Acta Sanctorum*, Aug. 6 (Paris: Victor Palmé, 1866)

Vita Gerlac   *Acta Sanctorum*, Sep. 1 (Antwerp: Joannem Meursium, 1765)

Wulfran   *Acta Sanctorum*, Mar. 3 (Antwerp: Jacobum Meursium, 1668)

Wulfstan   *The Vita Wulfstani of William of Malmesbury, to Which Are Added the Extant Abridgments of This Work and the Miracles and Translation of St. Wulfstan,* ed. by Reginald R Darlington (London: Offices of the Royal Historical Society, 1928)

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Introduction

Non-human animals have played an integral role in the expansion of human societies since the Early Bronze Age (~3000 BCE), perhaps none more so than the horse.[1] In later medieval Europe the horse was vital to agriculture, industry, commerce, trade, travel, and warfare.[2] It was also a key social indicator and – through tournaments and pageants – a vital part of medieval urban social display.[3] Horses were a prominent part of the medieval imagination and featured persistently in literature and art.[4] Elite horses were an integral part of aristocratic identity-formation through the cultures of chivalry. The knight and his horse is one of the most persistent and influential images of the Middle Ages, the most 'closely coordinated and densely represented' inter-species relationship of the period.[5] A horse could be the greatest reflection of its owner, embodying traits of nobility, bellicosity, and bravery. Medieval aristocrats looked to Ancient Greece and Rome for equine exemplars, none finer and more precocious than Bucephalus, Alexander the Great's ox-eared steed. When Bucephalus dies in the *Roman d'Alexandre*, it exemplifies

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[1] Peter de Barros Damgaard and others, 'The First Horse Herders and the Impact of Early Bronze Age Steppe Expansions into Asia', *Science*, 360 (2018); David W. Anthony, *The Horse, the Wheel, and Language: How Bronze-Age Riders from the Eurasian Steppes Shaped the Modern World* (Princeton, N.J: Princeton University Press, 2010).

[2] David Gary Shaw, 'Horses and Actor-Networks: Manufacturing Travel in Later Medieval England', in *The Historical Animal*, ed. by Susan Nance (Syracuse, New York: Syracuse University Press, 2015), pp. 133–47; Jordan Claridge and John Langdon, 'Transport and Transport Technology in Medieval England', *History Compass*, 9 (2011), 864–75.

[3] Andrew Brown, 'Urban Jousts in the Later Middle Ages: The White Bear of Bruges', *Revuew Belge de Philologie d'Histoire*, 78 (2000), 315–30; Noel Fallows, *Jousting in Medieval and Renaissance Iberia*, Armour and Weapons (Woodbridge, Suffolk: Boydell Press, 2010).

[4] Udo Friedrich, 'Der Ritter Und Sein Pferd. Semantisierungsstrategien Einer Mensch-Tier-Verbindung Im Mittelalter.', in *Text Und Kultur: Mittelalterliche Literatur, 1150-1450*, ed. by Ursula Peters, - (Stuttgart: Metzler, 2001), pp. 245–67; Marina Viallon, 'Knights and Destriers: Representations and Symbolism of the Medieval Warhorse in Medieval Art', *Medium Aevum Quotidianum: Newsletter*, 69 (2014), 25–30.

[5] Susan Crane, 'Chivalry and the Pre/Postmodern', *Postmedieval: A Journal of Medieval Cultural Studies*, 2 (2011), 69–87 (p. 69).

the dual status of the noble horse as both a bundle of complex meaning and a vital, fleshly creature. When Alexander saw to his great sorrow that Bucephalus had died he would not allow a peasant to skin the horse – claiming his hide, mane, and tail as was customary – nor would he permit the dogs to eat his flesh. Instead, Alexander butchered Bucephalus himself, burying him in a deep pit and building a city – Bucephala the High – above the horse 'which he could not forget'.[6] When the young Alexander was first introduced to Bucephalus the horse was a wild man-eater, locked away and fed traitors, suffering nobody to lay a hand on him. When Bucephalus saw Alexander ('his master') the horse bowed in a display of chivalric fealty and obeisance. When Alexander saddled and rode Bucephalus it was a demonstration to all of his imperial majesty; 'un tel exploit est bien digne d' un empereur!'[7] But when Bucephalus died we are reminded of his corporeal nature, he was a highly specialised domesticated animal that required breeding and training, and whose health was maintained until such care failed when his body needed to be disposed of according to customs that reflected ideas of status, taboo, and species or animality.

The social and cultural importance of horses in the later Middle Ages contributed to the development of horse medicine which was remarkably analogous to human medicine. It was a theorised discipline, supported by a large corpus of complex veterinary or *hippiatric* treatises which discussed healthcare, interventionary and preventative medicine; and utilised broadly the same biological theories, natural philosophical and scientific discourses as human medicine. The most famous and well-studied of these treatises is *De medicina equorum* by Jordanus Ruffus (d. 1256), a knight-farrier associated with the scientifically vibrant court of Frederick II, the Hohenstaufen Emperor (d. 1250). Jordanus' text was both successful and influential: it was translated into at least nine languages, disseminated widely, and formed the basis for a tradition of *hippiatric* treatises that lasted until the development of veterinary colleges in the eighteenth century.[8] This thesis will ask three fundamental questions of medieval horse-medicine: first, how did

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[6] Alexandre de Paris, *Le Roman d'Alexandre*, trans. by Laurence Harf-Lancner (Paris: Librairie générale française, 1994), ll. 4061-4073 III.

[7] 'Such a feat is worthy of an Emperor!', Alexandre de Paris, ll. 461-483 I.

[8] Even Claude Bourgelat, the founder of modern European veterinary medicine was indebted to Jordanus' treatise: *Élémens d'Hippiatrique* (Lyon: Henri Declaustre, 1751), II.

the *hippiatric* tradition develop between 1250-1500, how did it respond to the expectations of its audience and how did it relate to veterinary practice and the social construction of the elite horse? Who cared for horses in the late Middle Ages, beyond the literate and elite horse-carers implied by didactic treatises. Finally, how can we access the bodily experiences of medieval horses as non-human patients or sufferers? This project is founded in the argument that medieval horse and human medicine were overlapping systems; remarkably similar in form, theory, and method. As such, veterinary history deserves to be and should be studied using the same methods, theories, and ideas that we apply to the history of human health and medicine.

Historiographical Review

Hippiatric medicine and the *Risorgimento*

The study of animal medicine in the European Middle Ages is rooted in the work of nineteenth and early-twentieth century veterinary surgeons who were in part seeking to historicise their occupation. The drive to study medieval (and classical) horse-medicine texts was a feature of the professionalisation of veterinary medicine, the development of veterinary colleges, and the promotion of veterinary care as an exclusive and regulated industry. This was much the same phenomena that triggered interest in the pre-modern history of human medicine.[9] The earliest veterinary historians sought to place themselves at the head of a narrative of progression, to distinguish their scientifically-founded medicine from the work of practitioners who were perceived to be experiential, ignorant, and ineffective. They were looking both for historical kin and an explanation for a perceived lack of significant progress over the preceding centuries – using the model of a Graeco-Roman Golden Age followed by a millennium of medieval stagnation and decay. The earliest veterinary histories grew out of the process of justifying veterinary surgery as a profession at a time when veterinarians were still developing their own sense of occupational identity; deciding, for instance, whether they were more closely allied to elite equestrianism or agriculture. There were significant nationalist overtones to this

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[9] For a precis of the development of medicine as a historical field, see Mark Jackson, 'Introduction', in *The Oxford Handbook of the History of Medicine* (Oxford: Oxford University Press, 2013), pp. 1–10.

work, centred in particular on the *Risorgimento*, which fuelled a desire to identify a uniquely Italian veterinary patrimony that could be linked to a precocious contemporary offering. The two key figures of early veterinary history in Italy – Hieronymus Molin and Giovanni Batista Ercolani – lived under the Austrian Empire in Venice, and the Papal States in Bologna; the fervid nationalism of this imperial context is reflected in their writing.

Many of the strands of modern *hippiatric* history can reasonably be traced back to an edition of Jordanus Ruffus' thirteenth century *De medicina equorum*, published by Hieronymus Molin in 1818. Molin was a Doctor of Surgery and by 1817 had been named the Professor of Veterinary Surgery at the University of Padua.[10] By 1827 he was Director of the Veterinary Hospital at Padua and in 1839 he was appointed head of the School of Medicine and Surgery.[11] From 1817, he served on the *Landesgubernium* – the local government of the Habsburg Monarchy – as the common-born representative for the Province of Venice.[12] Molin's version of the Latin text of Jordanus' treatise was the first edition of a *hippiatric* text in the modern age and sparked an interest in medieval horse-medicine amongst veterinarians that has lasted for two hundred years.[13] In the century prior to Molin, *De medicina equorum* and its various translations had largely been considered in Italy in terms of the development of the Italian language; in fact, it had been analysed by several of the luminaries of eighteenth-century Italian literary scholarship, notably Girolamo Tiraboschi (1731 – 1794) and Saverio Bettinelli (1719 – 1808).[14] Building on this tradition, Molin investigated Jordanus' text on philological grounds. He discussed several translations and printed editions of Jordanus and identified several manuscripts, which he went to significant lengths to access; for instance he received a transcription from the Italian historian Carlo Denina (1731 – 1813) of a manuscript held in Frankfurt.[15]

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[10] *Hof- und Staats-Schematismus des Österreichischen Kaiserthumes* (Vienna: Aus der k. k. Hof- und Staats-Aerarial-Druckerey, 1817), I, p. 195.

[11] *Hof- und Staats-Schematismus des Österreichischen Kaiserthums* (Vienna: Aus der k. k. Hof- und Staats-Aerarial-Druckerey, 1827), II, p. 236; Carl Christian Schmidt, *Jahrbücher der in- und ausländischen Gesammten Medicin* (Leipzig: Otto Wigand, 1839), XXIII, p. 268.

[12] *Hof- und Staats-Schematismus des Österreichischen Kaiserthumes*, I, p. 430.

[13] The precocities and limitations of Molin's treatment will be discussed in chapter two.

[14] *Jordanus Ruffus*, pp. XII-XIV.

[15] *Jordanus Ruffus*, p. XXIII.

Molin formed relationships with historians and Italian aristocrats such as Baron Giuseppe Vernazza (1745 – 1822), who had access to several Jordanus manuscripts and who convinced him that the Calabrian marshal was both a most-splendid stablemaster and held a position of honour in Frederick II's court.[16] Molin also had a brief interaction with the French veterinarian and Inspector General of the *Écoles vétérinaires*, Jean-Baptiste Huzard (1755 – 1838), whom he met in June 1807 in Turin along with the rest of the faculty of the Parisian *École vétérinaire*. This meeting had a significant effect on Molin, who says that without Huzard's counsel, he would have abandoned his work.[17] Molin related his text to an even greater figure in the genesis of European veterinary medicine: Claude Bourgelat (1712 – 1779) who founded the *Écoles vétérinaires* at Lyon in 1761 and Maison-Alfort (Paris) in 1765.[18]

With his edition, Molin demonstrated the value of historicising the nascent field of veterinary medicine through philological and linguistic investigation of *hippiatric* texts and the historical analysis of medieval practitioners. He also demonstrated that veterinarians could (and should) engage in both philological and historical study of premodern veterinary texts and practices – a tradition which persists today. He attempted to situate medieval horse-medicine in national terms; his depiction of a precociously Italian veterinary tradition significantly influenced later studies. Although recognising that by the 1810s veterinary medicine was a well-established and honourable field in Germany, England, Spain, and France, Molin looked to a past when Italian veterinary knowledge was dominant. These nationalistic historical tendencies persisted through the nineteenth-century study of *hippiatric* medicine, particularly in an Italian context of patriotic revival in which the desire for professional recognition overlapped with the struggle for dignity on the international stage. Giovanni Battista Ercolani (1817 – 1883) expanded Molin's study significantly in his three-volume *Ricerche storico-analitiche sugli scrittori di veterinaria*, published between 1851-4. The son of Count Filippo and Countess Rosalba de' Lisi,

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[16] Vernazza was librarian at the University of Turin under Napoleon, Guilio Natali, 'VERNAZZA, Giuseppe, barone di Freney in "Enciclopedia Italiana"', *Trecanni* <http://www.treccani.it//enciclopedia/vernazza-giuseppe-barone-di-freney_(Enciclopedia-Italiana)>. *Jordanus Ruffus*, p. VI.

[17] *Jordanus Ruffus*, p. XXIV.

[18] *Jordanus Ruffus*, pp. XXIX-XXXI.

Ercolani studied medicine and surgery at the University of Bologna from the age of 17. He studied comparative and veterinary anatomy and specialized in zoonotic epidemiology, publishing his first article on 'The Transmission of Glanders from Animals to Humans' in 1842.[19] Like Molin, his historical analyses were driven by a desire to reaffirm the place of Italian veterinary science amongst its contemporaries by demonstrating the contribution of premodern horse-doctors to the development of mid-nineteenth century veterinary medicine. He felt that the work of Italian veterinarians went unrewarded, which encouraged them to flee to the rest of Europe, where the state recognised the value of veterinary surgeons to agriculture and scientific breeding.[20] He also wished to demonstrate that veterinary medicine was not the 'simplest and basest of arts', a facile and unscientific exercise in watching and governing animals.[21]

Molin was also one of the first writers to attempt to connect Jordanus' treatise with other traditions of veterinary medicine. He argued for a relationship between Jordanus' treatise and Arabic horse-care, transmitted through Frederick II (d. 1194-1250) and the medical 'school' at Salerno. He mistakenly believed that the treatise attributed to *Ipocras Indicus* was translated from Arabic to Latin at Salerno during Frederick II's reign. Molin noted that 'Arabs were always such expert warriors...that surely it must follow that they were experienced in the art of training and healing [horses?]'.[22] Although his argument is unconvincing, Molin laid the ground-work for a discussion of Jordanus' cultural context and scientific influences. Ercolani followed this lead and presented a magisterial overview of dozens of veterinary treatises, largely dealing with horses, which he separated into two epochs: before and after Jordanus Ruffus (the middle of the thirteenth century). Many of the texts he discussed were (and remain) unedited and his work was the result of a huge study which in certain areas has yet to be surpassed. His intention was to present a complex if preliminary comparative pathology, a summation of veterinary disease-knowledge from Hippocrates (460 – 370 BCE) to Carlo Ruini (1530

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[19] Giovanni Battista Ercolani, 'Della trasmissione del ciamorro dai bruti all'uomo', *Nuovi annali delle scienze naturali*, 7 (1842), 264–80.

[20] Giovanni Battista Ercolani, *Ricerche storico-analitiche sugli scrittori di veterinaria*, 3 vols (Torino: Tipografia Ferrero e Franco, 1851), I, pp. 7–19.

[21] Ercolani, I, p. 9.

[22] *Jordanus Ruffus*, pp. IX-XI.

– 1598). Molin noted the close relationship between medicine and animal-care, surely influenced by his own professional trajectory – he was educated first in medicine before becoming a veterinary surgeon.[23] Whereas Ercolani, who seems to have had a broader knowledge of medieval science and philosophy, was deeply disparaging of late-medieval medical theory:

> ...in these two centuries medicine was always a servile imitator of the doctrines of the Greeks and Arabs, its scholars only added their own superstitious beliefs, whilst elevating the common foolishness and ignorant convictions to the status of a fine art, which they called astrology, and which was treated by Ramon Llull, Arnaldo de Villanova, Dino [del Garbo] and many other less celebrated ones[24]

Like many later veterinary historians, Ercolani interpreted medieval horse-medicine as fundamentally isolated and precocious; separated from contemporary human medicine by its supposed rationality and the absence of beliefs and practices deemed ignorant or superstitious.[25]

'...a secular civilisation buried under centuries of rubble'[26]

Like Ercolani in the nineteenth century, Moulé and Leclainche both presented a broadly presentist analysis of medieval horse-medicine, tinged with classicism. Moulé referred to ancient Rome as a secular civilisation 'buried under the rubble' of the Middle Ages, which would not benefit Europe for many centuries.[27] The historical narrative of medieval veterinary medicine is one of stagnation and decay, in which brief lights of knowledge – such as *De medicina equorum* – are either disregarded by an ignorant populace or plagiarised by scholastic thinkers shackled to *auctoritates*. For Emmanuel Leclainche,

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[23] *Jordanus Ruffus*, pp. LXI-LXII.

[24] Ercolani, I, p. 296.

[25] Bernard Ribémont, 'Science et Magie : La Thérapie Magique Dans l'hippiatrie Médiévale', in *Zauberer Und Hexen in Der Kultur Des Mittelalters* (Griefswald: Reineke-Verlag, 1994), pp. 175–90.

[26] Léon Moulé, *Histoire de la médecine vétérinaire. 2e période*, 2 vols (Paris: Maulde, Doumenc et Cie, 1900), II, p. 3.

[27] See note 26 above.

this was a matter of professional principal. Leclainche was another graduate of the Veterinary School at Alfort (Paris), whose career was focussed on epizootology and veterinary reform. In 1924 he founded the *Office international des Épizooties* and in later life he was the Head of Veterinary Services at the French Ministry of Agriculture.[28] As a determined advocate for veterinary reform, Emmanuel Leclainche campaigned for the institution of a veterinary doctorate in France and to protect the practice of veterinary medicine against the exercise of empirics and 'maréchaux experts'. He argued that a country which tolerates empiricism does not exercise sufficiently reputable control over its own public health situation.[29] In his historical analysis, he argued that only the theoreticians of medieval horse medicine, the *hippiatric* authors, deserved the name *vétérinaire*. As an advocate for veterinary education and reform, Leclainche spent most of his career campaigning against empiricism and for the creation of a professional veterinary monopoly. The *forgeron-ferreur* was nothing more than a simple empirical artisan, devoid of theoretical training who left nothing to veterinary medicine.[30] Leclainche's twentieth-century attitude towards empiricism undoubtedly influenced his historical analysis of veterinarians prior to the Veterinary Colleges. His magisterial 1936 *Histoire de la médecine vétérinaire* has, along with Leon Moulé's *Histoire*, left a significant mark on the history of medieval and early modern veterinary medicine.[31]

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[28] Sir Graham Wilson, 'Veterinary Microbiologists of the 19th Century', *Journal of Comparative Pathology*, 98.2 (1988), 117–34 (pp. 131–32).

[29] Laure Alnot and Guilhem Pistre, 'La Vie et l'Oeuvre d'Emmanuel Leclainche (1861-1953)', *Bulletin de La Société Française d'histoire de La Médecine et Des Sciences Vétérinaires*, 4 (2005), 94–103 (p. 99).

[30] Emmanuel Leclainche, 'Nos Ancêtres Les Maréchaux', *Revue Générale de Médecine Vétérinaire*, 35 (1926), 657–63 (p. 659).

[31] Both in terms of the tradition of attitudes towards premodern practitioners described above and significantly in the strict delineation of rational and irrational medical practices described in Chapter 4: Magic, miracles, and horse medicine. For the impact of Leclainche and others see for instance, Jacques Voisenet, 'L'animal malade au moyen âge: bilan et perspectives de recherche', in *Les animaux malades en Europe occidentale (VIe - XIXe siècle): actes des XXVes Journées Internationales d'Histoire de l'Abbaye de Flaran 12, 13, 14 septembre 2003*, ed. by Mireille Mousnier (Toulouse: Presses Universitaires du Mirail, 2005), pp. 57–86 (p. 59 n. 11).

Ercolani, Moulé, and Leclainche also set a precedent for veterinary historians to be drawn from the ranks of veterinarians, which persisted throughout the twentieth and present centuries. Major-General Sir Frederick Smith – who was a fellow of the RCVS and director-general of the Army Veterinary Service – published a history of veterinary literature from 1912-1918 that followed the 'British Development' of veterinary surgery.[32] Smith's work was a broad survey with a particular interest in identifying the point at which modern British precocity or supremacy emerged. His comparative analyses were somewhat chaotic, but he did provide a new survey of the fifteenth century horse-medicine texts held in London and Oxford, including the *Boke of Marchalsi*.[33] Smith concluded that up until the close of the fifteenth century, veterinary medicine in England was a despicable and barbarous art, that it took centuries to make up for 'insular isolation and prejudice' and that the charms and enchantments common to the English manuscripts he recorded rendered English horse-medicine fit only for the 'darkest period of the Dark Ages'.[34] Later veterinarian-historians often followed a very similar presentist methodology; they used medieval or early modern veterinary medicine as the anathema by which they could define the earliest flowering of their own profession. This leaves the premodern practitioner as irrational, useless, and potentially malfeasant or cruel. Peter Lees described premodern veterinary *materia medica* as 'lacking any objective evidence of clinical efficacy' and being 'probably counterproductive in many cases'.[35] Leslie Pugh argued in 1962 that most premodern animal practitioners were 'mainly incredibly ignorant'.[36] In her introduction to the history of comparative medicine, Lise Wilkinson referred to the advice of premodern animal-care practitioners as 'at best useless, at worst actually harmful if not lethal'.[37]

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[32] Frederick Smith, *The Early History of Veterinary Literature and Its British Development* (London: Baillière, Tindall and Cox, 1919).

[33] Smith, pp. 109–12.

[34] Smith, pp. 113–14.

[35] Peter Lees, 'Veterinary Pharmacology: Past, Present, and Future', in *The Advancement of Veterinary Science*, ed. by A. R. Mitchell (Wallingford: CAB International, 1993), I, 85–107 (p. 86).

[36] Leslie Pugh, *From Farriery to Veterinary Medicine, 1785-1795* (Cambridge: Heffer, 1962), p. 44.

[37] Lise Wilkinson, *Animals and Disease: An Introduction to the History of Comparative Medicine* (Cambridge: Cambridge University Press, 2005), p. 38.

Editions, Translations, and Philology

One of the primary tasks undertaken by *hippiatric* scholarship since the start of the twentieth century has been surveying, editing, and translation of horse-medicine texts: principally by Jordanus Ruffus, but also an array of other authors.[38] The early *hippiatric* editions and translations tended to be based on a single manuscript with little or no critical analysis and silent or absent editorial principles. These were often prepared as part of veterinary doctorates by students with limited philological or palaeographic training. The last half-century has seen a shift towards a more nuanced and professional treatment of *hippiatric* texts and a particular interest in the vernacularisation of *De medicina equorum*. Yvonne Olrog Hedvall's 1995 diplomatic-interpretive edition was based on the Italian text in Berlin, Kupferstichkabinett Cod. 78C15, probably the earliest extant translation of *De medicina equorum*.[39] Brigitte Prévot's 1991 edition of the French translation was based on a single French manuscript (Paris BNF, MS Fr. 25341) with lacunae corrected using two Latin texts (Paris, BNF, MS Lat. 2477 and MS Lat 5503).[40] There have also been editions prepared of the Gallego-Portuguese, Occitan, Italo-Romance, and Sicilian translations.[41]

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[38] Examples include Robert Roth, *Die Pferdeheilkunde des Jordanus Ruffus* (Lötzen (Ostpr.): Taschenberger, 1928); Theodoric of Cervia, *Die Pferdeheilkunde des Bischofs Theodorich von Cervia: Abhandlung I*, trans. by Erich Dolz, 3 vols (Friedrich-Wilhelm-Universität, 1935), I; Gisbert Sponer, 'Die Pferdeheilkunde des Ipocras Indicus' ([s.n.], 1966).

[39] Giordano Ruffo and Yvonne Olrog Hedvall, 'Lo libro dele marescalcie dei cavalli: Cod. 78C15 Kupferstichkabinett, Berlin : trattato veterinario del Duecento' (University of Stockholm, 1995); Lia Brunori Cianti and Luca Cianti, *La pratica della veterinaria nei codici medievali di Mascalcia* (Bologna: Edagricole, 1993), p. 241.

[40] Brigitte Prévot, *La science du cheval au moyen age: le Traité d'hippiatrie de Jordanus Rufus.* (Paris: Klincsieck, 1991), pp. 19–23.

[41] Gerardo Pérez Barcala and José Luis Pensado Tomé, *Tratado de Albeitaria, Introdución, Transcrición e Glosario: Revisión Para a Imprenta e Edición En Apéndice* (Santiago de Compostela: Xunta de Galicia, 2004); Patrizia Arquint, 'Il Volgarizzamento Occitanico Del "Liber de Medicina Equorum" Di Giordano Ruffo: Edizione Critica' (unpublished Tesi di dottorato, Università degli Studi di Siena, 2007); Antonio Montinaro, 'Cola de Jennaro, "Della Natura Del Cavallo e Sua Nascita" (Tunisi, 1479): Edizione Di Un Volgarizzamento Inedito Da Giordano Ruffo' (unpublished Tesi di Dottorato, Università degli Studio di Roma 'La Sapienza', 2009); Aldo

Scholars have long recognised that the size of Jordanus' textual legacy is an impediment to a holistic study of the tradition. Klaus-Dietrich Fischer argued that the sheer number of manuscripts was putting off potential editors, a problem which has only worsened since Montinaro increased our estimation of the Jordanus corpus, first to 160 in 2010 and then to 173 in 2015.[42] This perhaps explains why scholars have favoured smaller-scale studies of vernacularisation, or analyses of linguistic and textual variations that use a relatively small corpus for comparison. For instance, Roberto Benedetti's discussion of a fragment of an Italian translation of *De medicina equorum* in the Udine state archive, or Sandro Bertelli's study of the 17 Italian witnesses of the treatise held in libraries in Emilia Romagna.[43] The Latin text of *De medicina equorum* has not been addressed since the nineteenth century, with the consequence that all comparative studies of Jordanus' text, its vernacularisation, and the broader *hippiatric* tradition have been forced to use Molin's 1818 edition as the Latin comparator. This is remarkable given that *hippiatric* scholarship has largely deemed it unfit: Jean-Louis Gaulin called it 'barely accessible, unequally reliable, and executed based on a single manuscript'.[44] Initially, this thesis was intended to be a new edition of the Latin text of Jordanus Ruffus, based either on a single earlier manuscript or (if it proved feasible) a critical edition. However, it became clear in the early stages of the project that a much greater understanding of the

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Fichera, 'L'edizione Dei Due Trattati Di Mascalcia in Volgare Siciliano Del Codice 2394 Della Biblioteca Riccardiana Di Firenze' (unpublished Tesi di Dottorato, Università degli Studi di Catania, 2015).

[42] Klaus-Dietrich Fischer, '"A Horse! A Horse! My Kingdom for a Horse!" Versions of Greek Horse Medicine in Medieval Italy', *Medizinhistorisches Journal*, 34 (1999), 123–38 (p. 131).

[43] Roberto Benedetti, 'La "Mascalcia" di Giordano Ruffo di Calabria secondo le prime redazioni volgari: il caso del frammento 159 dell'Archivio di Stato di Udine', in *Lo scaffale della biblioteca scientifica in volgare (secoli XIII - XVI): Atti del Convegno (Matera, 14-15 ottobre 2004)*, ed. by Rita Librandi and Rosa Piro (Firenze: SISMEL, 2006); S. Bertelli, 'La «Mascalcia» di Giordano Ruffo nei più antichi manoscritti in volgare italiano conservati in Emilia Romagna', in *PALLAS*, 2016, CI, 293–321.

[44] Venice, Biblioteca Marciana, MS Lat. VII 24, ff. 55-71, Jean-Louis Gaulin, 'Giordano Ruffo et l'art Vétérinaire', *Micrologus: Natura, Scienze e Società Medievali. Nature, Sciences and Medieval Societies*, 2 (1994), 185–98 (p. 185).

social, cultural, and intellectual contexts of the *hippiatric* tradition were necessary for a new edition to have any merit. As such, it was decided that a thematic investigation of the theory and practice of horse-medicine was both a more suitable project and necessary preparation for a later critical edition.

Animal history and the animal turn

To investigate the contexts of the *hippiatric* tradition in a way that would not marginalise the medieval horse it was necessary to construct a methodology that deals with the challenges of accessing non-human historical subjects. This is one of the principal aims of animal history and the 'animal turn': codeveloping and interdisciplinary movements in social sciences and humanities that reject the primacy of humans as subjects of study and recognise the animal-human entanglements present everywhere one cares to look.[45] Social historians have investigated the experiences of horses in the economy of Hanoverian London, the industrialisation of North America, and warfare in the long-nineteenth century.[46] These discussions often centre on the question of agency: the extent to which we can demonstrate that non-human animals had the intentional capacity to define or shape events and therefore are worthy of historical study. As Erica Fudge noted in her seminal proposition on the writing of animal history, agency has often been employed as the distinguishingly *human* feature that defines all humans as proper historical subjects.[47] This created a challenge for scholars who wanted to incorporate the non-human into

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[45] For key overviews of the relationship between Animal Studies and History, see Erica Fudge, 'What Was It like to Be a Cow? History and Animal Studies', in *The Oxford Handbook of Animal Studies*, ed. by Linda Karlof, 2014; Cary Wolfe, 'Moving Forward, Kicking Back: The Animal Turn', *Postmedieval: A Journal of Medieval Cultural Studies*, 2 (2011), 1–12.

[46] Thomas Almeroth-Williams, 'The Brewery Horse and the Importance of Equine Power in Hanoverian London', *Urban History*, 40.03 (2013), 416–441; Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge, Mass.: Harvard University Press, 2008); David Gary Shaw, 'The Torturer's Horse: Agency and Animals in History', *History and Theory*, 52.4 (2013), 146–67.

[47] Erica Fudge, 'A Left-Handed Blow : Writing the History of Animals', in *Representing Animals*, ed. by Nigel Rothfels (Bloomington: Indiana University Press, 2002), pp. 3–18 (p. 13) The assertion is originally from Marx, via E. M. Thompson.

social and cultural history, as David Shaw put it: 'to deny agency seems almost to deny historical significance'.[48] Jason Hribal spoke of the necessity to write animal history 'from below', focussing not just on agency but also class in order to treat animals not only as subjects, but historical actors. Hribal saw animal labour as a negotiation, and the water fountains and other provisions for working animals in nineteenth century American cities as well as the increasing level of legal protection afforded to animal labourers as the material and cultural evidence of non-human agency.[49] This focus on agency and 'writing animals into' historical events was taken up by Sandra Swart and Gervase Phillips in their studies of horses in the context of the Second South African War (1899-1902) and the American Civil War (1861-65).[50] The recent interest in veterinary history as an integral part of the study of medicine and health is evinced by a special issue of the Social History of Medicine in 2014 and a 2018 collection that explored the history of 'One Health'.[51] Not only did this latter collection study 'the history of nonhuman animals as subjects in their own right and for their own sakes', but it also placed animals and animal-care at the centre of modern medicine.

Medievalists have been somewhat reluctant to engage with many of the broader features of the animal turn, especially when it comes to investigating the material situations and experiences of animals themselves.[52] This is particularly remarkable in military history given the central importance of horses and other animals to the medieval commission of war. R.H.C Davies published a comprehensive if now somewhat dated

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[48] David Gary Shaw, 'A Way with Animals', *History and Theory*, 52.4 (2013), 1–12 (p. 7).

[49] Jason Hribal, 'Animals, Agency, and Class: Writing the History of Animals from Below', *Human Ecology Review*, 14.1 (2007), 101–12.

[50] Gervase Phillips, 'Writing Horses into American Civil War History', *War in History*, 20.2 (2013), 160–81; Sandra Swart, '"The World the Horses Made": A South African Case Study of Writing Animals into Social History', *International Review of Social History*, 55.2 (2010), 241–63.

[51] Saurabh Mishra, 'Veterinary History Comes of Age', *Social History of Medicine*, 2014; Abigail Woods and others, *Animals and the Shaping of Modern Medicine: One Health and Its Histories* (Basingstoke: Palgrave Macmillan, 2018)

[52] For an excellent overview of the current forays into medieval animal studies and the limitations of scholarship in this area, see Anna Taylor Lisa, 'Where Are the Wild Things? Animals in Western Medieval European History', *History Compass*, 16 (2018), 1–12.

account of the origins and development of the medieval warhorse as a cultural and corporeal entity in 1989. In the 1990s, Ann Hyland wrote several wide-ranging studies of the horses of premodern Eurasian cultures that also suffer somewhat from their breadth of material.[53] Carol Gillmor took a logistical approach to the development and training of elite horses for war and chivalric games, inferring the nutritional and training requirements of the medieval warhorse from the regimens developed for modern, scientific sport equestrianism.[54] Sven Ekdahl presented a prosopographical study of the military and work horses of the Teutonic Order in late-medieval Prussia; focussed particularly on the provision and use of animals and the military order's breeding systems.[55] Andrew Ayton and Charles Gladitz also explored later medieval breeding, acquisition, mustering, and replacement of military horses.[56]

The acceleration of the animal turn from the early 2000s has prompted some medievalists to consider the social and cultural representation of horses, particularly through the chivalric and romantic literature of medieval elites. Jeffrey Cohen and Susan Crane both argued that the warhorse was a powerful tool through which the expectations and identity of the medieval elites could be expressed.[57] Antonella Sciancalepore has demonstrated how elite animals – hawks and horses – functioned as extensions of the

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[53] Ann Hyland, *The Warhorse, 1250-1600* (Stroud: Sutton, 1998); *The Horse in the Middle Ages* (Stroud: Sutton, 1999).

[54] Carroll Gillmor, 'Practical Chivalry: The Training of Horses for Tournaments and Warfare', *Studies in Medieval and Renaissance History*, 13 (1999), 5–29; for logistical approaches to medieval military animals see also Bernard S. Bachrach, 'Caballus et Caballarius in Medieval Warfare', in *The Study of Chivalry: Resources and Approaches*, ed. by Howell Chickering and Thomas H Seiler, - (Kalamazoo: Western Michigan University, Medieval Institute Publications, 1988), pp. 173–211.

[55] Sven Ekdahl, 'Horses and Crossbows: Two Important Warfare Advantages of the Teutonic Order in Prussia.', in *The Military Orders, 2: Welfare and Warfare*, ed. by Helen Nicholson, - (Aldershot: Ashgate, 1998), II, 119–51.

[56] Andrew Ayton, *Knights and Warhorses: Military Service and the English Aristocracy Under Edward III* (Woodbridge: Boydell Press, 1994); Charles Gladitz, *Horse Breeding in the Medieval World* (Dublin: Four Courts Press, 1997).

[57] Jeffrey Jerome Cohen, *Medieval Identity Machines* (Minneapolis: University of Minnesota Press, 2003); Crane, 'Chivalry and the Pre/Postmodern'.

bodies and identities of members of the medieval military aristocracy.[58] Unfortunately, these somewhat disparate examples of animal scholarship have yet to coalesce into a coherent trend investigating the social construction and material experiences of medieval horses as historical actors. Scholars have either approached horses through the study of documents and historical narratives or as semiotic vessels of complex meaning, rarely combining these approaches to consider the intellectual and cultural frameworks that informed horse-human interactions.

This uncertainty has had a muting effect on the study of animal health and care. The later Middle Ages produced a rich tradition of horse-medicine treatises that supported and informed an array of veterinary practitioners, many of whom were responsible for breeding, training, and maintaining elite military horses. However, the historical study of medieval horse-medicine has been rather stilted: it has focussed mainly on the philological investigation of veterinary treatises and has shown a reluctance to place these texts into a broader cultural or medical context.[59] There have been several studies in the past decade that have broken new ground for using veterinary texts to consider the representations and experiences of domesticated animals and discuss the theory and practice of animal-medicine as suitable subjects of social history. These have all benefited to a greater or lesser extent from developments in animal history and the social history of medicine. In her 2016 thesis, Elizabeth Leet used the French translation and tradition of *De medicina equorum* as the basis for discussing the cultures of riding and

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[58] Antonella Sciancalepore, 'Hawks and Knights: (De)Constructing Knightly Identity through Animals in French Chivalric Literature (12th -13th Century)', *Reinardus*, 29 (2017), 120–41; Antonella Sciancalepore, *Il cavaliere e l'animale. Aspetti del teriomorfismo guerriero nella letteratura francese medievale (XII-XIII secolo)* (Macerata: EUM, 2018); Paul H. Rogers, 'Rediscovering the Horse in Medieval French Literature', *Neophilologus: An International Journal of Modern and Mediaeval Language and Literature*, 97.4 (2013), 627–39.

[59] Antonio Montinaro, *La tradizione del De medicina equorum di Giordano Ruffo: con un censimento dei testimoni manoscritti a stampa* (Milano: Ledizioni, 2015); Bertelli, CI; A notable exception to this trend is Housni Alkhateeb Shehada, *Mamluks and Animals: Veterinary Medicine in Medieval Islam* (Leiden: Brill, 2013).

animal-care amongst Anglo-Norman elite women.[60] In 2015 Hannele Klemettilä examined the care and cultural representation of medieval hunting dogs and dog-handlers through didactic literature, in particular the text and beautiful illustration of a fifteenth century manuscript of Gaston Fébus' *Livre de Chasse*.[61] Housni Alkhateeb Shehada's 2013 *Mamluks and Animals* presented an expansive if somewhat general overview of veterinary medicine in medieval Islam, covering both the theory and practice of animal-care, as well as the cultural and religious construction of various mundane and noble beasts. Carmel Ferragud's 2009 *Menescals i menescalia a la València medieval* is the first monograph-length study to deal comprehensively with the social context of medieval veterinary medicine, in the late-medieval Crown of Aragon. Ferragud's study benefitted both from the rich archival sources available for fourteenth-century Valencia and the scholarly traditions for studying the social milieu of Valencian medicine, laid down by Luis Garcia-Ballester, Michael McVaugh, and Lluís Cifuentes amongst others.[62]

Addressing the current research context

This thesis addresses several key *lacunae* created by the current state of research into the *hippiatric* tradition and the theory and practice of medieval horse-medicine. The focus on vernacularisation of *De medicina equorum* and the limited studies of either the Latin text of the treatise or the relationships post-Jordanus between different horse-medicine texts have left us with a poor understanding of the reception and development of late-medieval horse-medicine. This has been compounded by the lack of interest in the post-history of Jordanus and the audience for the *hippiatric* tradition. There have been very few long-term

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[60] Elizabeth S. Leet, 'Communicating with Horses: Women as Equestrians in 12th- through 14th-Century Old French, Anglo-Norman, and Middle English Literature' (unpublished PhD, University of Virginia, 2016).

[61] Hannele Klemettilä, *Animals and Hunters in the Late Middle Ages: Evidence from the BnF MS Fr. 616 of the Livre de Chasse by Gaston Fébus* (New York: Routledge, 2015).

[62] *Practical Medicine from Salerno to the Black Death*, ed. by Luis Garcia-Ballester (Cambridge University Press, 1994); Michael McVaugh, *Medicine before the Plague Practitioners and Their Patients in the Crown of Aragon,1285-1345* (Cambridge: Cambridge University Press, 1993); Lluís Cifuentes, 'Els Professionals Sanitaris de La Corona d'Aragó En l'expedició Militar a Sardenya de 1354-1355', *Arxiu de Textos Catalans Antics*, 9 (1990), 183–214.

studies of the development of the broader *hippiatric* tradition or the relationship between texts.[63]

Textual studies of the various *hippiatric* treatises have almost entirely ignored codicological variations and signs of use, meaning that we have a very blinkered understanding of the post-production lives of *hippiatric* texts; the way they were read, adapted, and analysed. Modern studies of horse-medicine treatises have overly focused on Jordanus, mirroring the great man/great doctor methodology of medical history, and have almost entirely ignored marginal treatises, anonymous texts, and remedy collections. The Jordanus-focused scholarship has also compounded the sense that certain texts, remedies, and medical practices were less important or less influential than *De medicina equorum*, by exaggerating their marginal status. The criticism of *De medicina equorum* and the broader tradition of horse-medicine has developed a substantial orthodoxy surrounding medicine and superstition. This is in part a philological problem but is also related to a lack of intercommunication between veterinary criticism and other fields, notably the history of medieval medicine. The philological study of *De medicina equorum* and the broader traditions of horse-medicine have become somewhat insular, meaning that textual criticism suffers from significant decontextualisation.

So far, the study of medieval horse-medicine has not addressed developments in animal studies nor has it made cogent comparisons with recent analyses of animal-use and care. There has been no significant engagement with the significant trends relating to the history of medicine: theories of medical pluralism, patient theory, the dynamics of choice, or the medical marketplace.[64] Discussions of the horse-doctor as a practitioner,

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[63] The two principal modern exceptions to this are both from a single scholar Martina Hurler, 'Magister Maurus: Transkription, Übersetzung und veterinärmedizinisch-historische Bedeutung des Manuskriptes aus dem Codex Harleian 3772 der British Library' (Königshausen & Neumann, 2007); Martina Schwarzenberger, 'Die Mulomedicina des Teodorico di Cervia. Neue Perspektiven mittels einer interdisziplinären Annäherung', *Pallas. Revue d'études antiques*, 2016, 323–36.

[64] Roy Porter, 'The Patient's View: Doing Medical History from Below', *Theory and Society*, 14.2 (1985), 175–98; Robert Ralley, 'Medical Economies in Fifteenth Century England', in *Medicine and the Market in England and Its Colonies, c.1450-c.1850*, ed. by Patrick Wallis and M. Jenner (Basingstoke: Palgrave, 2007); *Between Text and Patient: The Medical Enterprise in Medieval & Early*

as a civic individual, and as an occupational identity have so far been quite limited or geographically constrained.[65] There have also been few attempts to incorporate *hippiatric* texts or horse-medicine into the study of medieval animals, reflecting a reluctance amongst medievalists to engage with the 'animal turn' or to investigate the lived experiences and importance of animals in the Middle Ages.[66] Medieval horse-medicine is a prime candidate for incorporation into the history of One Health: studies of the integration of animal and human care, which recognise that health and medicine are part of a multi-species society. This reflects quite clearly the early stages of the history of veterinary medicine, when veterinarian-historians tended to have medical backgrounds or be interested in comparative pathology, zoonosis, and public health. However, the history of One Health, has not really incorporated the premodern and there is a sense that the scientific study of veterinary history should start at the eighteenth century. As such, this thesis not only incorporates the *hippiatric* texts into the history of medieval medicine, but also presents a case study for reintegrating medieval horse-medicine into the history of One Health and the historical narrative of European veterinary medicine.

Research Questions and Thesis Structure

This thesis is split into three sections of two chapters each. The first deals with the context and development of the *hippiatric* tradition, from the precursors and potential intellectual milieu of Jordanus Ruffus to the terminus point of this study at around 1500,

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Modern Europe, ed. by Florence Eliza Glaze, Brian K. Nance, and M. R. McVaugh, Micrologus' Library, 39 (Firenze: SISMEL/Edizioni del Galluzzo, 2011).

[65] Cécile Auliard, 'Les Maréchaux à l'époque Médiévale : Forgerons Ou Vétérinaires ?', *Médiévales*, 16.33 (1997), 161–73; Carmel Domingo Ferragud, *Menescals i menescalia a la València medieval* (Catarroja: Editorial Afers, 2009); Amanda Eisemann, 'Forging Iron and Masculinity: Farrier Trade Identities in Early Modern Germany', in *The Horse as Cultural Icon: The Real and Symbolic Horse in the Early Modern World*, ed. by Peter Edwards, K. A. E. Enenkel, and Elspeth Graham, v. 18 (Leiden: Brill, 2012), pp. 377–402.

[66] Leet; Francine McGregor, 'No Hoof, No Horse: Hoof Care, Veterinary Manuals, and Cross-Species Communication in Late Medieval England', in *Animal Languages in the Middle Ages - Representations of Interspecies Communication*, ed. by Alison Langdon (Basingstoke: Palgrave, 2018), pp. 197–215; Anna Taylor Lisa.

when the production of *hippiatric* manuscripts was overtaken by printed editions. This section is intended to provide a preparatory overview and 'spine' for the later analytical sections. Chapter One will address the question 'did the context of *De medicina equorum* influence its development, both in its initial phase and its later history?' by discussing Jordanus' historical context and the scientific and cultural ideas used to define and categorise the elite horse in the Late Middle Ages. Chapter Two considers the role *De medicina equorum* played in the development of the *hippiatric* tradition by discussing the standards and forms set by Jordanus and the reception and evolution of horse-medicine in the following centuries. It describes the expectations and practices of the *hippiatric* audience, identifying key textual variations and analysing the incorporation of new material into the field. The rest of this thesis uses the fractalisation of the *hippiatric* texts as a central point to discuss the development of cultures of horse-medicine. The shape and extent of these discussions is defined by the geographic and chronological distribution throughout western and southern Europe of the post-Jordanus *hippiatric* texts. The later sections of this thesis follow the *hippiatric* texts as a cynosure, returning frequently to these texts as the central intellectual engine of horse-medicine and its practitioners.

Section Two responds to the questions 'who provided care for horses in the later Middle Ages, what medical options were available, and what influenced veterinary choices?' Chapter Three discusses the range of practitioners who provided care and interventionary medicine to horses in the late Middle Ages. It considers *hippiatric* writers, royal and seigneurial stable-masters, and horse-doctors (known as marshals) as well as non-occupational horse-carers. It describes the role of status in defining and constructing horse-care and discusses the social standing, wealth, and regulation of marshals. It looks at the formation of guilds and concerns around negligence and malfeasance. It also discusses the self-fashioning of marshals and the development of their patron Saint Eligius (d. 660). Having described the range of medieval horse-carers, Chapter Four then considers the relationship between magical and miraculous horse-medicine; analysing the dynamics of choice and care. It describes the places of charms and miraculous supplication in the medieval veterinary 'marketplace', relating them to status, pathology, and emotion. It demonstrates that magical and miraculous healing were part of the broad panoply of veterinary choices available to horse-owners and expected of many different strata of horse-healers. They were not the superstitious modes of last resort.

Section Three builds on the previous sections to addresses the questions 'how did *hippiatric* writers and other horse-carers relate developmental care and maintenance to interventionary medicine? How can we approach the medieval horse as a non-human patient?' They present an occupational health model of horse-care based on constructing and maintaining a specific type of high-status animal – the *hippiatric* horse. Chapter Five discusses the development and preservation of the horse throughout its lifecycle, comparing the *hippiatric* texts with examples of practice. It analyses the noble horse as both the subject of care and as a creature constructed according to concepts of beauty and *bonitas* or goodness It looks at issues surrounding breeding and heritability, housing and nutrition that relate both to the horse's industrial capacity and attitudes towards noble equine aesthetics and behaviour. Chapter Six examines the *hippiatric* texts using ideas of patient theory raised by Foucault and Porter to discuss the medieval horse as a non-human patient. It considers the challenges inherent in applying Porter's model of the articulate patient to a non-literate, non-human animal and looks at the relationship between of pain and agency. It uses Foucauldian biopower and the 'violent care' of modern animals to discuss the role of behavioural dysfunction and bodily fashioning in medieval horse-medicine. Finally, it asks, 'to what extent can we access non-human patients, sufferers, and impairment? How should we adapt theories and practices initially developed to study human subjects?'.

Methodology

This thesis uses a rigorously interdisciplinary methodology, addressing a pan-European corpus using methods and ideas drawn principally from the History of Medicine and Animal Studies. It is based on a close analysis of a broad range of Latin and vernacular manuscripts from late-medieval Italy, Germany, France, and England. The central spine of this corpus is formed of hippiatric manuals and other horse-medicine treatises and remedy collections. These are analysed alongside medical narratives and material relating to the health and bodies of horses drawn from an array of other genres including documentary texts, civic and guild ordinances, saints' lives and miracle collections, chronicles, ballads, and natural philosophy. These genres allow me to address subjects who are otherwise historically marginalised and present a method for studying low-status horses, who are otherwise largely absent from the historical literature. I also look at images of horses and horse-care from manuscript illumination, church decoration, early

printed books, and sculpture. These images supplement textual sources for equine bodies and health allowing for a much broader representation of the cultures of horse-care. I approach these texts using methods developed within Critical Animal Theory, Social Studies, and Animal History to study modern multi-species interactions and the industrialisation of non-human animals. This allows me to consider the dynamics of power and care surrounding medieval horses and to create a paradigm of the non-human patient and to address concepts of articulacy and suffering. This thesis presents a model for studying premodern theories and practices of animal-care within their social and cultural contexts and demonstrates the importance to the history of medicine of studying non-human animal health.

Chapter 1: The intellectual and cultural contexts of the *hippiatric* tradition

Introduction

Jordanus Ruffus's *De medicina equorum* is considered the foundation text for a tradition of veterinary medicine extending from the thirteenth century to the early-modern period. Yves Lignereux calls it the 'principal text of the Middle Ages…which would inspire all the subsequent works of Theodoric of Cervia (1205-1298) Petrus de Crescentiis (1233-1307), Laurentius Rusius (1288-1347) and Guillaume de Villiers (1456), etc'.[67] Sandro Bertelli believes that Jordanus 'if not introduced then at least promoted the science of *hippiatric* knowledge in southern Italy'.[68] *De medicina equorum* was disseminated widely and is extant in at least 173 manuscripts. It was translated into eight languages; notably into Italian in Bologna in 1290, Sicilian in the first quarter of the fourteenth century and French around 1350. It was printed a number of times, notably in Venice, first in 1492 and again in 1561.[69] Given the importance of Jordanus' treatise to the development of veterinary medicine, it is unfortunate that we know very little about him, beyond the implications within his text. He came from a powerful Norman family, which held a prominent position close to the Hohenstaufen Emperor Frederick II (king of Sicily from 1198-1250). His uncle Pietro Ruffo was made Frederick's Grand Marshal in 1244 and

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[67] 'le livre princeps du Moyen-Âge…inspirera toutes les productions ultérieures, de Théodoric Borgognoni (1205-1298) à Pierre de Crescens (1233-1307), et de Laurentius Rusius (1288-1347) et à Guillaume de Villiers (1456), etc.' Yves Lignereux, 'Les Soins Vétérinaires aux Chevaux au Moyen Âge', in *Les animaux malades en Europe occidentale (VIe-XIXe siècle): actes des XXVes Journées internationales d'histoire de l'abbaye de Flaran, 12, 13, 14 septembre 2003*, ed. by Mireille Mousnier (Toulouse: Presses Universitaires du Mirail, 2005), pp. 41–56 (p. 44).

[68] '…se non introdusse, per lo meno favorì la conoscenza del sapere ippiatrico nell'Italia meridionale' Sandro Bertelli, 'La Mascalcia di Giordano Ruffo nei più antichi manoscritti in volgare conservati a Firenze', in *La veterinaria antica e medievale (testi greci, latini e romanzi). Atti del II Convegno (Catania 3-5 ott 2007)*, ed. by Vincenzo Ortoleva and M. R. Petringa (Lugano: Athenaion, 2009), pp. 389–427 (p. 393).

[69] It was also translated into French, Catalan, Galician, Occitan, Sicilian, German and Hebrew, see Antonio Montinaro, 'Per La Tradizione Del De Medicina Equorum de Giordano Ruffo (Con Un Elenco Dei Testimoni Manoscritti)', *Medioevo Lettarario d'Italia*, 7 (2010), 29–64 (pp. 56–58).

Count of Catanzaro in 1252 under Frederick's successor Conrad IV (king of Sicily from 1250-1254). Pietro's great-nephew Pietro II would also be Count of Catanzaro under Charles of Anjou (ruled Sicily from 1266-1285). Jordanus was either cousin or brother to the celebrated Sicilian court poet Folco Ruffo. He can probably be identified with the 'Jordanus de Calabria' named as castellan of Monte Cassino in 1239 by the *Chronicle* of Riccardo di S. Germano.[70] When Frederick II died in 1250 the kingdom of Sicily fell first to his legitimate heir Conrad IV, and then in 1254 to Conrad's son Conradin, both acting with the support of Pope Innocent IV. Frederick's natural son Manfred, who had initially accepted Conradin's primacy, raised an army and defeated the papal forces at Foggia on 2nd December 1254. During this conflict, the Ruffo family sided with Conradin and the Papacy against Manfred, and Jordanus is presented as fighting alongside or at the behest of Pietro and Fulco in Calabria and Apulia. According to one account, Jordanus was captured with his retinue by Manfred's forces near San Marco d'Allunzio and was later rescued from Tropea by his brother Pietro Ruffo, who has to flee in the night by ship, to Naples and the safety of the Papal Court.[71] The *Chronicle* of Saba Malaspina says that Jordanus was killed in 1256 at Salerno, when he was captured along with Pietro's household and retinue, whilst his uncle was in Terracina, having 'seized the governance of Corradin'.[72] Pietro was killed in 1257 by an assassin in Messina, during riots instigated by Manfred. Domizia Trolli argued that Jordanus should not be associated with the figure who fought with Pietro against Manfred as the position of marshal was 'an inferior rank' within the army. Given their close familial relationship and the multiple attestations for Jordanus fighting with Pietro, this seems like an unreasonable argument.[73] However, it is

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[70] *Ryccardi de Sancto Germano notarii Chronica, in usum scholarum*, ed. by G. H. Pertz (Hannover: Impensis Bibliopolii Hahniani, 1864), p. 203.

[71] *Nicolai de Jamsilla Historia de rebus gestis Friderici II. imperatoris ejusque filiorum Conradi, et Manfredi Apuliæ et Siciliæ regum ab anno MCCX. usque ad MCCLVIII. Adnectitur anonymi supplementum de rebus gestis ejusdem Manfredi, Caroli Andegavensis, et Conradini regum ab anno MCCLVIII. usque ad MCCLXV.*, ed. by Ferdinando Ughelli (Naples: Joannis Gravier, 1770), pp. 86–90.

[72] Saba Malaspina, Walter Koller, and August Nitschke, *Die Chronik des Saba Malaspina* (Hannover: Hahnsche Buchhandlung, 1999), pp. 112–13.

[73] Domizia Trolli, *Studi su antichi trattati di veterinaria* (Parma: Univ. degli Studi, 1990), p. 19.

reasonable to accept that a reference to a Jordanus Ruffus de Calabria in a charter from 1272 is not proof that the *hippiatric* writer survived until the 1270s.[74]

Jordanus' association with Frederick II has to, in part, be guessed at. He is unlikely to have been 'the knight responsible for the stables of the Emperor', as Yvonne Poulle-Drieux argues, nor was he Frederick's 'chief veterinarian'.[75] He did not witness Frederick's will with Pietro and Fulco, and he certainly did not sign it as 'Jordanus, Magnus Justitiarus Ruffus de Calabria, imperialis Marascallus', this seems to be a fabrication of the eighteenth century, which has unfortunately been repeated several times.[76] It is also difficult to evidence Trolli's argument that Jordanus' dedication of his treatise to Frederick was not just an act of homage from a subaltern to his superior, but also an act in the name of an old friendship, and that in fact Frederick was one of the 'amicissimi' who encouraged Jordanus to write down his knowledge and experience.[77] The references to Frederick within Jordanus' text are quite limited. Jordanus refers to himself in his prologue as 'miles in marestalla' – knight farrier, in the service of the lord Emperor Frederick II, 'whose sacred memory I will hold onto diligently in recollection'. In the explicit of the principal Latin edition he is identified in the third person as a 'miles et familiaris' of Frederick, 'who instructed him fully in everything written above so that he would become commendably experienced in all the healing of the horses of the said

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[74] 'Henrico de Cimily, cui concessimus terram Stronguli, provisio contra Jordanum Ruffum de Calabria, qui facit macellum in dicta terra, occasione quod ibi possidet feudum' *Regesta chartarum Italiae: Gli atti perduti della cancelleria angioina : Trans : da Carlo de Lellis : Pubbl : (Parte 1: Il regno di Carlo I. Vol. 1-2*, ed. by Riccardo Filangieri and Bianca Mazzoleni (Roma: R. Istituto Storico Italiano per il Medio Evo, 1939), p. 354.

[75] Yvonne Poulle-Drieux, 'Les Chevaux Malades Au Moyen Âge: Leurs Maladies, Qui Les Soigne et Comment', in *Le Cheval Dans La Culture Médiévale*, ed. by Bernard Andenmatten, Agostino Paravicini Bagliani, and Eva Pibiri (SISMEL edizioni del Galluzzo, 2015), pp. 145–66 (p. 145). Klaus-Dietrich Fischer, ' "A Horse! A Horse! My Kingdom for a Horse!" Versions of Greek Horse Medicine in Medieval Italy', *Medizinhistorisches Journal*, 34.2 (1999), 123–38 (pp. 129–30).

[76] Pietro Napoli-Signorelli, *Vicende della coltura nelle due Sicilie* (Naples: Presso Vincenzo Flauto, 1784), p. 258; Jordanus Ruffus, *Jordani Ruffi Calabriensis Hippiatrica*, ed. by Hieronymus Molin (Padua: Seminarii Patavini, 1818), p. VII; Ruffo and Olrog Hedvall, p. 2.

[77] Trolli, p. 20.

Lord'.[78] It is possible that this explicit was added later and was not part of Jordanus' original. The rest of the treatise is written in the first person and presents Jordanus' knowledge and practice as the product of personal experience. The earliest identified Italian translation of Jordanus' treatise, produced in Naples in 1290, closes with 'this work was produced by the knight of Calabria following the greatest study of how to provide the best medicine for all horses'. Jordanus is identified as the 'famigliale' of Frederick II, but there is no indication that his treatise includes aspects of the Emperor's veterinary knowledge or skill.[79] Although we might expect Jordanus to attribute some of his remedies to Frederick, if the Emperor's veterinary influence on the text was that great, direct references to authorities are entirely absent from the treatise. Although it is hard to say what, if any, influence Frederick had on Jordanus' veterinary medicine or care, there are other ways in which the Emperor may have impacted the production of the text, and the development of the *hippiatric* tradition.

Frederick's predilection for translating and encouraging scientific knowledge, and in particular knowledge of animals and the natural world, was continued by his successors Manfred and Charles of Anjou. Frederick dedicated his falconry text to his natural son Manfred who revised his father's work after his death. Bartholomew of Messina (fl. 1258-66) produced a Latin translation of the Greek horse-medicine text, the *ad Bassam* of Hierocles, whilst at the 'court of the most illustrious Manfred, most serene king of Sicily'.[80] This is likely the first Byzantine horse-medicine text available to be incorporated into the nascent Latin *hippiatric* tradition. Anne McCabe has suggested that Manfred commissioned this work, so similar in form to that of Jordanus, because of Ruffus' disgrace, having been executed for treason.[81] Charles of Anjou maintained the scientific traditions of his Hohenstaufen predecessors, after he had wrested control of the Kingdom of Sicily from Manfred in 1266. He continued the practice of transmitting Arabic learning through translation by borrowing medical texts from the emir of Tunis.

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[78] *Jordanus Ruffus*, p. 116.

[79] Ruffo and Olrog Hedvall, pp. 150–51.

[80] Vatican City, BAV, Urb. Lat. MS 1344, f. 1.

[81] Anne McCabe, *A Byzantine Encyclopaedia of Horse Medicine: The Sources, Compilation, and Transmission of the Hippiatrica* (Oxford: Oxford University Press, 2007), pp. 239–41.

This process is famously represented in a miniature adorning the first page of the Latin translation of Rhazes' *Al-Hāwī*, which shows the emir presenting the book to emissaries who then pass it to Charles, who gives it to a Jewish translator: Farag ben Salam.[82] Rhazes' 10th century medical compendium was translated into Latin under the name *Liber continens* at a scriptorium that was active between 1277 and 1282, and which produced several medical *tacuini*, a life of St. Eloi, and a *chronique universelle*.[83] The Latin version of the *Al-Hāwī* was produced at significant cost, using two translators: the aforementioned Farag ben Salam and Matteo Scillate de Salerne. In 1277 Charles of Anjou ordered Matteo to assist another Jewish translator, Moses of Palermo, to learn Latin, so that he could translate the horse-medicine text attributed to 'Ipocras medicus Indie' from Arabic.[84] Usually Farag and Moses are treated as separate historical actors, however, Gurrado has suggested that they might have been one and the same. He notes that the translators of the medical encyclopaedia are referred to as 'Faradj Moses ben Solomon' and 'Matheu de Salerne', and that they were explicitly designated as the translators of *Al-Hāwī*, one year after Matteo was asked to assist 'le magister Musa' with the 'Ipocras' horse-medicine. Klaus-Dietrich Fischer believed that both Faraj and Moses worked on *Al-Hāwī*.[85] In either case, it is clear that the Angevin court had a particular interest in both human and animal medicine, and the transmission of Arabic knowledge.[86] This tradition was continued by Pietro de Crescenzi (d. c. 1320), the jurist and agronomist who dedicated his twelve volume *Opus Ruralium Commodorum*, which was influenced by Jordanus's text, to Charles

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[82] Paris, BNF, Latin MS 6912, f. 1ᵛ

[83] Sadly, only the *chronique* survives. Maria Gurrado, 'Traduction et copie à la cour des Angevins de Naples: l'encyclopédie médicale Al-Hawi et le personnel du "Scriptorium" de Charles Ier (1277-1282)', *Scriptorium: revue internationale des études relatives aux manuscrits*, 67.2 (2013), 259–91 (p. 260).

[84] For the Latin edition with a modern Italian translation see: Ipocras Indicus, *Trattati di mascalcia attribuiti ad Ippocrate*, ed. by Luigi Barbieri and Pietro Delprato, trans. by Moisè de Palermo (Bologna: Presso G. Romagnoli, 1865).

[85] Gurrado, p. 263; Klaus-Dietrich Fischer, 'Moses of Palermo, Translator from the Arabic at the Court of Charles of Anjou', *Histoire Des Sciences Medicales*, 17 (1982), 278–81 (p. 279).

[86] see also, Jean Dunbabin, *The French in the Kingdom of Sicily, 1266-1305.* (Cambridge: Cambridge University Press, 2016), pp. 228–34.

II of Anjou (King of Naples from 1285-1309). It might also be reflected in the incidence of horse-healing miracles amongst the collection of St. Louis of Toulouse, the son of Charles II.[87] There is a sense of continuity amongst the Sicilian courts with a steady, if not overwhelming, stream of *hippiatric* texts being produced alongside human medicine and natural philosophy.

This production blossomed in the later part of the thirteenth and fourteenth centuries. The earliest surviving Italian translation of Jordanus is the illustrated manuscript in the Berlin Kupferstichkabinett, dated to around 1290, which Yvonne Olrog-Hedval has edited.[88] French and Sicilian translations are found as early as the beginning of the fourteenth century.[89] By the middle of the fourteenth century there were at least half a dozen new *hippiatric* texts in Italy that were founded on, intersected with, or paralleled Jordanus' treatise.[90] This is only a preliminary assessment, more will surely be identified as the textual tradition is unpicked and variations between texts are better understood. Developing traditions in Castilian, Catalan, and Portuguese also benefited from the works of Jordanus and his successors.[91] The Jordanus-influenced group of texts formed a *hippiatric* tradition, which incorporated new knowledge and new practices to develop and enhance their treatises, but with a central keel that Jordanus had laid down. The new writers were often, though not exclusively, marshals or stable-masters

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[87] More on this chapter 2.

[88] Ruffo and Olrog Hedvall.

[89] Prévot; Gregorio, 'Il Codice De Cruyllis-Spatafora in Antico Siciliano, Del Sec. XIV, Contenente La Mascalcia Di Giordano Ruffo', *Zeitschrift Für Romanische Philologie*, 29 (1905), 566–606; Catalan, Galician, Hebrew, and German translations were made by the second quarter of the fifteenth century, see Montinaro, *La tradizione del De medicina equorum di Giordano Ruffo*, pp. 203–12.

[90] Theodoric of Cervia, Laurentius Rusius, Petrus de Crescentiis, Magister Maurus, Dino Dini, Uberto de Curtenova. See Domizia Trolli, *Studi su antichi trattati di veterinaria* (Parma: Univ. degli Studi, 1990); Giovanni Battista Ercolani, *Ricerche storico-analitiche sugli scrittori di veterinaria*, 3 vols (Torino: Tipografia Ferrero e Franco, 1851), I, pp. 372-453.

[91] Yvonne Poulle-Drieux, 'L'hippiatrie Dans l'Occident Latin Du XIIIe Au XVe Siècles', in *Médécine Humaine et Vétérinaire à La Fin Du Moyen Age*, ed. by Guy Beaujouan (Paris: Droz, 1966), pp. 15–167 (pp. 29–39).

and there is a tension between personal experience and learned knowledge. The additions often reference ancient writers: physicians such as Hippocrates and Galen; veterinary writers such as Vegetius and Chiron; and agronomists such as Palladius and Varro. This was all built upon the foundation laid by Jordanus' text, which helps to explain why he has been the focus of scholarship for so long. Later writers responded to the intellectual lacunae in Jordanus' text; they incorporated illnesses, defects and dysfunctions that Jordanus had erroneously left out. In many ways the *hippiatric* tradition functioned as a commentary on Jordanus' foundational text; it did so in an environment in which, for instance, charms and prayers formed a part of a horse-doctor's repertoire, and yet were conspicuously absent from Jordanus' text.

What standard did Jordanus set?

Jordanus Ruffus had two major impacts on the intellectual history of veterinary medicine in the late medieval Latin west. Firstly, his text was remarkably popular. It was disseminated widely and translated into around nine languages.[92] Secondly, Jordanus' treatise became the foundational text for a tradition of *hippiatric* medicine that continued well into the Early Modern period. It formed the standard for dozens of other *hippiatric* writers, who copied from him liberally, borrowing his methodology and format as well as commenting and adding to his work. Echoes of Jordanus' text were visible as influences on Gervase Markham's (d. 1637) compendium of veterinary medicine, husbandry, and farriery, which was printed from 1610 to the early nineteenth century.[93] Jordanus helped to trigger the development of an intellectual veterinary movement; created the framework, the grammar, and many of the systems and ideas that later writers followed. To chart the development of the occidental *hippiatric* tradition it is useful to first think about the standard that Jordanus set.

One of the most important features of Jordanus' text is its holistic nature; it is not merely a remedy collection, but a fully formed schema intended to construct, develop,

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[92] Antonio Montinaro cites at least 160 extant extant manuscripts and around a dozen printed editions. *La tradizione del De medicina equorum di Giordano Ruffo.*

[93] Gervase Markham, *The Compleat Horseman*, ed. by Daniel Peri Lucid (Boston: Houghton-Mifflin, 1975).

and maintain a particular type of elite horse. Traditionally scholars separate Jordanus'
treatise into two sections. The first five parts, commonly referred to as the *hippological*
section, covers selection, breeding, breaking and domestication, developmental training,
and general welfare and maintenance. The much larger sixth part, which usually
comprises of upwards of fifty-five chapters is often referred to as the *hippiatric* section,
from which the overall name of the tradition derives. Neither of these terms is found in
the text itself and they are largely the product of later cataloguing efforts.[94] These two
sections are usually separated intellectually by scholars and analysed individually, with little
sense of a crossover or correlation between the two. The second section is often deemed
the much more important of the two, the more original 'since it contains the germ of a
truly scientific veterinary medicine'.[95] The inclusion of both *hippological* and *hippiatric*
sections was quite innovative, at least within the Latin context. Discussions of breeding,
training, and caring for horses are common in the medieval Arabic world, and they
formed a genre of treatises in their own right.[96] Similar texts are largely absent from the
medieval Greek and Latin traditions, prior to Jordanus, and the classical equestrian work
of Xenophon, which so influenced Renaissance horsemen such as Federico Grisone and
William Cavendish, seem to have been unavailable during the Middle Ages.[97]

Jordanus' real innovation was not just to present both a care and training guide
alongside a set of pathology/remedy pairs, but to incorporate these two into a complete
manual for developing a horse, moulding it into a unique and peculiarly useful animal,

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[94] However, because this tradition is very well-established the present volume will also follow this
scheme.

[95] 'La seconde partie de la *Mareschaucie des chevax*, et de loin la plus importante, est certainement
encore plus originale, puisqu'on y trouve les germes d'une véritable médecine vétérinaire
scientifique', Brigitte Prévot and Bernard Ribémont, *Le cheval en France au Moyen Age: sa place dans
le monde médiéval ; sa médecine, l'exemple d'un traité vétérinaire du XIVe siècle, la Cirurgie des chevaux* (Caen:
Paradigme, 1994), p. 337.

[96] See note 114 below.

[97] Federico Grisone, *Federico Grisone's the Rules of Riding: An Edited Translation of the First Renaissance
Treatise on Classical Horsemanship*, trans. by Elizabeth M Tobey (Tempe, Arizona: Arizona Center
for Medieval and Renaissance Studies, 2014); William Cavendish, *Methode et Invention Nouvelle de
Dresser Les Chevaux* (Antwerp: Jacques Van Meurs, 1658).

and then maintaining it throughout its working life. The *hippiatric* section of Jordanus' text is particularly interested in occupational health and industrial hazards. He was concerned by poor maintenance and diet, inexperienced handling, and overwork – with the onus being on the horse's handlers to be experienced, knowledgeable, and show sufficient care. Jordanus' holistic approach to the *hippiatric* treatise is perhaps his most significant legacy, and its resonances are visible in the 'complete' guides to horse-care and animal husbandry written by Gervase Markham in the Early Modern period.[98]

Jordanus also set many of the standards for describing equine illnesses and prescribing remedies. His fifth and sixth chapters separate natural ailments and defects from accidental infirmities.[99] These two groups represent respectively the bodily states that a marshal might avoid through careful breeding or careful inspection at the horse-market, and the illnesses and injuries that horse-carer would commonly expect to have to remedy or avoid. Several of the illnesses presented by Jordanus in chapter six, such as 'jardis in garectis' and 'gallis in cruribus' are described in the previous chapter as being hereditary, reinforcing the importance of diligent selection of breeding pairs. Jordanus had a rigid system for describing illnesses; first localising the ailment, then discussing its biological mechanism, causation, and any aggravating factors, before giving a Latinised version of the vernacular name for the illness. For instance:

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[98] Louise Hill Curth, *'A Plaine and Easie Waie to Remedie a Horse': Equine Medicine in Early Modern England*, History of Science and Medicine Library, 41 (Leiden: Brill, 2013), pp. 239–40.

[99] 'de defectis, mutationibus vel augmentationibus, aut aegritudinibus naturalibus' and 'accidentalibus infirmitatibus vel laesionibus', *Jordanus Ruffus*, p. 20.

De Vivulis

> There are other glands, which lie between the neck and the head of the horse,
> namely under each part of the jawbone which become swollen due to rheum
> from the head flowing down the channel of the neck in such a manner that
> the sufferer can neither eat nor drink nor cough anything up, and unless this
> is dealt with immediately the pathways in the sufferer's throat will close up
> entirely, and the sufferer will be compelled to fling itself down on the ground
> such that it will dash its head upon the ground and it will rarely or never get
> up again. These are called 'vivulae' in the vernacular.[100]

Jordanus' references to the vernacular names of illnesses and his transferring them into
Latin speaks to a desire to codify knowledge localised to Southern Italy into the language
of science. His disease names are a combination of terms common to medical and
scientific writing with attestations in Palladius, (see concordances in Roth, Prévot, Trolli),
Isidore of Seville etc. and terms with no clear written precedent. Many of these, through
Jordanus, become common parts of the *hippiatric* tradition. For instance, 'anticor', an
abscess in the chest, which is explained by Jordanus as being 'close to the heart' (contra
cor). Some of these are clearly derived from their Southern Italian and Sicilian linguistic
milieu. For instance, 'cimoira', an illness of the head and nasal passages, is the Sicilian
version of *cimurro*, a synonym of *morva*, linked to the Old French *chamoire*.[101]

Jordanus's biological and veterinary knowledge was grounded in a very
rudimentary form of Galenic theory. He usually explained illnesses through blockages or
inflammations caused by misdirected fluids, for instance 'strangles', an inflammation of

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[100] 'Sunt et aliae glandulae, quae jacent inter collura et capet equi, videlicet sub utraque parte
maxillarum, quae similiter augmentatur ex reuma capitis, meatusque gutturis taliter coarctantes,
quod nihil patients potest comedere vel potare vel etiam expurgare; itaque nisi subveniatur
instanter, claudunt penitus arterias gutturis patientis, unde patiens cogitur projicere se in terram
intantum caput percutiendo ibidem, quod vix aut numquam erigitur; quae viviulae vulgariter
appellantur', *Jordanus Ruffus*, p. 31.

[101] Trolli, p. 29.

the throat caused by fluids in the horse's head freezing.[102] The *humores* are non-descript and often used in tandem with blood or *spiritus*. It is difficult to credit this etiology as four-humoral theory, given that Jordanus does not refer to black or yellow bile. He discussed blood, rheum, *spiritus* and *humores;* with *humores* being represented exclusively in plural so probably implying 'fluids', rather than the more specific notion of the vital humours. Later *hippiatric* writers often developed Ruffus's discussion of equine complexion as a medical paradigm. For instance, Moses of Palermo's translation of the horse-medicine attributed to Ipocras, which states:

> ...the natures of beasts are not caused by one quality. The complexion
> of a horse is warm and therefore it suffers more greatly from cold than
> from warmth. The complexion of a mule is a balance of warm and
> cold and therefore it suffers more from cold than warmth. And the
> complexion of the horse and of the mule is dry.[103]

Jordanus was particularly interested in the external influencers of health: food and drink, rest and labour, season, and climate; all with the onus on human carers to properly regulate these factors. A medieval audience would recognise these as part of the non-naturals, the external determiners of health and illness. These were part of the Arabic tradition of Hippocratic-Galenic Medicine, which was transmitted to Latin writers during the twelfth-century.[104] Again, because Jordanus did not cite authorities, it is difficult to

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[102] 'sunt et aliae aliquae glandulae circa caput equi cuiuslibet exsistentes, quarum aliquae sub gutture equi jacent, quae inflantur vel accidentaliter augmentantur propter humores capitis equi frigidati. Ad dictas glandulas de capite descendentes, ex grossione vel inflatione quarum totum guttur inflatur, et ita constringunt meatus gutturis', *Jordanus Ruffus*, p. 30.

[103] 'quia nature bestiarum non sunt ex una qualitate. Complexio equi calida est, et ideo suffert magis frigus quam calidum. Complexio vero muli est temperati caloris et frigoris, et ido suffert [magis] frigus quam calidum. Et equi et muli complexio eorum est sicca', *Trattati di mascalcia attribuiti ad Ippocrate*, ed. by Luigi Barbieri and Pietro Delprato, trans. by Moisè de Palermo (Bologna: Presso G. Romagnoli, 1865). pp. 104-105.

[104] See, Luis García-Ballester, 'On the Origin of the "Six Non-Natural Things" in Galen', in *Galen and Galenism: Theory and Medical Practice from Antiquity to the European Renaissance*, ed. by Jon Arrizabalaga and others (Aldershot: Ashgate, 2002). Jordanus' regimen will be discussed further in Chapter 5 in 'Housing and bodily maintenance'.

establish the extent to which he was influenced by this doctrine. In his discussions of regimen, Jordanus centred practical observation, handling, and diligent care, over an abstract discussion of external influencers. Finally, Jordanus believed in the importance of climate and geography in influencing the strengths and attributes of developing horses. He described the best landscape for raising foals; rocky, craggy hill-country that would encourage the development of firm hooves and strong legs.[105] Later *hippiatric* writers adapted these ideas to refer to the particular merits of horses from a number of different countries, notably the late Middle English *Boke of Marchalsi,* and the *Proprytees & Medicynes of Hors* printed by Wynkyn de Worde in 1497.[106] This tradition identifies the best horse for a given role according to its country of origin: 'þer ben gode coursours in Calabre and in Aragoune'. A common piece of horse-dealing lore from the late fifteenth century advised that there was 'no courser un to Poile...nor no renner unto Calaber'.[107] Chaucer referred to a brass horse in the Squire's Tale as 'so horsly, and so quyk of [e]ye, as it a gentil Poilleys [Apulian] courser were'.[108] Duarte I, of Portugal (reigned from 1433-1438), in his treatise on horsemanship, also noted the peculiar dexterity of Sicilian horses.[109] The peculiar fame of horses from Southern Italy might well have stemmed from the legacy of Jordanus and the later *hippiatric* writers from the Kingdom of Sicily.

Th diagnostic approach used by Jordanus and the later *hippiatric* writers was based largely on observation of the horse. He identified external symptoms such as lameness,

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[105] *Jordanus Ruffus*, pp. 2-4.

[106] Margaret Lane Ford, 'A New Addition to the Corpus of English Incunabula: Wynkyn de Worde's Proprytees & Medicynes of Hors (c. 1497–98)', *The Library*, 2 (2001), 3–9; David Scott-Macnab, 'Three Discontinuous Fragments of The Boke of Marchalsi in a Private Collection', *Notes and Queries*, 2015.

[107] Renner likely refers to a racing or running horse. Categorisations of horses are somewhat ambiguous and should only be thought of as demonstrative. Rachel Hands, 'Horse-Dealing Lore, or a Fifteenth-Century "Help to Discourse"?', *Medium Aevum*, 41 (1972), 230–39 (p. 238). Note that Hands' reading of 'Poile' as Poland is probably wrong.

[108] A courser was a charger or warhorse. Bengt Odenstedt, *The Boke of Marchalsi: A 15th Century Treatise on Horse-Breeding and Veterinary Medicine: Edited from MS. Harley 6398* (Stockholm: Stockholm University, 1973), pp. 18–19. Squire's Tale, ll. 190-195

[109] Duarte and Jeffrey L Forgeng, *The Book of Horsemanship* (Woodbridge: Boydell, 2016).

swellings and inflammation, or laboured breathing. He also linked internal and external features of illness with how the disease would present itself in the behaviour and appearance of the patient. For instance, swelling of the guts caused by an excess of blood ('dolore ex superflue sanguine') might cause the horse to fling itself to the ground. Jordanus described a form of differential diagnosis, in which similar ailments were separated by their particular symptoms. He identified four types of the aforesaid *dolor*, each characterised by swellings and twisting of the intestines, but with different root causes and symptoms. *Dolor* caused by excessive eating would swell and inflame the horse's abdomen, stomach, and intestines; causing great pain such that the horse could barely stand and would regularly lie on the ground in pain. When the affliction was caused by air entering the horse's abdomen through its pores due to it becoming excessively hot and sweaty the outward symptoms are the horse will suffer greatly.[110] When linked to retention of urine *dolor* causes inflammation of the area around the horse's penis. In each instance, Jordanus identified the root causes, which were usually linked to mismanagement of the horses, the internal mechanism of the illness, and the outward symptoms. Diagnosis relied on keen and diligent observation, often with valences of responsible care. Albertus Magnus described his horse-medicine text (which was likely a close contemporary of Jordanus' treatise) as a collection of the infirmities that a marshal must be acquainted with in order to heal horses.[111] Theodoric of Cervia said that the animals under the care of a lord's deputy or shepherd ought to be loved, because we always wish to keep safe from harm that which we love. He goes on to say that domesticated animals should be kept in stables or in pasture and undomesticated animals should be kept in wide woodland glades, so that they can both be inspected daily, or more frequently, to check for the signs of illness. A complex language aided this diagnostic

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[110] Jordanus and the other *hippiatric* writers were very sensitive to horse's pain and used it as diagnostic tool. See the section on 'Pain, Care and Behavioural Control' in Chapter 6.

[111] 'Est autem hoc animal cui plurimae accidunt infirmitates quas oportet marescalcum cognoscere, qui curare habet equos.', *Albertus Magnus*, p. 1379. For Albertus' horse-medicine treatise I favour Stadler's edition over the more recent two-volume translation by Kitchell and Resnick, because of the flattening of technical language and misinterpretations in the translated text.

process to describe pain, swelling, growths, and other symptoms, much of which was established in the *hippiatric* tradition by Jordanus.

Because of its importance to the culture of horse-care and the development of veterinary medicine in Europe, scholars have long debated Jordanus's sources and intellectual influences. These efforts have so far been fractious and largely unsuccessful. Klaus-Dietrich Fischer's argued in 1999 that the lack of obvious loanwords from either Greek or Arabic discounted these as potential sources.[112] Domizia Trolli, rather than looking at terminology or even remedies, talks about the focus on external rather than internal medicine, this separates Jordanus from the Byzantine tradition and brings him closer to the Arabic.[113] She also cited Jordanus' interest in *hippology* (general horse-care, training etc) as a potential connection with Arabic horse-care texts. *Hippology* is a developed and self-contained textual discipline in Arabic treatises.[114] Because the connection between *hippology* and *hippiatric* medicine is one of Jordanus' defining features, Trolli argues that it suggests knowledge of Arabic horse-medicine. Many of the influential pathways that scholars have considered (Arabic, Byzantine, and Roman texts) could be more fruitfully discussed if they are applied to the *hippiatric* tradition as a whole, to demonstrate how these different intellectual sources were incorporated into occidental horse-care texts.[115] For example, we know that Moses of Palermo's translation of the treatise attributed to *Ipocras Indicus* was drawn from an Arabic text. It shares material with the treatise of *ibn Al-Awaam* (12th c.), and it used technical language derived from Arabic.[116]. Moses of Palermo's translation included a list of 'bad vices' – ugly or

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[112] Fischer, '"A Horse! A Horse! My Kingdom for a Horse!" Versions of Greek Horse Medicine in Medieval Italy'.

[113] Trolli, p. 22.

[114] Alkhateeb Shehada, p. 192.

[115] Gaulin, pp. 189–90.

[116] An illness called 'raboa', a herb called 'zaafaf' and the Arabic words 'frlem', 'aauli', and 'zadoa' for one, two, and three-year-old foals. *Liber Ipocratis*, pp. 104, 121, 143.

undesirable features – several of which he named in Arabic. Theodoric of Cervia incorporated these vices into his *Mulomedicina*, though with the Arabic terms removed.[117]

It is also quite possible that Jordanus was influenced by his relationship with Frederick II and the milieu of the Sicilian court. Jean-Louis Gaulin argued that Jordanus' Latin suggests that his work was original, rather than having a particular derivation. *De medicina equorum* uses a technical lexicon more comfortably associated with Norman and German than Greek or Latin, for instance the illness that Jordanus named 'cimoira'.[118] Frederick perceived himself as an educated and cultured emperor, the *stupor mundi* – wonder of the world. Frederick's court was scientifically vibrant; he encouraged the translation and development of works of philosophy, mathematics, medicine, and veterinary science.[119] When Michael Scot was brought over to Italy from Spain by the Emperor to act as his astrologer and, amongst other things, translate Arabic scientific texts into Latin, he bought with him his translation of Aristotle's *De animalibus* and Avicenna's compendium on the same topic. Teodoro of Antioch, who replaced Michael Scot in Frederick's court when he died in 1232, wrote a regimen for the emperor and translated from Arabic into Latin a version of *De scientia venandi per aves* by Moamyn (9th century).[120] Moamyn's text may have provided the model for Frederick's own falconry work, *De arte venandi cum avibus*, as well as providing the model for the lost falconry treatise

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[117] 'Quando equi aures pendent versus oculos, ille vocatur in lingua arabica cheuchus...Equus, cui invenies sub una lacernarum...hoc vitium in lingua arabica vocatur farabtum' *Liber Ipocratis*, pp. 146-158; *Theodoric of Cervia*, I, pp. 32-34.

[118] Gaulin, p. 190; M.G. Arcamone, '"Camorra Non è 'Cosa Nostra'!"', *Filologia Germanica*, 27 (1984), 107–33.

[119] For a measured interpretation of Frederick's cultural reputation see David Abulafia, *Frederick II: A Medieval Emperor* (London: Pimlico, 2002), pp. 251–89.

[120] For a discussion of the transmission of Moamyn's text see Sara Marruncheddu, 'La traduction française du Moamin dans ses rapports avec la version latine de Théodore d'Antioche', in *Science translated: Latin and vernacular translations of scientific treatises in medieval Europe*, ed. by Michèle Goyens, Pieter de Leemans, and An Smets (Leuven, Belgium: Leuven University Press, 2008), pp. 297–310. In particular, footnote 12 deals with the discussion of Moamyn's identity, disputing Francois Viré's claim that Moamyn can be associated with Hunayn ibn Ishaq.

prepared by Roger II of Sicily's (d. 1154) royal falconer.[121] Frederick's treatise presented zoological observations of raptors in the wild as well practical advice on catching, taming, and training birds of prey. Its focus on the maintenance of a potentially wild creature in various states of domestication correlates in many ways with Jordanus' treatise.[122] Yet it would be unwise to apply too great a level of influence on Jordanus to Frederick and his scientific writing. The emperor believed strongly in the importance of personal experience and observation, like Jordanus, but he also valued the writing of Hippocrates, Pliny, and (above all) Aristotle. When explaining why female birds are larger than males, Frederick refers to both the *auctoritates* and his own observation: 'we have read in many books of philosophy...and we have seen this through signs'.[123] Jordanus' text shows no indication of textual borrowings that we might attribute to either Frederick or the scientific context of his court. However, it seems likely that the impetus to write a treatise on noble animals, founded on vigorously personal observation, and with a fundamentally practical intent must have been rooted in the environment the Emperor created.

At this point we cannot make any legitimate claims to have established either signs of direct borrowing within *de medicina equorum* or clear foundations in other traditions Jordanus' focus on personal experience, his disinterest in *auctoritates*, and his lack of Arabic or Greek loan-words mean that if any foundations are present they are very difficult to discern. Perhaps with more work on the Arabic tradition similarities will become clear.[124] However, the broader *hippiatric* tradition involved a network of intertextual and inter-genre connections, both direct and indirect. It also involved qualitative discussions of the intellectual position of marshals and *hippiatric* texts. Theodoric states that animal medicine is as noble and important as human medicine. Dino Dini referenced Aristotle, Vegetius, Hippocrates, Jordanus etc. and felt that marshalcy was poorly regarded as a profession because of the focus on personal experience and the lack of education and study. Chapter

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[121] Trolli, p. 21; Abulafia, pp. 261, 267.

[122] See for instance, the section on 'transporting a falcon that is not yet tamed', *ACVA*, p. 154.

[123] *ACVA*, pp. 72-73.

[124] Alkhateeb Shehada. is one of the very few recent studies of Islamicate animal-care, and unfortunately comparative analyses of Arabic and Latin horse-medicine texts are essentially non-existent.

2 will plot these relationships as well as highlighting the interaction between *hippiatric* texts and their audiences, to demonstrate how Jordanus' textual legacy spawned a tradition that adapted to the expectations of horse-carers and veterinary practitioners.

The *hippiatric* horse

To understand the development of the *hippiatric* tradition it is necessary to consider the cultural implications of its subject: the noble horse. The horse was both a socially important creature and a multivalent signifier, this was reflected in the way that it was understood and cared for. The final part of this chapter will look at the cultural influencers that shaped the developing *hippiatric* tradition, thinking particularly about the construction of the elite, chivalric horse by literary, historical, and didactic texts. The primary focus of the Jordanus-group of *hippiatric* texts was the elite horse. The bodily and behavioural expectations placed on such horses related to the potency of the horse as a part of the chivalric milieu of their noble owners. These multivalent expectations, which spoke to ideas of authority, gender, and masculinity, are visible in later medieval chivalric manuals, narrative accounts of war and noble endeavour, and romantic literature. They also heavily influenced both Jordanus' treatise and the later development of the western *hippiatric* tradition. Focussing on the development of the chivalric horse also allows us to circle back round to Jordanus' own developmental context, in which scientific writing and an interest in natural science went hand in hand with military action. Frederick II's passion for science and animals cohabited quite naturally with his military reputation and almost everything we know about Jordanus places him in a martial context, in keeping with his Norman heritage. Placing veterinary treatises into this broader cultural setting provides the context for later chapters on horse-care practitioners and the horse as a non-human patient.

The *hippiatric* tradition stemming from Jordanus' treatise was influenced not only by external intellectual factors but also by the culture and cultural expectations relating to noble horses. Horses and other equids were used widely in the Middle Ages and at almost every social level; for traction, transport, and industry, but Jordanus was principally interested in the noble horse – the *equus generosus*. Jordanus devoted his treatise to Frederick II and to the chivalric aristocracy, who 'delight in proving the greater nobility

of their souls through military honour and war'.[125] Jordanus had spent his life caring for noble horses, and it was these horses for whom his treatise was intended. Other marshals would have looked to Vegetius or Theodoric whose treatises were intended to care for horses which provided 'assistance in war and ornament in peace'.[126] Such noble horses were (as will be demonstrated in Chapter 5) not just bred or bought but physically adapted, behaviourally conditioned and socially constructed according to a complex set of cultural expectations that linked horse to rider and placed both within a social hierarchy which separated the wild beast from the honourable and civilised. The *hippiatric* ideal of the noble horse was founded in Isidorean and Aristotelian natural philosophy, transmitted by thirteenth century scholastics and filtered through the ideals and motifs of chivalric culture.

Horses were separated principally according to domestication and occupation. In his commentary on Aristotle's *De animalibus*, Avicenna referred to two types of horse which Michael Scot rendered into Latin as *equus aschehami* and *equus almorchetici*. Albertus Magnus glossed the former as *equus equatiari* – wild horses horse which are gathered in herds in their pastures, the latter as 'those that are fed and tamed in the home'.[127] Isidore of Seville distinguished between well-bred horses and common, ordinary animals. He also described the *equiferus*, the wild horse, dun or ashen in colour and unsuited to urban use.[128] The distinction between rustic and urban use is drawn from classical agronomists such as Palladius and speaks as much to the metaphorical polis as the actual landscape. The rustic horse is crude, ignoble, and anathema to the *hippiatric* horse. Following Isidore, Albertus also separated horses into those which are caught in the forests ('silvestribus') and those which are broken ('domiti'). Michael Scot categorised not just wild and domesticated animals, but a state somewhere between the two (*mediocra inter utraque*). He further described the ways in which animals came to a domesticated state. Some animals

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[125] *Jordanus Ruffus*, p. 1.

[126] *Vegetius*, p. 12; *Theodoric*, I, p. 1.

[127] Avicenna, *De Animalibus*, f. 14ᵛ; Albertus Magnus, *On Animals: A Medieval Summa Zoologica*, trans. by Kenneth F Kitchell and Irven Michael Resnick, 2 vols (Baltimore: Johns Hopkins University Press, 1999), I, pp. 636–37, n. 277.

[128] Isidore of Seville, *The Etymologies of Isidore of Seville*, trans. by Stephen A Barney and others (Cambridge: Cambridge University Press, 2008), p. 249.

were born domesticated: like humans, dogs and sheep, others born wild: e.g. chickens, rabbits, and crabs, or born in the liminal state between the two: horse-foals, goats, etc. Some animals were grouped by their ability to learn good behaviour (*boni mores*), i.e. to be trained. Humans, dogs, and monkeys learn quickly; horses and oxen slowly, whilst serpents, frogs and flies cannot be trained.[129] Domestication could also occur through breeding. Avicenna described the *leporarius* (greyhound) as the result of breeding dogs and foxes, and the *canes indie* bred from dogs and wolves. He advised that the latter were not domesticated ('non mansuescunt') until the third generation.[130] Albertus Magnus' description of horses 'caught in the forest' presents another possible avenue by which humans engaged with 'wild' animals, but these animals need not have been thought of as domesticated. Domestication and wildness were described as a set of inherently fluid and ambiguous states. Some animals were born into service and submission - were born tame - others learned and were domesticated or were bred for domesticity. The *dial. scacc* describes horses of two types: 'those which are fit for use and those which are wild'.[131] Wildness is defined here in terms of utility, though in this instance 'fit for use' likely refers to the more noble uses, i.e. warfare and riding. Horses described as wild were still exploited very widely. Hundreds of *equae silvestres*, *silvaticae* and *indomitae* were recorded in the Domesday Book, though it is difficult to say how these qualifiers differ from each other.[132] *Silvestres* and *silvaticaes* suggest extraction from a literal (or metaphorical) wild- or woodland, matching Albertus Magnus' description of horses 'taken from the woods', as opposed to broken horses ('domitos equos').[133]

Albertus Magnus separated broken horses into 'war horses – which are called destriers – palfreys, racing horses and rouncies'. William Fitzstephen's description of the

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[129] Michael Scot, *Physiognomiae*, ch. 20

[130] Avicenna, *De Animalibus*, f. 14ᵛ

[131] 'equorum utrumque genus, usuales et indomiti', Richard Fitznigel and Nigel Bishop of Ely, *Dialogus de Scaccario: The Dialogue of the Exchequer*, ed. by Emilie Amt and S. D. Church (Oxford: Oxford University Press, 2007), p. 14a.

[132] Gladitz, pp. 144, 173. Gladitz suggested two stages in the process of re-domestication of feral stock but I am no better equipped than he was to verify that theory. It does not, as far as I can tell, match the divergent use of these terms elsewhere, insofar as they do diverge.

[133] *Albertus Magnus*, pp. 1377-1378.

twelfth century horse-market at Smithfield in London broadly followed these categories. He recalled first seeing the *gradarios*; high-status walking horses with firm, well-fed flesh and flowing hair who ambled smoothly; and the riding horses more appropriate for a man of arms, whose gaits were more rapid and therefore less comfortable.[134] He spoke also of noble foals, packhorses with strong and lively limbs, and finally destriers: expensive war horses with elegant bodies and upright stature; their ears trembling, necks high, and their haunches stout.[135] The warhorse was, theoretically at least, the focus of the *hippiatric* treatise. Laurentius Rusius described it as 'the most singularly beautiful of animals in nobility and form... [through which] the greater glory of princes is effected, the hearts of kings grow, battle-lines are built, and enemies overcome'.[136] The noble horse was a powerful tool by which the expectations and identity of medieval elites could be expressed.[137] It was separated from the uncivilised rabble of work, farm, and packhorses and elevated to a position that mirrored that of its rider.[138] The noble horse was constructed as an elite animal that shared in the bellicosity, the fraternity, and nobility of its rider. According to Isidore of Seville (560 – 636) whose *Etymologies* were highly influential in later medieval scholasticism, the horse sought out war and 'was roused to battle by the sound of the trumpet...grieving when they are defeated, and exultant when they are victorious'.[139] Thirteenth-century bestiaries provided ancient exemplars of the ideal horse, most copied from Pliny's *Natural History.* A horse should be loyal to its master like Alexander the Great's Bucephalus, who bore Alexander unharmed 'through the bloodiest battles' but would allow nobody except its lord to ride it. It should be aggressive

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[134] An amble is a two-beat gait in which the parallel fore and rear feet are raised and lowered together, giving a smooth and more comfortable ride. This process required intensive behavioural conditioning involving a hobbling device called a *traynell*.

[135] *Munimenta Gildhallæ Londoniensis: Liber Albus ; Liber Custumarum ; et Liber Horn*, ed. by Henry T. Riley (London: Longman, Brown, Green, Longmans and Roberts, 1859), pp. 7–8.

[136] *Laurentius Rusius*, p. 2.

[137] Jeffrey Jerome Cohen. pp. 35-77.

[138] A less anthropocentric approach prompted by the animal-turn has led some scholars to argue that the identities of knights and chivalric animals went through a process of co-evolution. Sciancalepore, 'Hawks and Knights', p. 120.

[139] Isidore of Seville, p. 249.

and defend its master, even after their death like the horse of the Scythian king, who attacked his master's killer 'kicking and biting him'.[140]

The horse was also a key part of the knight's chivalric milieu; it functioned both as theriomorphic symbol and specialised accoutrement. The dyad of knight and horse was both a technological or prosthetic extension of human capability and an intermingling of two consciousnesses, of two bodies.[141] The Catalan *cavaller* and theologian Ramon Llull (1232 – 1316) called the horse the finest, swiftest, and noblest of beasts, the one created by God to suit the knight 'who was chosen from one thousand men'. The horse like the knight is identified by its precocity, its nobility of birth and purpose.[142] Riding the wrong horse could be deeply shameful: in Chrétien de Troyes' Perceval, Gawain's horse is stolen, and he is forced to ride a rouncey: 'an ugly beast, with a scrawny neck and a fat head and long, limp ears, and all the imperfections of age'. All the while he is being followed by a 'wicked girl' who chides him: 'if only the nag you've taken from the squire had been a mare! I wish it were, I really do – then your disgrace would be greater still!'. The only thing more shameful for Gawain than riding a common horse would be to ride a mare.[143] The wrong horse could form part of a military defeat or a default of honour, such as when William des Barres, who had been captured and paroled by Henry II in 1188, then fled on a 'boy's rouncey'.[144] In a ballad of the battle of Neville's Cross (1346), David II of Scotland is shot in the nose through his helmet with

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[140] Richard W Barber, *Bestiary: Being an English Version of the Bodleian Library, Oxford, M.S. Bodley 764, with All the Original Miniatures Reproduced in Facsimile* (Woodbridge: Boydell, 1993), pp. 102–3.

[141] On the horse as cyborg, see Crane, 'Chivalry and the Pre/Postmodern', p. 70.

[142] Ramon Llull, *The Book of the Order of Chivalry*, trans. by Noel Fallows (Woodbridge, Suffolk: Boydell Press, 2013), p. 40.

[143] *The Complete Story of the Grail: Chrétien de Troyes' Perceval and Its Continuations*, trans. by Nigel Bryant (Cambridge: D.S. Brewer, 2015), pp. 61–62.

[144] *Gesta Regis Henrici Secundi Benedicti Abbatis: The Chronicle of the Reigns of Henry II. and Richard I. A.D. 1169-1192; Known Commonly under the Name of Benedict of Peterborough*, ed. by William Stubbs (London: Longmans, Green, Reader, and Dyer, 1867), II, p. 46. In the Song of Roland, the traitor Ganelon is shamed by being put on a pack horse Frederick Goldin, *The Song of Roland* (New York: Norton, 1978), v. 137.

an arrow and dismounts from his 'steede'.[145] A 'poor yeoman' named John of Copeland fights with the king, bears him to the ground and forces him to yield. John then places the king on a palfrey and himself upon a 'steede' and leads David to where Edward III berates him: 'how like you my shepherds and my millers, my priests with shaven crowns?'.

When he was shot and forced to dismount, David was reduced to the level of a peasant: as Jordanus argued it is by noble horses that princes, barons, and knights are separated from the rabble.[146] He is then further dishonoured by being forced to yield to a yeoman, much to his disgust: 'how can I yield to you when you are no gentleman?'. David's shaming is then completed when he is forced to ride a palfrey and be led like a child by the poor yeoman who takes a 'steede' for good measure. The horses in the ballad act as social indicators, as David is led to London to meet Edward his status as a traitorous vassal is reinforced by his improper steed. His parade of infamy was enhanced by the inverted image of a well-mounted squire leading the king by the reins, a defamiliarisation of the correct situation, in which the squire on foot leads the noble horse or destrier.[147] Shaming rituals often used horse to render dishonoured knights absurd and socially outré; their spurs were violently hacked from their heels or they might have their arms hung reversed from the tail of their accuser's horse. Knights were sometimes ritually humiliated by being stripped of their armour and forced to sit astride a wooden horse before being beaten.[148] This created a deviated or perverse version of the knight's proper situation,

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[145] In this context a warhorse.

[146] *Jordanus Ruffus*, p. 1. The next line 'et quia nisi ipso mediante dominus inter privatos et alios decenter discerni non posset' was mistranslated by Ralph Davis as 'a lord cannot fittingly be seen among private citizens except through the mediation of a horse'. This misinterpretation has been incorporated into Anglophone scholarship, giving the sense of lords travelling amongst lesser folk on horseback, rather than being distinguished from them by their horses. R. H. C. Davis, *The Medieval Warhorse: Origin, Development and Redevelopment* (London: Thames and Hudson, 1989), pp. 107–8; Crane, 'Chivalry and the Pre/Postmodern', p. 72.

[147] *Bishop Percy's Folio Manuscript: Ballads and Romances*, ed. by John W. Hales and Frederick J. Furnivall, 2 vols (London: N. Trübner and co., 1868), II, pp. 196–200.

[148] Andrew G Miller, '"Tails" of Masculinity: Knights, Clerics, and the Mutilation of Horses in Medieval England', *Speculum*, 88 (2013), 958–95 (p. 981 n. 109). A form of this punishment was ordered by René d'Anjou in his 1460 treatise on the organisation of a tournament Paris, BNF,

ridiculing them through their steed in a manner that was easily and universally understood by their peers.[149] As the following chapters will demonstrate, the *hippiatric* tradition reflected the expectations of a chivalric aristocracy that placed a high level of social capital on horses whose nobility could be read and understood through their appearance and behaviour.

Conclusion

This chapter has presented some of the historical, intellectual, and cultural contexts from which *de medicina equorum* and the broader *hippiatric* tradition emerged. The culture of didactic horse-medicine in later-medieval Europe was scientifically engaged, intent on connecting Jordanus' treatise with ancient authorities in both veterinary medicine and natural philosophy. It was part of a precocious southern Italian culture that produced an exceptional array of both original and translated horse-medicine treatises. This culture was part of Frederick II's legacy, a response to his interests in natural philosophy and the natural world. It was borne out by several of his successors to the Kingdom of Sicily who in the case of Manfred and Charles of Anjou, provided their own gifted translators and book-creators. Focussing solely on Jordanus and his treatise obscures a substantial proportion of this *hippiatric* culture and has inhibited the study of horse-medicine as both an intellectual endeavour and a vital social practice. As the following chapters will demonstrate, the *hippiatric* tradition co-evolved with the culture of later-medieval horse-medicine, which were both responding to the shifting needs and expectations of horse owners at a time when horses were becoming ever more important. The corpus of *hippiatric* texts is both a testament to the popularity of the tradition and something of an impediment to its close study. However, it is through analysis of the development, reception, and use of both the *hippiatric* tradition and other independant horse-medicine texts that we can gain a sense of the expectations of horse-carers and the place of horse-medicine within the broader landscape of medieval healthcare.

MS Français 2695 ff. 70ʳ-74ᵛ. The physical body of the horse was also understood and used as an analogue for the body of its owner, such as when Robert de Broc cut off the tail of one of Thomas Becket's mares on Christmas Eve 1170 Miller, p. 958.

[149] Maurice Keen, *Chivalry* (New Haven: Yale University Press, 2005), p. 175.

Chapter. 2 The *hippiatric* tradition: texts, development, and reception

Introduction

Jordanus Ruffus' *de medicina equorum* had a marked impact on the development of horse-medicine. His treatise was copied, translated, and distributed widely and with great impact; the extent of this dissemination has only recently become clear with the publication of Antonio Montinaro's 2015 survey of Jordanus Ruffus manuscripts. We do not - at this point - know the full extent of the *hippiatric* genre, as Montinaro's survey set a precedent which has not yet been followed by studies of other texts.[150] His list is comprehensive and includes a detailed summary of texts mentioned in earlier studies that have now been lost. However, the absence of any other such study or of a holistic study of the genre, speaks to the extent to which Jordanus' text has been privileged within the study of *hippiatric* medicine, often to the detriment of other treatises.[151] This chapter demonstrates how Jordanus' textual legacy was received and adapted over time to form the broader *hippiatric* tradition. More broadly, *hippiatric* scholarship has so far focussed on vernacular translations of Jordanus' treatise and relied largely on an outdated edition of the original Latin text. There has been no significant effort towards a critical edition in any language or a holistic analysis of the manuscript corpus.[152] Relationships between manuscripts have only been lightly studied and without rigorous analysis. Codicological variations, emendations, and marks of use have been entirely ignored. Perhaps more problematically, little attention has been paid to the other *hippiatric* texts, meaning that we

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[150] His list of 173 manuscripts and 16 early printed editions, supplants earlier surveys by Yvonne Poulle-Drieux and Domizia Trolli. Montinaro, *La tradizione del De medicina equorum di Giordano Ruffo*; Poulle-Drieux, 'L'hippiatrie Dans l'Occident Latin Du XIIIe Au XVe Siècles', pp. 17–21; Trolli, pp. 171–72.

[151] Brunori Cianti compiled a list of Italian *hippiatric* manuscripts in 1995 ranging from the tenth to the eighteenth centuries, but it has some serious faults and needs updating. Lia Brunori Cianti, 'Primo contributo per un censimento dei manoscritti di mascalcia conservati nelle biblioteche Italiane', in *Atti il convegno nazionale di storia della medicina veterinaria*, ed. by Alba Veggetti (Brescia: Tipografia Camuna, 2011), pp. 171–81.

[152] Bertelli; Benedetti.

have not yet mapped the development of the genre.[153] This has inhibited efforts to consider the reception of the *hippiatric* tradition, and therefore the practice of veterinary medicine. Isolating Jordanus mirrors the 'great-man / great-doctor' methodology of medical history.[154]

This chapter is intended as an examination of the development of the broader *hippiatric* genre. It posits that the Jordanus text formed the spine of a complex, dynamic, and fluid tradition, which needs to be addressed as a whole to draw significant conclusions about veterinary care and animal science. It will reassess the Latin Jordanus corpus, identifying some issues with using the Molin edition as the principal representative of the Latin tradition. It will demonstrate some of the peculiarities and variations within the Latin tradition. It will make efforts to map the intellectual development of the *hippiatric* genre, beginning by dealing with the thorny issue of Jordanus' scientific influences. It will also offer some additional resolution to the 'map' of the *hippiatric* tradition, by demonstrating where material was incorporated into the corpus, often as a result of concerted scientific efforts in southern Italy. Finally, it will approach the questions of audience and practice by examining reception and marks of use. This will demonstrate the diverse iterations of horse-medicine which have, through a narrow and insulated study of the Jordanus text, so far been largely ignored.

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[153] Lisa Sannicandro and Martina Schwazenberger are preparing a critical edition of Theodoric of Cervia's mulomedicina, based on c. 15-17 manuscripts: Martina Schwarzenberger, 'Die Mulomedicina des Teodorico di Cervia. Neue Perspektiven mittels einer interdisziplinären Annäherung', *Pallas. Revue d'études antiques*, 2016, 323–36; Schwarzenberger previously analysed the treatise of Magister Maurus, placing it chronologically between Theodoric of Cervia and Laurentius Rusius: Martina Hurler, 'Magister Maurus: Transkription, Übersetzung und veterinärmedizinisch-historische Bedeutung des Manuskriptes aus dem Codex Harleian 3772 der British Library' (Königshausen & Neumann, 2007); Ortoleva considered Theodoric as part of the medieval reception of Vegetius 'Per uno studio della tradizione indiretta della Mulomedicina di Vegezio: gli excerpta di Teoderico da Cervia', *Sileno*, 18 (1992), 115–31.

[154] For an attempted rehistoricising of this trope, see Barron H. Lerner, 'The Fielding H. Garrison Lecture: Great Doctor History', *Bulletin of the History of Medicine*, 92.1 (2018), 55–77.

Translation, philology, editions

De medicina equorum is extant in at least 173 manuscripts, it was translated into eight languages; notably into Italian in Bologna in 1290, Sicilian in the first quarter of the fourteenth century and French around 1350. It was printed several times, notably in Venice in 1492 and again in 1561. [155] This large corpus presents a significant challenge to Ruffus scholarship and so far, textual criticism has been insufficiently rigorous and overly focussed on narrow philological studies. Yvonne Poulle-Drieux stated in 2009 that there were 47 manuscripts in vernacular languages, including two in Sicilian and four in French.[156] This significant understatement – Antonio Montinaro puts the figure closer to 115 – should be taken as indicative of the early and delicate state of Ruffus textual analysis. Several editions have been based around dubious or at best poorly justified collations. Brigitte Prévot is limited to the six Old French witnesses, making her initial corpus decisions relatively straightforward.[157] When dealing with a larger corpus, Latin or Italian for instance, editorial decisions become less rational. The collation for the best available Italian edition, by Yvonne Olrog Hedvall, is only loosely justified and arguably unsound.[158] The need for a better understanding of intertextual relationships has been indicated by Bertelli, amongst others.[159] Klaus-Dietrich Fischer argued that the sheer number of manuscripts was putting off potential editors, a problem which has only worsened since Montinaro increased our estimation of the Jordanus corpus, first to 160 in 2010 and then to 173 in 2015.[160]

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[155] It was also translated into French, Catalan, Galician, Occitan, Sicilian, German and Hebrew, see Antonio Montinaro, 'Per La Tradizione Del De Medicina Equorum de Giordano Ruffo (Con Un Elenco Dei Testimoni Manoscritti)', *Medioevo Lettarario d'Italia*, 7 (2010), 29–64 (pp. 56-58)

[156] Yvonne Poulle-Drieux, 'Savoir Soigner Les Chevaux Dans l'Occident Latin, de La Fin de l'Antiquité à La Renaissance', *Schedae*, 19 (2009), 143–52 (p. 147).

[157] Prévot.

[158] Ruffo and Olrog Hedvall, pp. 28–29.

[159] Bertelli, p. 410.

[160] Fischer, '"A Horse! A Horse! My Kingdom for a Horse!" Versions of Greek Horse Medicine in Medieval Italy', p. 131.

The Latin text of Jordanus has largely been largely in the last two centuries. Where it is necessary – i.e. to discuss vernacularisation – scholars and editors have relied entirely on the 1818 Molin edition as a comparator. For instance, Benedetti's article on two Franco-Italian fragments from the Udine archive presents a lexicographical analysis, draws conclusions about lexical shift and code-switching, compares the Udine fragments to several French and Italian texts, including the earliest known translation of Ruffus into Italian (Berlin Kupferstichkabinett MS 78 C 15). Benedetti used the Molin edition as a Latin comparator, recognising that we lack a Latin critical edition.[161] Fichera's edition of two fourteenth century Sicilian *mascalcia* treatises that borrowed heavily from Ruffus also used the Molin edition as its sole Latin comparator. Fichera described Molin's work as 'the edition of reference' with interest in the Jordanus text being largely focussed on the Italian-Romance language tradition.[162]

In the last thirty years several major vernacular editions have been prepared, often whose only Latin comparator or reference is the Molin text. These include Yvonne Olrog Hedvall's edition of Kupferstichkabinett MS 78 C 15, Brigit Prévot's critical edition of the French text, and Martina Hurler's comparison of Jordanus with the early fourteenth century horse-medicine of 'Magister Mauro'.[163] Antonio Montinaro's multi-language analysis of lexical incorporation across the Jordanus tradition uses the Molin edition as its only Latin comparator, describing it in a footnote as 'edited from a thirteenth century manuscript'.[164] Montinaro based his study of nine texts across six languages and dialects entirely on printed editions, but his use of the Latin edition is more problematic than the others because of Molin's largely silent editorial principles. Jean-Louis Gaulin called Molin's edition 'barely accessible, unequally reliable, and executed based on a single

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[161] Benedetti.

[162] Fichera, p. 31.

[163] Ruffo and Olrog Hedvall; Prévot; Hurler.

[164] Antonio Montinaro, 'L'indagine Lessicale Come Strumento Di Analisi Di Tradizio- Ni Testuali Romanze. Esemplificazioni Dal "Liber Marescalcie" Di Giordano Ruffo', in *Carte Romanzo*, ed. by Anna Cornagliotti, Alfonso D'Agostino, and Matteo Milani (Milan: Studio Fifield, 2016), pp. 93–120 (p. 95 n. 7).

manuscript'.[165] Sandro Bertelli called it an 'unreliable instrument', again noting that it is based on a single manuscript.[166]

Although it is somewhat clumsily rendered, Molin's edition is not actually a bad representation of the Latin Jordanus, though his silent amendments and renderings make it an unsuitable edition of the Marciana text. The common accusation that Molin based his edition on a single manuscript needs to be taken with caution as he claimed in his introduction to have discussed with Baron Giuseppe Vernazza 'all of the Latin codices of Ruffus that are preserved in the royal library of his native land'.[167] The only indications Molin gave for how he was using these manuscripts come from his annotations. For instance, in a remedy for urinary retention he gives the reading 'paulum *cocti* cum oleo calido', exchanging *croci* for *cocti* and noting that 'all manuscripts show *croci*'. Molin also noted that the 'ad impinguandum equum' section, inserted between chapters thirteen and fourteen of some but not all of the Latin texts, was present in the Marciana but was absent from 'Codice Farsetti Num. XVII and all of the other codices that I have checked'.[168] These few comments can at least give us some sense of the corpus that Molin used, and the editorial methods that he used. The Marciana text also has one minor defect, in that a large section of the text was absent and replaced in a second hand. Three lines into chapter 32, 'de lesionibus cruribus et ungularum', the text jumps to the middle of chapter 42, 'de extortilliatura seu stortiliatura'. This appears to be a copyist's error and a second, similar hand uses a cruciform symbol and a marginal note to direct the reader to the missing section, which has been placed after the treatise and postscript.[169] In line with what seems to have been his rationale, favouring readability over openness, Molin

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[165] Venice, Biblioteca Marciana, MS Lat. VII. 24, ff. 55-71. Jean-Louis Gaulin, 'Giordano Ruffo et l'art Vétérinaire', *Micrologus: Natura, Scienze e Società Medievali. Nature, Sciences and Medieval Societies*, 2 (1994), 185–98 (p. 185).

[166] Bertelli, p. 389.

[167] 'quocum colloquutus sum de latino Ruffi Codice, qui in regia suae patriae Bibliotheca asservatur', *Jordanus Ruffus*, pp. vi–vii.

[168] 'et in aliis etiam Codicibus a me perpensis', *Jordanus Ruffus*, p. 44

[169] Venice, Biblioteca Marciana, MS Lat. VII. 24, ff. 65, 70-71.

corrected this error in his edition, presenting the text without any reference to the scribal emendation. This silent editorial approach is the key problem with using Molin's edition.

Scholars have justified using Molin's 'unreliable' edition by referring to it as the only available Latin text and by arguing that it represents the Latin Jordanus in (one of) its thirteenth-century incorporations. However, no efforts have been made to assess or approach the problems that using Molin's text raise. This is partially because of the greater interest in the vernacularised Jordanus texts, but even they are largely predicated on the Latin original and therefore should require that we have a less 'unreliable instrument' with which to study them. Also, the translation of Jordanus (and the inclusion of his material in later *hippiatric* texts) took place over several hundred years and with access to a range of Latin Jordanus exemplars, so using an imprecisely edited original text to study development and vernacularisation is unwise. This issue is compounded by the undue focus placed on Jordanus within the study of the broader *hippiatric* genre. Treating Jordanus in isolation, ignoring the influence of other texts, led Tony Hunt and Brigit Prevot separately to identify Wellcome 546 as a Ruffus text, when it is more accurately described as an amalgamation of material from Ruffus and from the *practica equorum*. The latter can be identified by the tell-tale cluster of remedies for *lampastus*, *floncelles*, *barbelles*, and *malus lingua*.

The Latin Jordanus Tradition

The Latin text of *De medicina equorum* was usually organised into six principle chapters as follows:

1. De generatione and nativitate equi [On the generation and birth of a horse]

2. De captione et domatione eisdem [On the capture and breaking of the same]

3. De custodia et doctrina equi [On the housing and training of a horse]

4. De cognitione pulcritudinem corporis [On knowing the beauty of the body]

5. De egritudinibus naturaliter contingentibus [On naturally occuring sicknesses]

6. De accidentalibus infirmitatibus vel lesionibus equi [on the accidental infirmities and lesions of a horse]

Many of the Latin witnesses of *de medicina equorum* include the following colophon:

Hoc egit immensis studiis miles calabriensis, Qui bene cunctorum sciverat medicinas equorum, Discat quisque legens pati hec pagina presens, Quod vivat atque nocet sic equo cuncta docet[170]

They also often contain a short passage restating Jordanus' relationship with Frederick II, developing the association presented in the prologue. Neither of these are likely to be authorial as they both speak in the third person about Jordanus and speak of his text as a completed venture. The Latin Jordanus witnesses can be split into six principle groups:

1. Group one follows the chapter order as above, and include the following sections after chapter six:

De infirmitatibus naturalibus [On natural infirmities]

Incurabiles [Incurable illnesses]

De obliquis cruribus [On bent shanks]

De obliquis ungulis et cura earum [On bent hooves and their cure]

De infirmitate muri vel celsi, et cura [On the infirmity *murus* or *celsus* and its cure]

De ceteris glandulis et cura [On other swellings and their cure]

Regulae cognitionum omnium equorum [Rules for discerning the nature of all horses]

De cognitione claudicationum [On recognising lameness]

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[170] 'The knight of Calabria, who knew all the medicines of horses well, has created this text with immense devotion, in order that whoever is reading these present pages can learn that which heals as well as that which harms the horse, so that they can teach this to all.' Venice, Biblioteca Marciana, MS Lat. VII 24 f. 69ᵛ

De cognitione morborum [On recognising death][171]

2. This group follows the form of group one but include delicate illuminations.[172]

3. This group follows the form of group one but ends abruptly at chapter 6.55 'De ficus subtus solam pedis'.[173]

4. This group follows chapters 1-5 as group one, and then contains sections of chapter six, interspersed with chapters from the *practica equorum*. The earlier and later sections on naturally occuring illnesses are truncated or absent.[174]

5. In this group, chapter six is significantly different; it is arranged as a set of the symptoms of roughly 30 illnesses that are described contiguously. This is then followed by a separate list of remedies; this gives the impression of trying to create a common pathology or list of symptoms to watch out for.[175]

6. In the final group, the authorial identification from the proemium is missing and there is no reference to Jordanus. Chapter four on naturally occuring sicknesses is missing, as are several of the sections of chapter six and everything after chapter six.[176]

The first five chapters in *De medicina equorum* are commonly referred to as the *hippological* section; latin Jordanus manuscripts vary in terms of the ways in which they subdivide the *hippological* chapters. Molin separated 2. de captione et domatione into two sections, the principal section and a second section labelled 'ad domandum', following the Marciana text. These two sections are totally separate in Wellcome MS 7756 but are incorporated without break in Beinecke MS 1024. Molin separated chapter 3 'De custodia et doctrina equi' into four distinct sections:

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[171] Examples of group one include Venice, Biblioteca Marciana, MS Lat.VII 24 ff. 55-71ᵛ; Bologna, Biblioteca Universitaria, MS 2764 ff. 13-50; Bologna, Biblioteca Archiginnasio, MS A 1585; Vatican City, BAV, MS. Ott. Lat. 2771.

[172] Cambridge, Mass; Harvard University Houghton Library, MS Typ 415, ff. 91-107ᵛ.

[173] London, Wellcome Library, MS 7756.

[174] New Haven, Yale University Beinecke Library, MS 1024 ff. 53-65.

[175] Vatican City, BAV, MS Pal. Lat. 1327, ff. 84-119ᵛ

[176] Paris, BNF, MS Latin 1203 ff. 24-39ᵛ.

    I.   De custodia et doctrina,

    II.   ad ferrandum (of shoeing horses)

  III.   de doctrina equi,

  IV.   de forma freni

In doing this, he was following the Marciana text. Beinecke 1024 separates chapter 3 into two sections: I. *de custodia*, incorporating *ad ferrandum* and II. *de doctrina*. The second section separates *de forma freni* into two at 'utile tamen est ipsum per civitates paulatum sepius equitare'. This is a quite different reading, but it makes sense as Jordanus has stopped describing types of bridle and has returned to discipline and training. In Wellcome MS 7756 *de forma freni* is incorporated into de *doctrina equi* without break, which is a slightly clearer distinction than the Marciana text (and Molin) and helps to make Jordanus' argument: that the form and use of the bridle, the removal of teeth as a part of the horse's domestication, and the disciplinary procedures are all part of a structured training regimen.[177] Montinaro also described the various approaches to the subdivision of Jordanus' text, but as a comparison of the six principal modern editions in Latin, Italian, Sicilian, Neapolitan, French, and Galician. He did not compare Latin texts, nor account for the editorial methods of the editions he analysed. Not all of them were formed from a single manuscript, for instance Hedvall's Italian edition uses a collation of three witnesses to correct the primary Kupferstichkabinett MS 78 C 15. Montinaro made no effort to account for variations between the texts used by the editions he is collating and analysing, in terms of their structure or anything else, limiting the value of his conclusions. The study of the *hippiatric* tradition has relied unduly on printed editions eliding the differences between witnesses. These editions often omit postscript and marginal annotation. By focussing on a small number of texts (often one or two) the potential for studying such marks of use and reception is missed. These practices provide only a narrow view of the reception of *hippiatric* treatises and effectively sanitise the *hippiatric* tradition, scrubbing off peculiarities and leaving us with a cohesive and (regimented/clone) but much less interesting tradition to study.

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[177] New Haven, Yale University Beinecke Library, MS 1024, ff. 54ᵛ-55; London, Wellcome Library, MS 7756, ff. 3ᵛ-5; *cf. Jordanus Ruffus,* pp. 13-17.;

Variations, Reception, and Marks of use

The Jordanus text is perhaps less dynamic and subject to change than the broader *hippiatric* tradition. This is particularly true of the Latin text, which is remarkably static. The general outline and structure of the Latin Jordanus does not often vary significantly between surviving texts. The form of Jordanus' treatise, as outlined above is usually retained with little variation, though there are exceptions. This is less true of the vernacular translations, for instance there are several examples that only present the *hippiatric* section without the *hippological* material.[178] Because Jordanus' treatise presented a holistic schema incorporating maintenance and medicine, this is quite a significant change in the nature of the text. Later *hippiatric* compilations and commentaries often took excerpts from Jordanus' text as their basis, for instance the Orvietan-dialect *mascalcia* written by magister Iohanninus, the son of lord Cabrini de Abundia of Bologna in 1337.[179] A floridly decorated Italian Jordanus witness, produced in 1439 omitted his prologue and begins with the first chapter. It retains the explicit identifying Jordanus as the writer and conveying authority through the figure of Frederick II.[180] One Latin Jordanus witness totally reorders the *hippiatric* section, first describing the various illnesses then providing a list of remedies. The chapters describing the illnesses are each labelled 'de cognitione', becoming a set of symptoms, 'by which the infirmities and wounds of horses should be known and for which they should be diligently inspected'.[181] The copyist has changed the nature of this section from an encyclopedic list of illnesses and attending remedies to schema by which horses can be inspected.

Emendation and technical language

The study of *hippiatric* treatises has so far paid little attention to signs of use and has developed a very narrow understanding of the texts themselves, meaning that commonplace assertions about the genre often go unchallenged. Annotation and marks

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[178] London, Wellcome Library MS 702 and MS 705

[179] Florence BNC, MS N. A. 424, ff. 1v-149v

[180] London, Wellcome Library, MS 531; other mid-15th century Italian Jordanus texts lends authority by associating the writer with Alexander the Great (London, Wellcome Library, MS 788) and Charlemagne (Paris, BNF MS. Ital 454).

[181] Vatican, BAV, MS. Pal. Lat. 1327 f. 96v

of use gives a sense of how the texts are used; a lack of annotation, particularly on a very ornate or rich manuscript suggests a different use for the object than a heavily annotated and amended text. Frequently annotated sections give us a sense of the illnesses which particularly troubled marshals, or were particularly difficult, dangerous, or onerous to treat. Copyists often offered alternative readings in an effort to clarify the text for their specific readership. For instance, one of the remedies offered for 'dolore ex retentione urine' in the Wellcome manuscript has been modified by a second hand. Part of the original list of ingredients has been scraped and replaced with 'accipiantur cressoni cretani malvini. paritaria....' Other Jordanus manuscripts suggest that this text originally read 'accipiantur senationes circa paritaria...' ('groundsel such as pellitory...should be taken').[182] The Wellcome manuscript includes a limited glossary which explains some, but not all, of the text's various emendations. This glossary states that 'senationes i. cresonum', suggesting that the second hand was unable to read senationes sensibly and supplied 'cressoni cretani', as an alternative herb applicable in this case.[183]

These sorts of like-for-like terminological emendation are found relatively often throughout the Wellcome text. This may have influenced or led to the inclusion of a glossary that offers a set of alternative readings for medical ingredients and illnesses, which appear in the wider text. Some of the glosses, such as 'senationes i. cresonu*m*' appear to have been emended by later copyists, but others simply provide alternative readings. For instance, the glossary states that 'Teste avelane i. gusse niçolarum', which refers to the section on 'lesionibus tergi', saddle-sores. Unlike the cressonum this remedy still uses 'testa avellane', hazelnut shells, so the gloss 'gusse niçolarum' can be interpreted as an alternate reading. The c-cedilla of niçolarum, which is also present in Jordanus in the ailment known as 'Malo pinçanese/pinçunese', identifies this as an instance of code-switching, perhaps aligning the scribe with an Italian-language community. Other glosses, such as 'Tuellu*m* i. u*n*gula viva' are intended to address the problems associated with the interpretation of technical treatises, such as *De medicina equorum*. Tuellum refers to the 'frog', the living part of the underside of a horse's hoof. It is a word which is not in common parlance but used frequently in medieval horse texts. The glossary in Wellcome

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[182] For instance, Marciana, MS Lat.VII XXIV, f. 60

[183] Wellcome MS. 7756, f. 6[v]

7756 can be read as part of the wider process of adapting and developing Jordanus's text to fit the purposes of its audience.

As well as alternate readings, the Wellcome text also includes entirely new material. The *dolore ex retentione urine* section includes a remedy which was added to the inside margin of text, by the most common second hand: 'Take the urine of whomsoever and mix it with wine and place it in the nostrils and before long it provokes urine.'[184] Although insufflation was a common application method and urine is used several times by Jordanus as an unguent (for *scabies* and *crepatiis*, both skin conditions and both treated with compounds involving *urina pueri*, boy's urine), this particular remedy is peculiar to the Wellcome manuscript and does not appear in the majority of Jordanus texts, including the Marciana exemplar.[185] Additional remedies and annotations are not necessarily relevant to their context. Two marginal recipes in a fourteenth century Latin Jordanus text offer unguents for a horse's feet and hooves. The first hardens the horse's hoof, such that it can suffer any blow and the second is for a horse whose feet are so soft that they cannot hold a nail. The annotation is in a second hand, suggesting that it was made by the text's owner or end-user. The recipes are added to the bottom margin of a page dealing with 'scalmatus' and 'infusticus', both illnesses centred around the trunk or abdomen, not the feet.

Code Switching

Some annotations provide indications of the linguistic context in which the manuscript was used. A fifteenth-century Latin copy of Jordanus held by the Bibliothèque nationale de France has a single additional remedy in French, added to the end of the treatise in the original hand. The remedy uses a collection of medicaments (honey, orpiment, verdigris, calx viva, turpentine) that are familiar to the Jordanus text and commonly bought by marshals. They are also significantly less exotic and expensive than some of Jordanus' *materia medica*.[186] A late-fourteenth century Latin copy of Laurentius Rusius has a postscript annotation in either the first hand or a near

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[184] 'Ad idem. Accipe urinam cuiuscumque eam et misce cum vino et in naribus infunde cito provocat urinam' Wellcome MS. 7756, f. 9ᵛ

[185] *Jordanus Ruffus*, pp. 61 and 82.

[186] See Roth, pp. 55–58.

contemporary that translates his anaesthetic draught into Italian, rendering the head phrase 'if your horse is so ferocious or proud that it is not possible to perform surgery upon it'. The rest of the principal text is in Latin, and it is interesting that this was the section which was translated into Italian, perhaps due its utility. The Italian procedure states that the horse can be revived by washing its head and genitals with vinegar, whereas the original Latin uses frigid water.[187] As well as the first recipe that used hemlock (*iusquiami*) and was drawn from Theodoric, Laurentius presented two additional recipes, but the Italian procedure only presents the first of these. As such, it is possible that it was drawn from an Italian source for the Theodoric text. The additional procedures are more complicated and use a broader variety of narcotic substances, so the first procedure may also have been the annotator's preferred version.[188] After the Italian anaesthetic, a second hand presents a long charm in Latin that was to be tied around the horse's neck.

Cosmetic remedies

Copyists often added cosmetic remedies to Jordanus manuscripts. A marginal annotation in Wellcome MS 7756 to the section on *omnibus supra ossibus*, which deals with tumorous growths on the legs, offers a complex additional set of remedies and regimen, which are not found in other Jordanus texts.[189] This regimen includes a prescription for 'succo lapacii', to promote hair growth. *Lapatium* – or dock – is a reasonably common medical herb; appearing in the *Tractatus de herbis*, but it does not appear, at least under that name, in the main body of the Latin Jordanus tradition.[190] It is not found elsewhere in the Wellcome text, the Marciana, the Molin edition etc., making this interpolation a relatively unique addition by the copyist to the Jordanus corpus. Beinecke 1024 includes, as a marginal annotation, an unguent in Latin for turning a black star on a horse's forehead white. A fifteenth-century Middle English horse medicine collection offers a different method with the same intended result.[191]

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[187] As does the earlier Theodoric of Cervia text.

[188] Firenze, BML, MS Plut.77.25 f. 49ᵛ

[189] Wellcome MS 7756, f. 17

[190] *Tractatus de herbis (Ms London, British Library, Egerton 747)*, ed. Iolanda Ventura (Florence: SISMEL, 2009), pp. 513-14.

[191] Cambridge, University Library, MS Ll. I . 18 f. 66ᵛ. See also London BL Sloane MS 962 136ᵛ

Astrology and Charms

Astrological advice, divinations, and charms were common additions to *hippiatric* texts. Jordanus and Theodoric's treatises were notably devoid of such material; Laurentius Rusius added a short section on the importance of astrology to *hippiatric* medicine. Copyists and users very commonly added apotropaic healing, discourses on astrology to manuscripts, either within the text or as marginal and postscript inclusions. This should be thought of as a sign of use, response to a lacuna.[192] For example, a fifteenth-century copyist of Laurentius Rusius' treatise included within the main body of the texts a set of prayers and written amulets as part of the responses to *farcina*. These involved several elements including inserting lead tokens under the horse's forehead. These were first to be engraved, one with a symbol akin to a church-frame and the other with 'not sat' and the forehead was to be opened with a goat's horn.[193] A similar remedy in a fifteenth-century Middle English collection involved placing a lead coin under the skin of a horse's forehead that had first been engraved on both sides. The side facing the horse should say: 'jhezuz nazarenus et iudeus crucis misereri mei', the other side read 'super aspidem et basiliscum ambulabis et conculcabis'. The second phrase, 'you shall walk amonst the asps and the basilisks and you crush them under foot' refers to Psalm 90 (13).[194] Another fifteenth-century copy of Laurentius Rusius included many verbal charms and written talismans for *vermes*, *aragiata*, and urinary retention.[195] These were also written within the main body of the text and include a large number of procedures including, against *vermum*, a version of the alabia + zarabatuar + ortoy charm also seen in the Add. 22126 version of Laurentius. A variation on this charm was also presented against *vermum* in a fourteenth century Latin horse-medicine text by Uberto de Curtonova.[196]

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[192] For a much broader discussion of the rationality of magic see Chapter 4: Magic, Miracles, and Horse-Medicine below.

[193] London, British Library, MS Additional 22126, f. 11

[194] London, British Library, MS Sloane 962, f. 133ᵛ

[195] Vatican City, BAV, MS Vat. Lat. 4475, ff. 24-25ᵛ, 33ᵛ, 34ᵛ-36

[196] Vatican City, BAV, MS Reg. Lat. 1010, f. 74ᵛ

Astrological advice is a less common addition to *hippiatric* texts than charms. However, there is at least one fascinating astrological supplement of note in a late-fifteenth century Italian copy of Laurentius Rusius. The principal text concludes with a brief astrological section in Italian, advising which body parts correspond to which zodiac symbols. After the main body of the text there is a postscript addition in a different hand, which repeats this astrological instruction in Latin and gives several recipes for aqua fortis, aqua luminosa and an unguent 'de egipto'. Following this there is a much more complicated astrological chart, for calculating days that are good, bad, and indifferent. The months for this chart have been added in Italian by an additional hand.[197] Astrological charts did not only form part of the *hippiatric* corpus as copyist or user additions. Figure 1 shows a zodiac horse from a richly decorated late-fourteenth century copy of Boniface of Calabria's *Libro de la Merescalcaria*.[198] This variation on the zodiac man common to illustrated medical manuscripts shows the reader which signs govern each body part, and therefore tells them when to avoid blood-letting or other procedures. Charms, talismans, and astrological instruction were a common addition to *hippiatric* texts, evidencing their very real and common use. As Chapter four will demonstrate, they were not the last resort of ignorant or low-status practitioners.

Conclusion

This chapter gives an overview of the evolution and reception of the *hippiatric* tradition. The standard that Jordanus set was significant in terms of the structure and grammar of horse-medicine literature but it had its limitations. Successive generations of copyists and users adapted, developed, and enhanced the genre of horse-medicine text to meet the expectations of horse-users and care-practitioners. They modified the language of *De medicina equorum* and the other treatises to clarify the texts and their components for specific audiences, they emended terms for illnesses and remedy components either to localise texts or to solve ambiguities. They filled lacunae such as

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[197] Vatican City, BAV, MS Urb. Lat. 1410, ff. 118ᵛ-119.

[198] London, British Library, MS Additional 15097, f. 59. Josefina Planas, 'The Zodiac and the Stars in a Treatise on Veterinary Medicine of the Crown of Aragon', *Manuscripta: A Journal for Manuscript Research*, 56.2 (2012), 269–300.

the absence of charms, behavioural and cosmetic remedies, divinations, and astrological instructions. This chapter has demonstrated the value of approaching the *hippiatric* tradition as a whole, rather than only studying *De medicina equorum* or focussing on a narrow and decontextualised sample of texts. Because of the significant size of the *hippiatric* corpus it has only been possible within the bounds of this thesis to give a preliminary outline of the variations, localisations, and developments within this genre. A proper analysis of these variations requires that the texts be placed into a clear social and cultural context; developing our understanding of the contexts of horse-medicine became the prime focus of this thesis. Future studies will no doubt enhance our understanding of the response and reception of the *hippiatric* treatises, particularly when looking at local variations and trends.

<u>Chapter 3. Horse-care practitioners</u>

Introduction

This chapter moves on from discussing the *hippiatric* texts to expand the picture of medieval horse-medicine by considering the variety of individuals and groups involved in providing daily care and interventionary therapies to horses. It looks not only at *hippiatric* writers but a much larger array of horse-carers; from seigneurial and royal stablemasters to cart-horse drovers. It considers individuals who cared for horses as part or all their occupational duties as well as non-occupational horse-carers: owners and users of horses whose status or poverty meant that they were unable to access professional horse-care. Studying the practices and experiences of lower-status and less-literate horse-carers requires moving beyond didactic treatises and analysing charitable horse-care, namely through miracle narratives. This chapter examines the impact of status and poverty on the dynamics and affective relationships of horse-care.

It also considers the occupational identities of horse-carers, looking in particular at the development of marshals' guilds in urban England, France, and Italy. It looks at the roles and expectations of horse-carers, known as marshals, and the overlap or porosity between horse-care and other occupational identities, notably smiths and surgeons. This chapter demonstrates the often-tense relationships between urban marshals and other practitioners over practising rights, trade monopolies, and civic duties. It also discusses the developing professional cult of St. Eligius, whose narratives and legend incorporated horse-medicine during this period. Finally, this chapter investigates the relationships between horse-care practitioners and their broader environment; focussing on accusations of negligence or perfidy and the regulation of urban marshals. It also considers the efforts marshals made towards self-fashioning, constructing their own professional identity along lines of gentility, affluence, and education.

A Lexical Note

There are many words in medieval and modern European languages for those who care for horses. The classical Latin *veterinarius* had fallen somewhat out of favour by

the 13th century and was replaced by *marescalcus*.[199] *Marescalcus* found its way into roughly the same set of languages into which Jordanus's text was translated. From there it became *maréchal* in French, *manescalcia* in Spanish, *mascalcia* in Italian and marshal in English. Spanish sources also use *albáytar* etc., from the Arabic *baytar*. The French term *maréchal-ferrant* from the Latin *ferrum* meaning iron, does not appear until c. 1500 but is frequently used by scholars such as Cécile Auliard interchangeably with *maréchal*, to mean one who treats and shoes horses. Both *maréchal-ferrant* and farrier, its English equivalent, have been all but stripped of their medical connotation since the development of the veterinary colleges in the eighteenth and nineteenth centuries and the professionalisation of animal medical care.[200]

Who cared for horses?

Hippiatrics, stable-masters, and horse-doctors

In the prologue to *De medicina equorum*, Jordanus describes himself as 'miles in marestalla': a knight-farrier, firmly positioned within the chivalric world of late-medieval Italy. Jordanus wrote his treatise to benefit the martial aristocracy, who proved the 'greater nobility of their souls through military honour and war' and to provide a model of diligent care for those horse which 'separate the princes, magnates, and knights from lesser people'. Ruffus' text benefitted from the knowledge and experiences he gained in the service of Frederick II, from which we can infer both the Emperor's significant personal knowledge and the privileges of Jordanus's position. *De medicina equorum* is fundamentally a deontological text, presenting an archetype of horse-care and management that frequently refers to the perils of ignorance and mismanagement. Through his text Jordanus offers an example of the archon horse-carer: the imperial

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[199] For the link between marescalcus and the Frankish marhskalk or the Old High German marah scalc - both meaning horse-servant, see Auliard, 'Les Maréchaux à l'époque Médiévale', p. 161.

[200] Because my study is cross-European it does not seem right to use 'maréchal' or 'mascalcia' as a general term. For the sake of simplicity, even though it has lost its equine connotation, I am going to use the English word marshal as a general term when not referring directly to source, or some form of 'horse-healer'/'primary carer' when there is little professional connotation. I will try to use whichever term the source uses when I'm making reference to a given source.

stable-master. Although he provided little in the way of personal history, Jordanus made it clear that his treatise was the product of his own knowledge, experience, and wit that he employed in the service of the Hohenstaufen Emperor.

Jordanus became both the progenitor of a western *hippiatric* tradition and the model for an aristocratic or high-status horse-carer who was defined by their relationships with noble patrons, particularly military leaders. Boniface of Calabria (fl. c. 1270), whose *libro de la merescalcaria* was one of the earliest developments of the Jordanus-tradition, was made a knight and granted the town of Geracchy (now called Geraci Siculo) by Charles of Anjou (d. 1285) because of his teachings and knowledge of horse-medicine.[201] Antonio de Barulo translated Laurentius Rusius' *Liber de signis bonitatis et malicie equorum* into Italian for Niccolò III d'Este, the marquis of Ferrara, in 1422.[202] As one of the condottierri – leaders of mercenary companies commonly contracted by the Italian city-states and Papacy – Niccolò became an important leader in the first half of the Fifteenth Century. For patrons such as this, *hippiatric* treatises were part of a broader interest in didactic literature appropriate for the military aristocracy; Niccolò also acted as benefactor to the fencing master Fiore dei Liberi, who dedicated his influential fighting manual the Flower of Battle to him in 1410. Niccolò may have left a significant library of *hippiatric* texts to his successors and their stablemasters. Giovanni Maria dalla Salla, stablemaster to Niccolò's grandson Alfonso I (1476-1534), owned a *hippiatric* compilation in Italian that included Boniface of Calabria's *libro de la merescalcaria* and several other treatises.[203] It also included a calendar emphasizing St. Barsonofius of Siponto, which suggests a southern Adriatic derivation, and which gives Easter Sunday as 27 March. The script points to the first quarter of the fifteenth century signaling that the text was created either for 1407, 1418, 1428, or perhaps 1440 (the years in the early fifteenth century in which Easter Sunday fell on that date).[204] This would place its likely creation during the latter part of Niccolò's reign, when we know he commissioned other similar texts. The illustrations also suggest a connection with Niccolò as they correspond with the figure

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[201] London, British Library, Additional MS 15097 f. 51ᵛ

[202] London, British Library, Additional MS 22824 f. 62

[203] New York, Morgan Library, MS M.735

[204] Unpublished manuscript notes for MS M.735 (Morgan Library, 1949), pp. 1-3.

style, technique, and blond hair of an early fifteenth-century manuscript of the Flower of Battle.[205]

Many of the developments in the *hippiatric* tradition were prompted by noble stablemasters. Laurentius Rusius (fl. after 1342) was the 'most humble servant' of Napoleon Orsini, cardinal deacon of Sant'Adriano al Foro, whose family was highly influential in late-medieval Roman politics.[206] This position granted Laurentius a significant social standing as well as access to a variety of *hippiatric* texts and practitioners: he was able to study the care of horses with 'diverse marshals from almost every corner of the world'. As the hippiatric tradition developed, marshals were sometimes attributed spurious relationships with classical and heroic figures. An Italian translation of Jordanus Ruffus' treatise written in 1460 relates that Jordanus compiled his text at the request of Alexander the Great.[207] Similarly, a sixteenth-century treatise attributed to 'Maestro Facio' is dedicated to 'Missier Joanne, who lived during the time of the Emperor King Charles the Great, and who understood the conditions, and all fevers, and other infirmities that can arise in the body of a horse'. The mysterious figure of Joanne may be a misunderstood allusion to Jordanus though it seems more likely that the author intended to imbue the text with imperial authority through the figure of Charlemagne.[208]

The high-status marshal had to be both literate and knowledgeable; experienced and innovative. When writing one of the earliest post-Jordanus *hippiatric* texts in the late thirteenth century, Theodoric of Cervia (1205-1295/6) drew heavily upon several ancient sources including Palladius' *de re rustica* (c. 400 AD) and the *mulomedicina* of Vegetius (fl. 5th century).[209] Theodoric, a student of Ugo Borgognoni and the author of an influential treatise of human surgery, was addressing one of Jordanus' fundamental lacunae: a lack of classical authority. For all its complexity and influence, *de medicina equorum* was entirely

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[205] New York, Morgan Library, MS M.383 see also Unpublished manuscript notes for MS M. 735 (Morgan Library, 1949), p. 2.

[206] *Laurentius Rusius*, p. 2

[207] London, Wellcome Library, MS 788 f. 130

[208] Paris, BNF, MS Ital. 928, f. 17; Giuseppe Mazzatinti, *Inventari Dei Manoscritti Delle Biblioteche d'Italia* (Firenze: Olschki, 1950), XXXVI, p. 36.

[209] For the most recent study of Theodoric and his texts, see Schwarzenberger.

bereft of an expressed authoritative tradition, putting it at odds with contemporary medical writing that valued a clear relationship with the *auctoritates*.[210] Through his rendering of Vegetius, Theodoric also challenged the status of animal healers, particularly in relation to physicians. The Roman author bemoaned the fact that learned veterinary practitioners were deemed to have 'less dignity than those charlatans who promise to cure cattle'.[211]

Rustics, *provinciales,* herdsmen

Hippiatric writers were keen to emphasise the nobility and value of horse-care. Theodoric used Vegetius to dispute the notion that it was somehow shameful to practice horse-medicine; that it was beneath the attention of 'noble men'. Jordanus separated the *miles in marestalla* from a more ignorant and ignoble class of practitioners identified as 'provinciales'. He accused these rustics of employing horrible, savage bridles and foolish remedies, distinguishing their practice from his own.[212] The Florentine marshal Dino Dini (fl. 1352) complained that most of his contemporaries were the uneducated sons of farmers, raised as rustics and more suited to herding cattle.[213] The iconography of *hippiatric* care also emphasised the distinction between noble, learned marshals and the *rudis* tasked as herdsmen. A rich and comprehensively illustrated Italian translation of Laurentius Rusius' treatise (BAV Vat. Lat 7228) created in northern Italy around the middle of the fifteenth century, includes several miniatures of herdsmen. They are depicted as barelegged, wearing simple robes and shoes in comparison with the brightly coloured and elaborate cloak, tunic, and hose worn by marshals or masters in the same text. The herdsmen have crude and weary facial features and appear physically exhausted; either seated or leaning on sticks. Their light hair, sloth and inattentiveness might relate to a phlegmatic complexion and the overall picture aligns with the representation of

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[210] Cornelius O'Boyle, *The Art of Medicine: Medical Teaching at the University of Paris, 1250-1400* (Leiden: Brill, 1998); Monica Green, 'Medical Books', in *The European Book in the Twelfth Century*, ed. by Eric Kwakkel and Rodney Thomson (Cambridge: Cambridge University Press, 2018), pp. 277–92.

[211] *Theodoric of Cervia*, I, p. 11.

[212] *Jordanus Ruffus*, pp. 14.

[213] Paris, BNF, MS Italian. 459 ff. 1-1ᵛ

peasants as malformed, crude, and somewhat bestial – all very much in opposition to the high-status marshal represented elsewhere in the text.[214]

Several of the herdsman are also depicted wearing versions of the *pileus cornatus* – the distinctive, pointed hat that served as a distinguishing sign for Jews in later-medieval Europe and was associated with the rise of anti-Jewish discourse.[215] Jewish figures are relatively uncommon in *hippiatric* texts and very few Jewish marshals or *hippiatric* writers have been identified – other than translators such as Moses of Palermo. The iconography of Jewishness in the case of the herdsmen is clearly intended to exacerbate the sense of beastliness and ignobility, but the *pileus* could also be a symbol of defiant separation, without denoting poverty or low status.[216] An illuminated copy of the treatise attributed to Boniface of Calabria (BL Additional MS 15097) includes a depiction of a finely-dressed Jewish man wearing a conical hat, a long fur-trimmed robe, and fashionably pointed red shoes.[217] He is mounted on a large, proud horse that is presented as expensive and noble because of its ambling gait, upright head, ears, and tail; as well as its gold-trimmed bridle with matching saddle-cloth, and delicate caparison. He is presented not as a crude and ignoble rustic, but as the wealthy owner of an injured horse on the facing folio, his hand clutched to his chest on seeing a severe wound on the horse's back.

The royal and ducal stablemasters and *hippiatric* writers discussed thus far catered to the elite and had the most influence over the development of written horse-care. They presented an archetype for a retainer in the service of a noble employer and reflected the ideals of an aristocratic and usually military culture. They were by nature atypical, the most exulted representatives of a large and diverse set of individuals and groups involved

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[214] For the phlegmatic complexion as an indicator of acedia or improbity, see Elspeth Whitney, 'What's Wrong with the Pardoner?: Complexion Theory, the Phlegmatic Man, and Effeminacy', *The Chaucer Review*, 45.4 (2011), 357–89; Freedman discusses the peasant as crude or bestial in *Images of the Medieval Peasant* (Stanford, Calif.: Stanford University Press, 1999).

[215] Naomi Lubrich, 'The Wandering Hat: Iterations of the Medieval Jewish Pointed Cap', *Jewish History*, 29.3–4 (2015), 203–44.

[216] Lubrich, pp. 227–31.

[217] London, British Library, Additional MS 15097, f. 2v. see also New York, Morgan Library MS M.735 f. 3v

in the theory and practice of horse-care. These included guild-masters, marshals, and apprentices; blacksmiths, horse-herds, stable-boys and squires. The doctrine of the six non-naturals encouraged a holistic view of animal-health and care, associated with maintaining the external influencers of health such as food, 'clothing', and accommodation. Therefore, the study of horse-care practitioners should also touch on hostelers, saddlers, hay merchants and other artisans of the equine body.

Horse owners

Finally, the most common horse-care practitioner in this period was not an occupational carer but the animal's owner and principal handler. This is particularly true when we consider the importance of daily observation and bodily maintenance – which were central pillars of medieval horse-care and human healthcare. By its nature the *hippiatric* tradition favours a study of stablemasters and high-status carers, who were more intimately involved as a group in the development of the tradition. *Hippiatric* treatises rarely give more than a very general indication of the wider practice of horse-care. However, by studying scribal additions and marginalia we can access much more of the layering of *hippiatric* knowledge and the use of these texts by practitioners. This also gives an indication of the relationship between theory and practice through the favouring of certain remedies and concerns surrounding particular illnesses and ailment types. Animal health and care narratives – principally miraculous healing stories – provide a much broader view of horse-carers, particularly of non-occupational and low-status carers who were less likely to be literate and unlikely to be represented by didactic texts.

In late-medieval Europe horse-carers commonly turned to saints for aid when their animals were sick, injured, or dying. The horse's carer would pray to the saint for aid identifying the animal and the specific ailment through a ritualised and often locally specific invocation. The carers would then bring the cured animal to the saint's shrine to give thanks for the remission of their suffering and recount their stories. These miracle narratives give a much broader sense of the nature of horse-care practitioners than the *hippiatric* tradition because they cut across lines of status, wealth, and literacy. Horses from every layer of society are represented; from spavined carthorses to beautiful palfreys and blind destriers.

These miracles were distinguished from another class of (particularly earlier) miracles in which the saint would spontaneously cure an animal without the any human

intercession. The later miracles involved at least one additional caregiver – the supplicant who prays for the saint's intercession on behalf of the horse. They often involved several other people associated with the sick and injured animals: owners, more than one caregiver, public health officials, knowledgeable onlookers. As healing narratives, these miracles offer an insight into the networks of care surrounding sick and injured horses, particularly how these networks were affected by status and how care decisions were made during a health crisis.

In certain parts of medieval Europe, people of low-status commonly owned horses and other equids as draft animals, relying on them to transport goods to market. They usually acted as their horse's primary or sole carer and relied heavily on tacit knowledge and experience to keep the animal in working condition and free from illness.[218] These individuals were both practitioner and owner, they often had their wealth and wellbeing tied up in the animal and so their health-care decisions took on a pressing importance. Their choices were often circumscribed by a lack of access to other care options, but their decision to go to a saint often relied on prior knowledge of the saint's healing power. When Ugueta Pauli of Marseille's rouncy went lame, she turned to St. Louis of Toulouse (1274 – 1297) because he had previously cured her fever.[219] Or they might be encouraged by somebody else who had witnessed the saint's healing power. Advenia, a sacrist from the monastery of 'Lipois' in Normandy, was travelling to Exmes when her horse collapsed. Having exhausted all other options and being some distance from town, she prayed to St. Wulfran who immediately cured her horse and she was able to continue her journey. As a monastery sacrist, Advenia was of some means but was unable to access help because she was stranded far from town. When she arrived in Exmes, she discovered a young boy called Gaufridus whose beloved horse had collapsed and been dragged by its hair and feet out of its stable to die on the roadside. Advenia told the boy that Wulfran had healed her horse and encouraged him to seek the saint's intercession.[220]

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[218] For instance, *Louis of Toulouse*, pp. 292, 306, 328 and *Wulfran*, p. 160.

[219] *Louis of Toulouse*, p. 292.

[220] *Wulfran*, p. 160.

Horse-carers like Ugueta and Gaufridus relied on their own personal knowledge and experience to deal with infirmities but at the point of a health-crisis (particularly when the horse was thought likely to die) the tacit knowledge of other community-members often come into play. In Gaufridus' narrative, one of his neighbours chose to remove the horse from its stable and leave it at the roadside to die. When the boy began to rush around the horse looking for flax to measure the horse (a supplication ritual), the assembled onlookers were baffled because they judged the horse to be beyond help. The tacit knowledge of the wider community was often called upon to judge the prognosis of a horse and decide whether it was beyond saving. In an early sixteenth-century miracle from Forli in northern Italy, two young brothers named Manfred and Cono arrived at their stable one morning to discover that their horse was dead. Onlookers all judged 'without doubt' that the horse was beyond help because it had been 'thoroughly robbed of movement or sensation' and it was horribly swollen. The bystanders were looking for the same signs of death that a medical practitioner would have used: will the patient move; do they appear to be sensate? When a Master Manent, a surgeon in Marseille discovered that his rouncy had collapsed, he prodded it and pulled it by the tail to see if it would move and whether it could feel anything.[221]

Judging whether a horse had died and needed to be disposed of was a matter of public health and municipal order and was therefore of concern to the broader community, hence the willingness for onlookers to become involved. A town messenger was eventually sent to Manfred and Cono who ordered the brothers to have the horse taken away so that it could be skinned and have its shoes removed.[222] Communities of knowledgeable onlookers acted as quasi-practitioners. Advising on potential cures and deciding when to withdraw treatment are both important forms of care. When a horse-owner's neighbour directed them to dispose of a dying or dead animal, they were reminding them of their municipal obligations and the entanglement of human and

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[221] *Louis of Toulouse*, p. 300.

[222] *James Salomoni*, p. 465.

animal health.[223] The care of non-elite horses was characterised by a network of informal practitioners who offered support and advice to the horse's owner as principal carer.

In contrast, high-status and elite horses were rarely cared for by their owners, who maintained a diverse of occupational horse-carers to whom the various tasks of horse-care could be delegated in a relatively strict hierarchy. This included marshals and stablemasters, as well as servants, pages, and grooms. The relationships involved in elite horse-care, both in terms of daily maintenance and interventionary treatment, can also be gleaned from miracle narratives. Unlike low-status horses, the supplicant who responds to an elite horse's ailment was almost never the horse's owner or principal user, but some other occupational horse-carer or subordinate. When a horse belonging to Roger Mortimer failed to eat for 'nine whole days', it was an unnamed 'servant' who measured the horse to request the intervention of St. Thomas Cantilupe of Hereford.[224] Servants were responsible for making care-decisions, in this case electing saintly intercession over some other form of care. Saintly healing was often selected because other methods had already failed. In 1294, Thomas Cantilupe was called upon by one of John de Lacey's servants to cure an expensive horse that had begun to rage uncontrollably. The servant turned to Bishop Thomas after it became clear that no 'human remedy' could help them. When William of Marseille's rouncy became gravely ill, he paraded it past 'practically all the marshals in Marseille' who replied with one voice, that there was nothing that they could do. Having found no earthly cure, William returned the rouncy to its stable and prayed to Louis of Toulouse for his intercession. When the rouncy was returned to health, three of the marshals stood as witness to the miracle, presumably offering their expert testimony as to its grave former state.[225]

Grooms and stable-boys

Elite horse-owners also retained grooms and stable-boys to provide day-to-day care for their animals. Master Manent, the surgeon of Marseille, left his rouncy in the care

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[223] Heavy fines were levied for improperly disposing of a carcass G. Geltner, 'Healthscaping a Medieval City: Lucca's Curia Viarum and the Future of Public Health History', *Urban History*, 40.03 (2013), 395–415 (pp. 408, 412–13).

[224] *Thomas Cantilupe, pp.* 684, 691-92.

[225] *Louis of Toulouse,* pp. 277-78.

of a boy named Jacob, who witnessed its miraculous recovery. Young men are commonly featured in illustrated *hippiatric* manuscripts; recognisable by their fair hair and rosy-cheeked, beardless complexion. They are usually engaging in menial or physical tasks such as holding or leading horses, fitting saddles, and assisting more senior marshals.[226] Although it is likely that grooms did not administer treatments or make medical decisions they still had the potential to cause a catastrophic injury. The miracles of Thomas Cantilupe record that a *garcio* employed by Gilbert the master of Bridgewater Hospital severely wounded Gilbert's horse when its tongue became tangled in its bridle or bit. When the *garcio* – who was caring for the horse – violently wrenched away the bridle he tore out a large part of the horse's tongue.[227] As the most junior carer, the groom's responsibilities largely involved feeding, watering, and supervising horses as wells as securely placing the bridle and saddle and safely leading the horse.[228] However, the balance of recorded narratives suggests that grooms were in more danger from their charges than vice versa. When Robert de Buckler travelled to Ireland in 1172 his courser was led before him by a boy 'in the knightly fashion'.[229] The horse was known to be belligerent or 'inclined to kick' and yet the boy – who was weary from the journey – hung from its harness, until he was kicked in the chest and fell to the ground, seemingly dead.[230] In August 1300 'Morello of Cornwall', one of Edward I's destriers, kicked a stable boy known as Alemanni whilst they were on campaign. 'Alemanni' was paid five shillings for the injury and another five for the journey home.[231] This incident speaks to the difficulties in accessing the lives of low-status animal-carers. We tend to know very little if anything about stable boys and grooms like Alemanni – which presumably referred to him being German rather than being his name –unless they are injured. The disparity between carer and horse means that destriers were granted the elite-status of their owners and therefore

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[226] See fig. 6.

[227] *Thomas Cantilupe*, p. 670. *Garcio* can refer to a boy, apprentice, or groom.

[228] Andres M Kristol, *Manières de langage (1396, 1399, 1415)* (London: Anglo-Norman Text Society, 1995), p. 43; Andrew Ayton, *Knights and Warhorses: Military Service and the English Aristocracy Under Edward III* (Boydell Press, 1999),

[229] *Thomas Becket*, II, pp. 204-205

[230] The text in Latin uses 'calcitrosum' from *calx* meaning heel or foot.

[231] Hyland, *The Warhorse, 1250-1600*, p. 23.

their lives were often better recorded than their carers. As David Shaw argued, the Duke of Wellington's horse Copenhagen is better attested in the archives than almost any contemporary agricultural labourer.[232] Alemanni was invisible until Morello kicked him.

'He is a horse-doctor and not a physician'

The intellectual culture of horse-care closely followed human-medicine in this period, so it should come as little surprise that there was a significant blurring of the lines between horse-carers and medics. Human and animal anatomy were understood according to broadly the same biological ideas and the factors influencing good and ill health in humans and other animals were largely the same. The observations and procedures necessary to maintain health or cast off disease in humans and horses were very similar and the skillsets that a horse-doctor and human-medicine practitioner relied on were almost identical. Roy Porter viewed the overlapping of human and animal doctors as a sign of premodern medical disarray, including horse-doctors in his 'gaggle' of para-physicians along with empirics, barbers, and charlatans.[233] However, the logical relationship between medical and veterinary practice was largely accepted by medieval observers. Pierre Dubois (fl. c. 1300) thought that equine care should form part of a physician's education; that they should learn surgery 'of men and horses' before medicine but after logic and natural science.[234]

The anatomical theories of *hippiatric* texts such as the *Liber Ipocratis* (c. 1277) were grounded in the idea that God created animals in the same manner that he created humans with joints, veins, nerves etc. and therefore that horses required the same cures, medicine and surgery as humans.[235] Animal medicine and human medicine were seen as largely interchangeable and Ipocras, as the *ur*-veterinarian, was presented as a doctor of

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[232] David Gary Shaw, 'A Way with Animals', *History and Theory*, 52.4 (2013), 1–12 (p. 9).

[233] Roy Porter, 'The Patient's View: Doing Medical History from below', *Theory and Society*, 14.2 (1985), 175–98 (p. 188).

[234] Danielle Jacquart, 'Medical Practice in Paris in the First Half of the Fourteenth Century.', in *Practical Medicine from Salerno to the Black Death*, ed. by Roger French and others (Cambridge: Cambridge University Press, 1994), pp. 186–210 (p. 190).

[235] *Liber Ipocratis,* pp. 102-103, 104.

human medicine who applied his skills to veterinary care without missing a beat. The *Liber Ipocratis* was translated from Arabic into Latin by Moses of Palermo for Charles of Anjou in 1272 and provides a clear, albeit highly figurative, archetype for a horse-doctor in 'Ipocras Indicas', presumably an apocryphal reference to the great medic Hippocrates of Cos (460-370 BC).[236] According to the *Liber Ipocratis*, Ipocras was the most learned and wise doctor (of human medicine) in the domain of King 'Casdre'. He was so wise that he had taught many masters and disciples. When Casdre's beloved page (*domicellus*) fell ill, Ipocras was the only doctor able to cure him. A cowardly ex-student of Ipocras, jealous and enraged by his own failure, poisoned the page to prove that Ipocras's cures were ineffective. This drove Ipocras from human medicine, he vowed to never again cure 'rational creatures' and he began to treat animals who were close to death. From there he began to write down his horse medicine and once again caught the attention of King Casdre who maimed some of his horses and gave them to Ipocras to cure. After he successfully passed this trial Ipocras was commissioned by the King to write his book of horse-medicine, in doing so transitioning from master-doctor to master-veterinarian and providing an archetype for the highest of marshals to be well-versed in both human medicine and horse-care.

Hippiatric writers often had cognate experience in human medicine or surgery, most prominently Theodoric of Cervia who referenced Vegetius to argue for the close relationship between human and animal medicine. 'Just as animals follow after humans, thus the veterinary arts follow medicine'. As a surgeon attempting a work of horse-medicine, Theodoric was likely inspired by Vegetius' argument that human physic and veterinary medicine are 'for the most part harmonious'. Boniface of Calabria was referred to in his treatise as a 'medic, physician, and surgeon of the utmost skill'.[237] People clearly understood horse and human medicine as kindred disciplines. Horse *chirurgia* in late-medieval libraries were often bound with human surgical texts such as Al-Rhazi and Gilbertus Anglicus as well as medical and gynaecological standards like the *pantegni* and *liber trotule*. The library of St Augustine's Abbey in Canterbury held four 'cirurgia equorum', all bound with the 'cirurgia Rogerii' amongst other texts, and all possessed by

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[236] The Arabic source has not yet been identified and may be lost.

[237] New York, Morgan Library, MS M.735, f. 51

Walter of St. George when the register was compiled in the late fifteenth century[238] The overlapping of veterinary and medical practice also extended to cures and remedies. Horse medicine texts and remedy collections frequently included procedures indicated to be beneficial for horses, humans, and other animals. The 'medicines for alle evelis of hors' in Sloane MS 3285 has a charm for 'the farcyne' which is good for 'man and be[a]st'.[239]

In the fluid environment of medieval healthcare, practitioners would often treat humans, horses, and other animals regardless of their expressed occupation or professional relationships. When Edward I rode north into Scotland in 1298 his surgeon Master Peter brought with him a servant or apprentice recorded as John 'the Marshal', who we can assume was assisting Peter with his surgical duties. John was riding a dappled Powys horse worth sixteen marks, a significant sum.[240] A 1493 letter of remission from Poitou, details the death of a man called Leon Fortune, who had visited 'Jehan Berruyer, maréchal' to dress a head-wound. Jehan advised Leon not to become aroused or heated, which he ignored and later died. Jehan was acting as a human doctor, which was not seen as a cause for comment or alarm by the scribe and he was not implicated in Leon's death nor was he deemed negligent or malfeasant. He provided both treatment and advice which turned out to be sound even if it was ignored.[241] Individual practitioners likely offered treatment to a variety of patients and might style themselves accordingly. From 1453-1460, Richard Knyght was called before the sheriffs seven times, declaring himself

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[238]M. R James, *The Ancient Libraries of Canterbury and Dover* (Cambridge: University Press, 1903), pp. 173, 246, 346–48; 'La Biblionomie de Richard de Fournival', ed. by Léopold Delisle, 4 vols (Paris: Imprimerie Nationale, 1874), II, 518–35 (p. 535) Sadly these texts all appear to have been lost or dispersed.

[239] Maria Helena Loen-Marshall, 'An Edition of the English Texts in British Library MS Sloane 3285, Practical Medicine, Sussex Dialect and the London Associations of a Fifteenth Century Book' (unpublished PhD, University of Glasgow, 2005). See also, the *Liber Ipocratis*, pp. 176, 193-4.

[240] Henry Gough, *Scotland in 1298: Documents Relating to the Campaign of Edward I in That Year* (London: Alexander Gardner, 1888), p. 175.

[241] Léonce Celier, *Recueil des documents concernant le Poitou contenus dans les registres de la chancellerie de France* (Poitiers: Société des archives historiques du Poitou, 1958), XIV, p. 24.

to be variously an ironmonger, a physician, a 'dogleche', and a surgeon. Although it seems likely that he would also have provided cures for horses given the number of suits called against him it is remarkable that he never fell afoul of the London Farriers' Guild.[242]

The divisions of practice between those who offered treatments to humans and animals were not particularly clear, and drawn on lines of access, status, and wealth rather than a strict division of patient-species. Identifying marshals acting as human-practitioners is quite challenging, certainly more so than the correlations in *hippiatric* texts and remedy collections would suggest. Danielle Jacquart was surprised not to find marshals amongst the charlatans of late-medieval France, though this is perhaps because marshals – who relied on a forge and a hitching post – did not fit the image of an itinerant practitioner.[243] On occasion a marshal might transition entirely from healing animals to humans. In 1564 the Valencian doctor Joan de Timoneda wrote that he had moved from being a *menescal* 'because they make me pay for killing beasts, but not people'.[244]

However, horse-doctors treating humans could be the cause of scandal and professional rebuke. When Ponç de Roca, a doctor in Llançà, Catalonia was accused of of malpractice in 1308 leading to the loss of his patient Joan Gibern's hand, de Roca defended himself by blaming Gibern for originally seeking the ministrations of a *menescalcus de animalibus*, Romanyan Ferrarius, 'who was not a doctor'. Ponç was obliged to defend his professional reputation by blaming Romanyan, but we should be cautious in assuming that the legal argument rested on him being a marshal, and therefore that horse-doctors were deemed unfit to treat people. Blaming another practitioner was a common defence for surgeons accused of negligence and in this instance the suit was brought not by the patient Joan, but by his original attacker who was trying to evade punishment for the lost hand. Ponç brought in two local *medici*, who testified that a

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[242] Stuart Jenks, 'Medizinische Fachkräfte in England Zur Zeit Heinrichs VI. (1428/29-1460/61)', *Sudhoffs Archiv*, 69.2 (1985), 214–27 (pp. 222–23).

[243] Danielle Jacquart and Ernest Wickersheimer, *Le milieu médical en France du XIIe au XVe siècle* (Genève: Droz, 1981), p. 45.

[244] Carmel Ferragud, 'Wounds, Amputations, and Expert Procedures in the City of Valencia in the Early-Fifteenth Century', in *Wounds and Wound Repair in Medieval Culture*, ed. by Larissa Tracy and Kelly DeVries (Leiden: Brill, 2015), pp. 233–51 (p. 240).

competent medic would have known not to bind the arm too tightly and therefore Gibern would not have lost the hand. Although the accusation in court that Romanyan 'non est medicus' suggests that the three doctors were looking to protect their professional territory disputes of this kind were relatively uncommon and it is unlikely that consulting a horse-doctor would have prompted scandal outside of a court setting.[245]

Roles and Duties

Marshals had several major roles related to horse-care; they shod horses, provided prophylactic care such as purging and bleeding, and interventionary medicine. The 1356 Ordinances of the London Mystery of Marshals detail three major responsibilities for their members: making and fitting horseshoes and nails, advising on horse-sales; preparing and administering medical treatments. [246] These roles, if seen as the major occupations for marshals, follow similar municipal statutes in France. According to their 1464 ordinances, the maréchaux of Rouen had to be competent in three primary tasks: forging, shoeing, and bleeding.[247] Horse-medicine texts and remedy collections suggest that marshals administered a large number of interventionary medical treatments (poultices, draughts, etc) as well as physical and surgical remedies including excisions and ophthalmic operations.[248] They prepared simple and complex remedies and purchased medicaments, as well as preparing and making mundane and therapeutic shoes, bridles, and bits. They often provided for spiritual and magical care; taking horses to shrines such as Noyon, preparing and reciting talismans and charms. Status and group politics played a large part in the roles undertaken by horse-care practitioners, tasks such as smithing and shoeing were often below the dignity of elite marshals and in many locations powerful

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[245] 'Item ponit quod dictus Johannes eligit sibi in medicum En Romanyan Ferrarium de Castilione qui est menescalcus de animalibus et qui non est medicus'. Michael McVaugh, *Medicine before the Plague Practitioners and Their Patients in the Crown of Aragon,1285-1345*, Cambridge History of Medicine (Cambridge: Cambridge University Press, 1993), pp. 184–85.

[246] Thomas Riley, *Memorials of London and London Life, in the XIIIth, XIVth, and XVth Centuries: Being a Series of Extracts, Local, Social, and Political, from the Early Archives of the City of London, A. D. 1276-1419* (London: Longmans, Green and Co, 1868), pp. 292–94.

[247] Moulé, II, p. 8.

[248] See, for instance Loen-Marshall, pp. 347–56.

groups of marshals would try to create a monopoly on interventionary horse-medicine. Like in human medicine, horse-care practitioners were a heterogenous category catering to a very broad selection of patients. This is well demonstrated by the roles and duties that they undertook and the degree of reputability these roles implied.

In his treatise, Jordanus demonstrated a very limited and specific interest in horseshoeing. There is no indication in his text that he had first-hand knowledge of shoeing and he, along with the majority of later *hippiatric* writers, gives little specific or practical advice on shoeing. The practice was beneath them and was largely abrogated to other practitioners. Jordanus gave little advice regarding regular, unproblematic shoeing except to say that a horse's shoes should be the right size and shape for the animal's feet and that they should not be shod until they were old enough, to give the hooves time to develop. However, he was interested in the therapeutic value of shoeing and the potentially deleterious effect of improper shoeing. There are a series of four chapters towards the end of the medical section of Jordanus's treatise which deal with *inclavatura*; improper or erroneous shoeing. Jordanus describes 'inclavatura quae rumpit coronam'; improper shoeing which damages the 'crown', the 'living' flesh of the foot. Jordanus blames this on *imperitia medicantis* — incompetent treatment which leaves the shoe neither 'well attached nor well cured'.[249] Jordanus understood the health impact of shoeing beyond the sense of potential injury, even if he did not believe it was within his own remit. The extent of Jordanus's material on *inclavatura* suggests that he was passing judgement on the practices of horse-shoers and was very familiar with poor and incompetent shoeing, without having picked up a hammer himself.[250] As well as being a cause of injury, shoeing had significant curative potential; marshals like Guglielmo Lucci became particularly famous for therapeutic shoes. In 1330, the marshals of Durham Priory were paid 3s 6d for shoes to cure 'particular vices' of horses belonging to the Prior and other members of the congregation.[251]

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[249] *Jordanus Ruffus*, pp. 9, 97-100.

[250] The potentially deleterious impact of *inclavatura* was recognised both in veterinary texts and by municipal authorities, see the section on Negligence and Malfeasance below

[251] J. T Fowler, *Extracts from the Account Rolls of the Abbey of Durham, from the Original Mss. ...*, 3 vols (Durham: Andrews & Co., 1898), II, p. 519.

The London Ordinances fixed prices for shoeing based around the prices 'before the time of the pestilence'.[252] Prices are defined by the nature of the horse being shod: a courser's shoe costs 2 1/2 pence, a charger's shoe costs 2 pence, a 'shoe of eight nails' also costs 2 pence and a 'shoe of six nails' costs 1 1/2 pence. Given the greater value of a charger or courser compared to a more mundane horse, this seems to follow the contemporary English medical logic that a patient that can afford to pay more, ought to pay more.[253] Parisian marshals were also ordered not to increase their prices after the Black Death. Shoes for a palfrey or rouncey were set at 10d for Spanish iron and 11d for Burgundian iron, shoes for a large Hainaulter horse were set at 7d and all other shoes were set at 6d.[254] In Marseille, smiths were ordered to charge 4d per foot to shoe a horse but only 2d per foot for a donkey or a jenny (a female donkey).[255]

Horse-medicine texts prescribed a large and varied selection of medicaments, some of which are evidenced by the accounts of marshals who were paid for pharmacy, sometimes billed along with shoes and ironwork. The records of the stable of Duke Philip the Bold of Burgundy state that Jaquemart, the marshal, was owed 12 d. for iron to make into nails, 12 francs for the nails themselves and, amongst other various medicaments, two francs for a pound of *sanc de dragon* and four shillings for a pound of *vert de grise*.[256] The marshals of Durham Abbey were also paid for sandragon and verdigris, as well as other pharmaceutical items including honey, vitriol, pitch, copper sulphide, and

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[252] Thomas Riley, p. 292. The price fixing section of the ordinances can be found at least as far back as 1350, Reginald R Sharpe, *Calendar of Letter-Books Preserved among the Archives of the Corporation of the City of London at the Guildhall: Letter-Book A-L*, 11 vols (London: Corporation of the City of London, 1904), F, p. 212.

[253] 'the relative wealth of the patient, no less than the skill, reputation, and popularity of the doctor, also helped to determine the fee' Carole Rawcliffe, 'The Profits of Practice: The Wealth and Status of Medical Men in Later Medieval England', *Social History of Medicine*, 1.1 (1988), 61–78 (p. 65).

[254] René de Lespinasse, *Les Métiers et Corporations de La Ville de Paris*, 3 vols (Paris: Imprimerie Nationale, 1892), II, p. 32.

[255] Régine Pernoud, *Les Statuts Municipaux de Marseille* (Monaco: Archives du palais, 1949), p. 188.

[256] *L'écurie de Philippe le Hardi,* p. 92

wax.[257] Marshals were responsible for making or buying saddles, cinches, and other leatherwork including bridles, head-collars and harnesses. In 1338 the marshals of Durham Priory were paid 4s. for a bridle and girth-strap for a palfrey to be given to a visiting cardinal.[258] Marshals were also responsible for acquiring specialised equipment: for carriage-horses or for breaking and training foals.[259] At several points in the fourteenth century the Durham accounts record that marshals were tasked with acquiring 'traynells', bridles, and saddles for breaking new foals.[260] The *hippiatric* treatises imply that bridles and saddles for new foals would be lighter and more delicate than an adult horse's equipment, this may not have been borne out in practice.[261] A 'traynell' was a hobbling device used in pairs, attaching the fore and rear legs together on each side and forcing the horse to walk in a parallel, 'ambling' gait.

Marshals also provided supernatural care to horses: recording, transmitting, and performing charms; and invoking the thaumaturgical assistance of suitable saints.[262] Along with shoeing, formulating medicines and generally maintaining the health of the king's horse, the *maréchaux* of the Royal Stables in Paris were expected to 'have masses said each day to Monseigneur saint Eloy… who protects and guards the horses of our lord from harm'.[263] The stable-marshals of Duke Philip the Bold of Burgundy were paid two francs to make an offering to St. Eloi on the day of his feast. On the 29 August 1364, Jehan de Groslée, a knight, sold the Duke a brass relic of St. Eloi for four hundred gold francs.[264] The French royal stablemasters were charged with making a regular offering of candles at the image of St. Eloi in June and December, to mark his translation and birth,

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[257] Fowler, II, pp. 502, 504–5, 525–27.

[258] Fowler, II, p. 535.

[259] Benjamin F. Byerly and Catherine Ridder Byerly, *Records of the Wardrobe and Household, 1285-*, 2 vols (London: H.M.S.O, 1977), I, p. 120.

[260] Fowler, II, pp. 518, 541–43.

[261] See the section in Chapter 5 on Domestication.

[262] For a discussion of the relative positions of magical and miraculous care in horse-medicine, see Chapter 4.

[263] Poulle-Drieux, 'L'hippiatrie Dans l'Occident Latin Du XIIIe Au XVe Siècles', p. 116.

[264] Etienne Picard, *L'écurie de Philippe le Hardi, duc de Bourgogne: d'après des documents inédits* (Paris: Chez H. Champion, 1906), p. 95.

to preserve and guard the royal horses from harm.[265] If prophylactic measures proved insufficient, horse-carers, including marshals and other servants, could also be paid to take sick horses on pilgrimage to various shrines to St. Eloi. These included Floursies, Audenarde, and of course the Abbey of St. Eloi in Noyon.[266]

As well as offering interventionary medicine and providing for horses' shoes and other accoutrement, marshals were responsible for the regular care of their herd, including breeding and obstetrics. This was not always particularly well represented by the more central *hippiatric* treatises. Although Jordanus is most famous for the medical sections of his treatise he also discussed housing, breaking, training, and bridling. there were certain areas which are glossed over or entirely absent. For instance, he does not talk about obstetrics, though he does talk about the proper nutrition and care of the stallion and mare to promote good health in the infant by ensuring, for instance, that the greater part of the seed is emitted and therefore that the foetal foal should be larger and stronger.[267] He also talks about feeding the mare properly to ensure a good milk supply and generally ensuring that the mare remains neither 'too fat, nor too thin'. He talks about the proper place for the mare to give birth, 'a mountainous, stony or rocky place', to ensure that the foal develops strong and durable hooves and also states that the mare should not be placed in a stable whilst pregnant as it negatively impacts their leg bones. He also states that foals should be allowed to follow their mothers for the first two years, until they reach 'a perfect state', after which they should be separated because they have become sexually mature and will try to mate with their mother or they could easily be made worse by association with some other beast of burden or they could readily become injured in some part of their body'. Jordanus is talking about herd regulation, a process which in the wild involves the formation of bachelor herds, comprising sexually mature stallions who are excluded from the mare and foal herd by the lead stallion until that stallion dies

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[265] Ludovic Notte, 'La Dévotion à Saint Éloi Dans Les Écuries Princières (XIIIe-XVIe Siècles)', *Revue Belge de Philologie et d'histoire*, 81.4 (2003), 1051–74 (p. 1056).

[266] Notte, pp. 1058–62.

[267] *Jordanus Ruffus*, pp. 2-4.

or becomes incapacitated.[268] In captivity this process needs to be maintained by the herd manager or the herd will become unmanageable.

Jordanus shows a limited interest in gynaecological and obstetric medicine, perhaps because he was principally concerned with maintaining adult male horses, who were the normative category for the chivalric steed. This is further evidenced by sections which talk exclusively about breaking and training stallions, and which use the male act of coitus as therapy.[269] However, other marshals were responsible for sexual medicine and obstetrics. Laurentius Rusius offered several different methods for castration, a vital herd management procedure.[270] Ubertus de Curtenova (fl. c. 1250) gave two recipes in his treatise for abortifacients: an unguent made of thrice-boiled savin oil to be applied to the genitals and an electuary of elder root and sugar.[271] Marshals would need to induce an abortion if the mare was at risk, or if the foal had died, although such interventions seem to have been quite rare.[272] Horse-care practitioners were also concerned with encouraging coition, successful pregnancy and suckling. Laurentius advised that if a mare would not accept a stallion this was due to a defect of the heat in her loins, that could be remedied by apply stinging nettles. He also gave instructions that parturient mares should be separated from the stallion and should endure neither hunger, cold, nor labour, and should not be confined to small spaces as all of these could induce a miscarriage. He also advised that noble mares should not be covered more than once every other year, to give them time to recover and ensure that they provide the most nutritious milk to a young foal.[273] Marshals also gave specific attention to new-born foals, dealing with problems of nutrition and suckling to ensure health development. When a foal's mouth became

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[268] Filipa Heitor and Luís Vicente, 'Dominance Relationships and Patterns of Aggression in a Bachelor Group of Sorraia Horses (Equus Caballus)', *Journal of Ethology*, 28 (2010), 35–44.

[269] *Jordanus Ruffus*, pp. 15-17, p. 37.

[270] *Laurentius Rusius*, pp. 192-196.

[271] Vatican City, BAV, Reg. Lat. MS 1010, f. 151.

[272] Cécile Auliard, 'Les Maréchaux à l'époque Médiévale: Forgerons Ou Vétérinaires?', *Médiévales: Langue, Textes, Histoire*, 33 (1997), 161–73 (p. 164).

[273] *Laurentius Rusius*, pp. 30-32.

inflamed and it could not suckle, the marshals at the stud-farm of Brazy-en-Plaine had to intervene, nursing it with cow's milk.[274]

Wealth and Status

Marshals were a deeply heterogeneous group in terms of wealth and status. [275] The records of the *taille*, the exceptional taxes Philip IV levied between 1292-1313, give a sense of the topography of means for Parisian maréchaux at the turn of the fourteenth century. It also demonstrates the development and entrenchment of horse-care practitioners as an occupational group within the urban landscape. In the 1292 account there were 36 householders identified as marshals; three paid 12d (the poll tax) and the average tax paid was around 12s. The highest amount returned was 40s by Lady Agatha 'la mareschale' who returned four times as much as her close neighbour on the Île de la Cité: Mestre Jehan, the marshal of the king. By 1313, when the poll tax had been increased to 18d, three marshals were wealthy enough to return more than 5 pounds. Unfortunately, like many contemporary tax accounts, the *taille* did not record householders who were too impoverished to pay taxes and therefore these accounts only gives a sense of the wealthier marshals.[276] On the other hand, of the eighteen maréchaux mentioned in letters of remission received by the court in Poitou in the latter half of the fifteenth century, four were identified as impoverished, one was living with his new wife in the house of another maréchal, and several had married the daughters of other maréchaux.[277]

Permanently retained marshals often received quite high wages. For instance, the marshals employed by the Baron of Neubourg at the end of the fourteenth century received around twelve livre tournois per year, compared to cattle herdsmen who received

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[274] F Vignier, 'Le Haras de Brazey-En-Plaine de 1336 à 1432', *Annales de Bourgogne*, 41 (1969), 188–94 (p. 193).

[275] Netchine, 'Les artisans du métal à Paris', p. 44 via Auliard, p. 166.

[276] Sharon Farmer, *Surviving Poverty in Medieval Paris: Gender, Ideology, and the Daily Lives of the Poor* (Ithaca: Cornell University Press, 2002), p. 5.

[277] P. Guérin, 'Recueil de documents concernant le Poitou contenus dans les registres de la chancellerie de France, 1390-1403', *AHP*, vol. 24, pp. 358-9; '…1465-1474', *AHP*, vol. 38, pp. 146.

eight livre tournois. Marshals were, along with falconers, the best paid servants in the Baron's household.[278] The employment of a marshal in 1387 at the Burgundian ducal stud-farm near Brazey-en-Plaine, was initially paid for by a significant reduction in the wages of the farm's custodian. This employment was probably encouraged by the farm's beginning to focus, from 1372, on breeding horses, although it is unclear why there was such a large gap between this renewed focus and the employment of the first maréchal.[279] The wages of the maréchaux at the Royal Stables in Paris give some indication of the increasing status of their position, in the early 1420s the wages of marshal Audriet Levasseur increased from 4d to 8d per day. By the end of the fifteenth century the stables employed two marshals, Pierre Leblanc and Antoine Lemareschal, who both received 120 livres tournois as annually.[280]

For some marshals, with wealth came status. The 1462 ordinances of the confraternity of 'févres, taillandiers et marresaux' (blacksmiths, toolmakers and marshals) in Amiens required that its master be bourgeois, which denoted a certain level of status.[281] Maréchaux often formed part of the mayor's council in fourteenth century Saint-Jean-d'Angély.[282] The opportunities for marshals to gain significant status was particularly high in the febrile atmosphere of the late-Italian city states, where they helped to maintain town militias, aiding both defence and expansion. These militias demanded many high-quality horses who had to be kept in good condition and not lost to injury or illness. Marshals had a significant role to play in preserving the fighting ability of the city guards. As well as caring for horses they also assisted municipal authorities in maintaining and overseeing military horse-stocks. The cities had to maintain an excellent breeding program which meant inspecting potential breeding stock, particularly stallions. The

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[278] *La baronnie du Neubourg*, pp. 138-140

[279] Vignier, 'Le haras de Brazey-en-Plaine de 1336 à 1432', pp. 189-191

[280] Beaujouan, p. 116.

[281] A. Thierry, *Recueil de Documents Inédits de l'histoire Du Tiers État, Première Série, Chartes, Coutumes, Actes Municipaux, Statuts Des Corporations d'art et Métiers Des Villes Des Communes de France. Région Du Nord* (Paris: Firmin Didot frères, 1853), pp. 257–59.

[282] D. D' Aussy *Registers* etc. p. 213 via Auliard, p. 166, n. 35. Unfortunately, Cécile Auliard's assertion that a maréchal was always part of the mayor's council and that this position came with a title is not born out by the texts.

statutes of Mantua banned its citizens from allowing a mare to be covered without the stallion having first been inspected and approved by the town council.[283] They also required that militiamen whose horses become injured or killed present their animals to the town council, to inspect against fraud or malfeasance. These inspections were carried out by town notaries with the aid of 'one of the trusted marshals'.[284] In Verona, the council also employed one good marshal who received a salary from the lord Vicar and the lord *podestà*.[285]

Military Horse-Care

As well as aiding in urban defence, marshals were a common part of military ventures where they are attested in late-medieval retinues and muster rolls as part of the household of wealthier bannerets who might employ them alongside a chaplain, a cook, and a trumpeter. [286] They also often found amongst the non-combatants attached to the army such as Johannes 'le Mareschal', who was employed during Edward I's 1298 campaign as the servant of Master Petrus, surgeon to the king.[287] Dino Dini refers to a marshal named Andrea, who knew Vegetius by heart, became a captain of men-at-arms on horseback and died on campaign in Lombardy. Although Andrea's status as a captain seems to have been independent from his status as a horse-care practitioner, marshals were sometimes considered 'men of war' in their own right. The witness account from a

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[283] Du Cange, 'Guaragnus', *Glossarium mediæ et infimæ latinitatis. Niort : L. Favre, 1883-1887.* <http://ducange.enc.sorbonne.fr/guaragnus>.

[284] Carlo Arco, *Della Economia Politica Del Municipio Di Mantova A' Tempi in Cui Si Reggeva A Repubblica* (Mantua: Editori Fratelli Negretti, 1842), pp. 395–98. 'unius Maniscalchi boni'

[285] Silvana Anna Bianchi and Rosalba Granuzzo, *Statuti Di Verona Del 1327* (Roma: Jouvence, 1992), VIII.

[286] Philippe Contamine, *Guerre, État et Société À La Fin Du Moyen Âge: Études Sur Les Armées Des Rois de France 1337-1494* (Paris; Mouton, 1972), pp. 171–72. Greenblatt for the ; Wurst; H. R. French, '"Ingenious & Learned Gentlemen": Social Perceptions and Self-Fashioning among Parish Elites in Essex, 1680-1740', *Social History*, 25.1 (2000), 44–66; Kirwan and Davies.Philippe Contamine, *Guerre, État et Société à La Fin Du Moyen Âge: Études Sur Les Armées Des Rois de France 1337-1494* (Paris; Mouton, 1972), pp. 171–72.

[287] Gough, p. 175.

letter of remission dated January 1445 states that Anthoine de la Maudaye, the lieutenant of Parthenay, and Maurice Pia encountered on the road a *maréchal* and a trumpeter, both of whom they deemed to be 'hommes de guerre'. An account of the Albigensian Crusade noted that after a battle 'doctors and marshals' ('metge el marescal') emerged together to treat wounds and injuries.[288]

Professional Horse-medicine

Guild Marshals

Marshalcy has so far been represented [in this chapter] as a defined occupation with a wide if slightly variable set of expectations and stereotypes. It could certainly be a quite settled and lucrative occupation, especially within stables and stud-farms, or when held by an individual of means. It also appears to have been a commonly inherited occupation, in the case of Dino Dini, for instance. In several contexts marshalcy might also be described as a profession. Katherine Park argued, with reference to the Florentine guild of doctors in the mid-fourteenth century, that the criteria which define professionalisation are controlled access, licensing, monopoly, autonomy and concomitant ideas of social status and prestige. Toby Gelfand presents the view prevalent amongst historians of modern medicine who place the onus of professionalisation on maintaining standards of 'academic knowledge'.[289] Some or all these ideas can be applied to guilds of marshalcy in medieval urban contexts.

In the Middle Ages, regulation of medical practitioners was undertaken by the crown, municipal authorities, universities, guilds, or some combination of these entities.[290] Horse medicine did not form part of medieval academic medicine, though universities

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[288] Moulé, p. 11

[289] Katharine Park, *Doctors and Medicine in Early Renaissance Florence* (Princeton: Princeton University Press, 2014), p. 12; Toby Gelfand, 'The History of the Medical Profession', in *Companion Encyclopedia of the History of Medicine*, ed. by W. F. Bynum and Roy Porter (New York: Routledge, 1997), pp. 1119–51.

[290] Iona McCleery, 'Medical Licensing in Late-Medieval Portugal', in *Medicine and Law in the Middle Ages,* ed. by Wendy Turner and Sara Butler (Leiden: Brill, 2014), pp. 196-219 (p. 199); Park, p. 22.

sometimes shared control over its regulation.[291] Royal control was perhaps most directly exercised in Valencia after the formation of a court of examination for *albeítars* in 1436.[292] Urban marshals often faced similar contests for control to physicians. In the fourteenth century, surgery faced tensions between conflicting authority groups, when the Royal and Master (i.e. guild) surgeons vied for control over surgical licensing at Châtelet.[293] Marshalcy experienced similar if more protracted issues. In 1268, Louis IX granted control of the Paris guild of smiths, marshals, ironworkers, toolmakers etc to a royal master marshal who now controlled the monopoly over these trades. The marshals of Paris had to pay twelve pence to continue practicing, half to the royal master and half to the king's stable ('aus fers le Roy'). The workers of the guild were now under the strict control of the royal master and any marshals who disputed this control could lose their guild membership and forge, or even be deemed a thief ('larecin') and lose life and limb. This control seems to have dissipated some time before 1463 when the guild of marshals and smiths were granted new ordinances affirming their right to practice the trade.[294] In August 1484 Charles VIII returned control of the guild to his royal marshal, under the 1268 statutes, before abandoning control of the craft again in July 1485.[295]

The major sources for the regulation of marshalcy, whether in the form of royal and municipal licensing or guild legislation are all essentially normative. Although they do not provide an exhaustive representation of horse-care in a given community they do offer an indication of efforts to control the trade of marshalcy. They also provide a series of snapshots, laying out the concerns of the guildsmen (or unincorporated marshals) and their wider community at the time the ordinances were written. Their value extends beyond the relatively limited question of professionalisation which, as Iona McCleery has stated, medievalists have so far been unwilling to engage with as the criteria are 'always

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[291] Giuseppe Simonetti, *L'Arte Dei Fabbri in Pisa: Statuto Del Secolo XIV* (Rocca S. Casciano: Prem. Stab. Tip. Cappelli, 1894), pp. 26–32.

[292] Lluís Cifuentes and Carmel Ferragud, 'El "Libre de la Menescalia" de Manuel Dies: De Espejo de Caballeros a Manual de Albéitares', *Asclepio*, 51 (1999), 93-127 (pp. 120-121)

[293] O'Boyle, 'Surgical Texts and social contexts', pp. 179-180

[294] Lespinasse, II, pp. 437–40.

[295] Lespinasse, II, p. 439 n. 1.

based on modern contexts'.[296] The regulation of marshals and horse-care provides an insight into the management of an important occupation as well as the particular needs and concerns of the communities it served.

The occupational identity of marshals could incorporate a number of different roles. The general Paris Ordinances of 1350, intended to police the city and obviate against the danger of the plague, identify three types of *maréchaux*: those who make metal items, those who shoe horses and those who bleed horses. Marshals in different communities were often associated and incorporated with a number of other organisations. In 1468 the *maréchaux* of Abbeville were incorporated with the blacksmiths, locksmiths and toolmakers.[297] In 1467 the *maréchaux* of Paris were identified with the *feures* (blacksmiths).[298] The two were granted statutes as the 'mestier de feure et mareschal' in 1485.[299] Others, such as the London guild of marshals ('marescall') in 1356 and the Rouen guild in 1464, were incorporated alone.[300] The *maréchaux* of Amiens have a complicated guild history. The second custom of Amiens, dated to the late thirteenth century, required that any sick or dead horse were seen by a maréchal. However, there is no record of a guild involving *maréchaux* until 1462 when the carpenters, toolmakers and *maréchaux* of Amiens incorporated into a single guild under St. Eloi. *Maréchaux* are not mentioned in the 1375 ordonnances which incorporated blacksmiths, nailers and toolmakers. At some point between 1462 and 1480 the barbers of Amiens, being too few in number, were placed under the banner and charge of St. Eloi, along with maréchaux, blacksmiths, toolmakers, and other trades. It is not clear at what point during this period the barbers incorporated with the other trades, but it seems likely that they returned to a singular guild as soon as they were 'of a good number, namely twenty-six masters holding workshops in the city'.[301] This new confraternity was held under the banner and charge

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[296] McCleery, 'Medical Licensing', 198

[297] *Recueil des Monuments Inédits de L'Histoire du Tiers État*, vol 4, pp. 286-88

[298] *Ordonnances des Rois de France de la Troisieme Race, Recueillies par Ordre Chronologique* (hereafter *ORF*), vol. 16, p. 672.

[299] *ORF*, vol. 19, pp. 568-71.

[300] *Calendar of Letter-books Preserved Among the Archives of the Corporation of the City of London at the Guildhall, Letter-book G*, p. 293; *ORF*, vol. 16, p. 229

[301] *RMI,* I, pp. 515, 675; *RMI*, II, p. 466-468.

of Sts. Cosmas and Damian, the shift in patron indicating the particular identity of a barbers' guild, distinct from the maréchaux etc. of St. Eloi. The association of marshals with metalworkers is, perhaps unsurprisingly, very common as they shared common working practices in so far as shoeing and smithing were concerned. The decision of the Amiens confraternity of barbers to incorporate with the *maréchaux* (and others) in their hour of need probably speaks to both the metallurgical and medical connotation of both groups.

When guilds held shared statutes like in Amiens, this did not necessarily mean that there was a sense of overlapping occupational responsibilities. Conversely, decisions to incorporate alone could speak to either a sense of unique professional identity or a community concern, separating trades which were not necessarily compatible or in which perceptions of shared competency could put customers at risk. The Amiens barbers were incorporated with the *maréchaux* etc. for only a few years. As soon as they were large enough to become independent again they did so, marking the occasion with new candles and banners, paid for by the newly expanded membership, and their return to the customary saints for barbers and surgeons; Cosmas and Damian. This speaks to a desire for a unique occupational identity. One of the provisions of the 1356 London statutes sought to limit the occupation of guild members to marshalcy, 'the trade which they follow, and by which they live, that is to say horse-shoeing and farriery of horses'.[302] It also states that no guild member will set to work smiths, servants of smiths or any member of any other trade if they are not skilful and 'well versed in horse-shoeing and marshalcy'. Likewise, the statute requires that smiths 'or other workers in iron and steel' shall not 'withdraw, take or set to work' the servants of marshals during their term of service.[303] Unlike in some previous examples, the London Ordinances tried to separate marshalcy from metalwork, forming a specific occupational identity. Although the stated purpose of the 1356 Ordinances is to combat the great damage done by ignorant people who 'intermeddled with works of farriery', it is as likely that their intention was to combat

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[302] *Letter-book G*, pp. 292-94

[303] p. 294 I suspect that 'farriery' should read 'marshalcy', as per my lexical outline, because the editor of this Letterbook has read 'maréchal' as farrier elsewhere. I'm consulting this manuscript in the New Year to confirm

competition from the smiths. In 1428, the guilds of marshals and smiths in York came before the mayor to complain of competition from each other. This dispute had continued for many years and the workers of the guilds caused such distress that the 'mayor and chamber were hugely vexed' with them both. The guilds complained that the other was encroaching on their livelihoods without contributing to the cost of their annual pageant. A compromise was reached, and the guilds agreed to share the costs of their pageant, proceed together on Corpus Christi, and have a 'true reckoning' of each other's accounts whilst remaining separate entities.[304]

Regulating Horse-medicine

Marshals' guilds functioned principally to control their trade with the assent of local authority whilst providing practitioners with an element of collective security. They provided the opportunity for the pooling of collective knowledge and for polities to set standards and regulatory expectations through the granting of statutes. The Rouen statutes of 1464 begin by stating that marshals of the city must do 'good and honest work, both in the cure of horses and in the working of iron'.[305] Guilds could examine and licence marshals who wished to raise a forge or workroom. The London ordinances of 1356 limited the practice of marshalcy in the city to those who have been 'admitted by the masters of the said trade'.[306] In Pisa, no one was allowed to shoe or treat any animal until they had first been examined and found to be both sufficiently capable in their art and suitable ('idonei') to be a marshal.[307] The Rouen (1464) and Paris (1485) Statutes have roughly similar intentions.[308] In Rouen, marshals were specifically prohibited from holding a workroom in the city until they had completed a masterwork which had been judged satisfactory and sworn an oath to the king to uphold the prescribed ordinances. Furthermore, anybody who wished to 'raise a forge' first had to be examined by the wardens of the guild, swear the requisite oath, and pay 50 *sous*. The Paris Ordinances

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[304] Joyce W. Percy, *York Memorandum Book* (Gateshead: Northumberland Press, 1973), pp. 179–82.

[305] *ORF*, vol. 16, p. 229.

[306] Riley, pp. 292–93,

[307] Simonetti, p. 57.

[308] *ORF,* vol. 16, p. 229, *ORF*, vol. 19, pp. 569-70.

similarly require that any 'varlet' wishing to work and hold a workshop in the city must be examined by the masters of the confraternity, make the customary oath, and pay twenty *sols Parisienne*, half to the king and half to the confraternity. In Rouen and Paris, dispensations were given for the sons of masters. In Paris they pay only five *sols*, in Rouen they appear to be exempted from the entrance requirements, though it is possible that this exemption is intended only as a transitional measure following the death of master. The statutes of Rouen and Paris both had provisions for inheritance of workshops by widows. The Paris Guild allowed widows to hold workshops for the time of their widowhood and to have *varlets*, provided both are of good life and the *varlets* are capable and honest men. The widows of guild members in Rouen can also keep their forge, if they remain a widow, though the justice and the wardens of the guild had to approve their workers. Because these privileges were only granted during widowhood the guild would presumably retain control of the workshops if the widows remarried outside of the trade. There is also no indication that widows were able to take apprentices.

The apprenticeships themselves are also dealt with by the Paris and Rouen statutes. In Paris, each master could have two apprentices and no more, along with his children born from faithful marriages and each apprenticeship should last no less than three years. If an apprentice left or defaulted during this period and any other master of the trade employed them then that master was to be fined ten *sols*. Varlets (servants) were expected to work a fixed term of service and could only be released with the permission of their master. Any other master of the trade who employed a varlet who had left without permission would be similarly penalised. In Rouen, the terms of service of guild workers were also protected, meaning that a guild master could not abandon a worker part way through his employment. The Rouen statutes also mandated a three-year apprenticeship as well as requiring that apprentices swear an oath within a fortnight of completion. This oath had to be made in front of the king or his lieutenant, or the bailiff or his lieutenant and the wardens of the confraternity and it required that the apprentice swear 'good and loyal service to his master and to uphold the ordnances of the trade'.

The guilds also sought to reinforce the links between their hierarchy and medical knowledge. The London statutes required that marshals should not undertake treatments that they could not reasonably foresee coming to a good end. If they feared a treatment would take a 'disastrous turn', they must go before the 'masters and other wise men of the said trade, to ask their council and aid'. The penalty for failing to do so was at the

discretion of the Mayor and Alderman (i.e. out of the hands of the guild) and included making restitution for the lost horse. [309] The York ordinances of 1409 required its marshal when called upon to come to the aid of another marshal who had undertaken to cure a horse but found themselves 'noght of sufficant cunnyng'.[310] Consultation of this nature encouraged the transmission of medical knowledge through the guild whilst reinforcing its professional hierarchy. It also helped to protect marshals from prosecution in case they were unable to effect a cure, or likely to cause further harm.

The expectations and requirement placed upon guild members were upheld and enforced through a guild structure with some sort of municipal oversight. In an amendment added to the London Statutes in 1365, the marshals elected two of their own, Richard de Westminster and John Beverle, to govern their trade and report any defaults to the Mayor and Aldermen. The Paris Statutes describe the election each year of four *preudhommes* by the prevosts of Paris and 'with the assent of the *preudhommes* of the said trade [marshalcy] and the royal *procureur* at Chastellet'. These *preudhommes* had the right to visit all of the workshops belonging to marshals in Paris and reported any defaults found in the chamber of the 'aforesaid royal *procureur*' at Chastellet.[311] Although the role of the municipality in overseeing the guild is slightly more defined in Paris than London, the overall sense in both cases is of a semi-autonomous oversight structure which terminates with the city authorities. This creates a link a between the guild and the city which is reinforced by the guild oaths and the distribution of guild fees, shared equally between the city and the confraternity.

We can see from these statutes that the guilds were trying to foster or encourage a sense of shared professional identity whilst creating an occupational monopoly. In Poitiers, statutes for marshals do not appear until the sixteenth century, when they indicate no one was to use 'pincers, flames, fire or any other instruments" to treat the maladies of horses without the authorisation of the master jurors.[312] The custom of

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[309] *Letter-book G*, p. 293

[310] Percy, p. 177.

[311] *ORF*, vol. 19, p. 570

[312] Auliard, p. 168

Amiens stated that when a horse was injured it must be taken to a marshal.[313] In the Paris Statutes, the feeling is very much that the confraternity and the trade are one, that to be a *maréchal* is to be a guild-member and that membership comes at a price. Guild-marshals were trained, assessed, sworn in, and inspected; each stage of this process was managed and coordinated by the guild or its members, with the consent and oversight of the municipality. By creating a professional identity which is limited by restricted entrance whilst seeking to control training, the statutes present an image of these guilds which largely fits Park and Gelfand's criteria for the development of a medical profession. As well as forming the basis for the creation of a professional identity these statutes also provide an indication of the tensions both within the marshals' guilds, and between the guilds and their immediate environments.

Marshals' guilds controlled their own membership and hierarchy via examination of apprentices, potential members, and masters. They regularly enjoyed a monopoly on horse-medicine in their given town and elected marshals often held positions of acclaim and prestige, especially in Italian city-states. As such, they fulfil most, if not all, of the criteria put forward for professionalisation. Gelfand's remaining criterion – maintaining standards of academic knowledge – only aligns with a strictly hierarchical understanding of medical practice in which knowledge and practice only develop through academic transmission. This precludes many medieval healthcare practitioners who were not admitted to the academy and reinforces the narrative that prior to 1791 there were no true veterinary practitioners.[314]

Self-fashioning

Late medieval *hippiatric* writers used their treatises to present ideals and expectations of their occupation; to create a deontological standard for marshalcy and give it a place in medieval society. Jordanus Ruffus presented marshalcy as integral to the military aristocracy, which relied on well-maintained horses for acts of chivalry and war.[315]

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[313] Augustin Thierry, *Recueil des monuments inédits de l'histoire du Tiers-Etat. Première série, Chartes, coutumes, actes municipaux, statuts des villes et communes de France. Région du Nord* (Paris: Imprimeurs de L'institut de France, 1850).

[314] Wilkinson, p. 10.

[315] *Jordanus Ruffus*, p. 1.

Laurentius Rusius adapted Jordanus' bellicose standard to better suit his role as a cardinal's stablemaster, referring to the horse as a potent tool for enhancing the glory of princes. For without the aid of horses they would not be able to travel to foreign lands or ford rivers, and their feeble bodies could not cast off the defects of their character.[316] Theodoric of Cervia connected marshalcy with the ancient *veterinarius* whilst criticising churchmen who show their greed and vanity through preposterous and unsuitable horses. He recounted the story of an abbot whose bishop demanded a horse greater than Bucephalus: a palfrey quick enough to run the Olympic furlong that is fearless and exuberant in battle and is too civilised to embarrass its owner by urinating in the street, raising its head in the air at foul smelling beasts, or whinnying at geldings and mules.[317]

Marshals could potentially become quite wealthy and important artisans. In a seigneurial stable or stud-farm they were often well-paid and held significant respect and authority. In an urban setting they formed influential guilds and gained positions of significant civic status. This was particularly true of an environment such as the Italian city-states in which mobility, urban defence, and expansion were vital. Marshals who gained wealth and prestige used dress, literacy, and performance to demonstrate their gentile, urbane, and educated nature. Like guild-membership, this process of self-fashioning helped secure the metropolitan marshal's social position and separate them from the rustic and rude herdsman.[318]

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[316] 'Nam sine adiumento istorum, peregrinae adiri provinciae, fluminum impetus superari, defectarum personarum deferri lapsa corpora non valerent' *Laurentius Rusius*, p. 2

[317] *Theodoric of Cervia* I, pp. 10-14; III, pp. 46-52.

[318] The self-fashioning of emerging social groups has largely been studied in the context of the early-modern period and long 18th century, because of its association with the 'middling sort' or bourgeoisie. See Stephen Greenblatt's foundational offering *Renaissance Self-Fashioning: From More to Shakespeare* (Chicago: University of Chicago Press, 1980) as well as; Karin Wurst, 'The Self-Fashioning of the Bourgeoisie in Late-Eighteenth-Century German Culture: Bertuch's Journal Des Luxus Und Der Moden', *The Germanic Review*, 72.3 (1997), 170–82; Richard Kirwan and Jonathan Davies, *Scholarly Self-Fashioning and Community in the Early Modern University* (Farnham: Ashgate, 2013); Nicholas Terpstra, 'Civic Self-Fashioning in Renaissance Bologna: Historical and Scholarly Contexts', *Renaissance Studies*, 13.4 (2008), 389–96. Dominique T. Hoche, *The Reception of Christine de Pizan's Fais D'armes in Fifteenth Century England: Chivalric Self-Fashioning* (Lewiston, NY:

In his 1359 *Mascalcia*, Dino di Pietro Dini, the seventh marshal in three generations of the Florentine Dini family, provided two archetypes for the state of the mid-fourteenth century horse-doctor. He described the majority of marshals as illiterate, unaccustomed to studying their art and – being largely the sons of farmers – raised as rustics and accustomed to herding. Dino then described a series of marshals who illustrate the qualities of a learned and sophisticated horse-doctor. Pietro de Cortone was very cunning in his art and knew how to castrate a standing horse. Andrea had learnt Vegetius's *Mulomedicina* by heart, and could, upon seeing a sick horse, immediately recall the relevant chapter. Guglielmo Lucci of Scorperia was particularly adept at shoeing injured feet and executing fine, perfectly adapted horseshoes. The attributes lauded by Dini were not all medical in nature. Minuccio, marshal of Guido, Bishop of Arezzo was well spoken, very well cultured and of fine manners, whereas Valentinano of Gulia was unfortunately a *hippiatre* of mediocre ability but made up for it by being well versed in the oratory arts. Furthermore, he was well-presented, personable, and charming; he wore rich clothes, a travelling cloak, and a silver belt.[319]

Through both his critique and his laudatory references, Dini identifies several essential and desirable criteria for a professional marshal. The marshal must know their art intimately, which Dini describes as both a practical skill, in the case of Guglielmo Lucci's articulate shoeing, and an intellectual achievement, in the case of Andrea's perfect recall of Vegetius. Dini's emphasis on literacy, further evidenced by his bemoaning of illiterate, rustic marshals, will need to be viewed in part as a generic trope of didactic writing. Yvonne Poulle-Drieux's statement that Guglielmo's knowledge of Vegetius represents the highest achievement for Hippiatric medics in Dini's time also needs to be viewed suspiciously, as it is easy to overemphasise the importance of individual didactic texts.[320] The emphasis on the marshal as a learned, or at least experienced, practitioner fits with Jordanus's expectations and his stressing the role of the practitioner in causing (or failing to prevent) illness.

Edwin Mellen Press, 2008). Dominique T. Hoche, *The Reception of Christine de Pizan's Fais d'armes in Fifteenth Century England: Chivalric Self-Fashioning* (Lewiston, NY: Edwin Mellen Press, 2008).

[319] Delprato, *La Mascalcia di Lorenzo Rusio*, pp. 62-64

[320] Beaujouan, p. 115

Dini's other criteria speak less to the marshal's competence and more to their social standing. Fine clothes, oratory skill, and good manners imbued marshals with the image of a cultured, metropolitan occupation as well as a sense of professional prestige and success. They were certainly a far cry from the blacksmith's apron (or the butcher's, for that matter).[321] Many of the social functions which some marshals began to perform in the later Middle Ages made fine dress, oration and manners a vital part of the marshal's occupation. Not only did the most successful marshal's service the horses of the great and the good but many became individuals of not insignificant social standing themselves.

St. Eligius

Marshals guilds were most often dedicated to St. Eligius (11 June 588 – 1 December 660), the chief counsellor to Dagobert I, the Merovingian king of France.[322] Eligius was born into an influential Gallo-Roman family and trained as a goldsmith before being made the bishop of Noyon. A popular miracle that arose around the late thirteenth century recounts that the saint was brought a dangerously rearing and uncontrollable horse that nobody else was able to shoe. Eligius cut off the horse's leg around the hock, shod the severed hoof and miraculously reattached the limb. It is unclear when this episode that connected Eligius with marshalcy and horse-care developed as it was not included in his *Vita* (written by Dado of Rouen), or miracles.[323] This legend is more commonly attributed in visual sources: wall paintings and chancel screens, carvings, tapestries, and manuscript illumination.[324] The earliest available attestation of this narrative comes from lead tokens recovered from the Seine and dated to the thirteenth- and fourteenth centuries that show Jesus performing the miracle and not Eligius. Visual

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[321] For butchers acting as veterinarians in Toulouse see Wolff, *Regards sur le midi médiéval* p. 114

[322] For instance; Percy, p. 178. *RMI*, II, p. 467.

[323] Ludovic Notte, 'La Dévotion À Saint Éloi Dans Les Écuries Princières (XIIIe-XVIe Siècles)', *Revue Belge de Philologie et D'histoire*, 81.4 (2003), 1051–74 (p. 1052).Notte, p. 1052.

[324] Andrew Breeze, 'Chaucer, St. Loy, and the Celts', *Reading Medieval Studies*, 17 (1991), 103–20.Andrew Breeze, 'Chaucer, St. Loy, and the Celts', *Reading Medieval Studies*, 17 (1991), 103–20.

representations of this legend often attribute the horse's condition to a demon or devil.[325] In his panel painting *Scenes from the Life of Saint Eligius*, Niccolo di Pietro Gerini showed the devil disguised as an angel with black wings and bird's feet sticking out from under dress standing behind Eligius as he shoes the severed foot. In Hans Leu the Elder's 1495 painting of this scene, Eligius is using his pincers to tweak the nose of the devil, who appears as a woman with an elongated nose and no outwardly demonic features. In Botticelli's Miracle of St. Eligius (1490-2) the devil is in the form of a young woman with horns trying to steal the attention of Eligius whilst he shoes the severed hoof. The panel forms part of an altarpiece commissioned by the goldsmiths' guild for the church of the Dominican monastery of San Marco in Florence, in honour of their patron saint Eligius.

This scene was used to illustrate several *hippiatric* treatises, notably two extensively illuminated copies of Boniface of Calabria's treatise on horse-care dating from around 1417. These two manuscripts, which were probably written and illustrated in the same scriptorium in Venice, both included the scene with Eligius tweaking the nose of the devil in the form of a woman with horns.[326] The episode was also referenced in a Middle English horse-medicine collection from the mid-fifteenth century as part of a charm 'to make a horse stand still'. The treatise presented the legend as part of the *histriola* of the charm; saying that this was the 'same charme that Seynt Loye hadde when þat he first hors shodde'.[327] In adapting the narrative, the text takes the foundational myth of the

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[325] See figs. 7-14

[326] See Frederic Madden, *Catalogue of Additions to the Manuscripts in the British Museum in the Year MDCCCXLI-MDCCCXLV.* (London: Printed by order the Trustees, 1850), p. 86. and Bernhard. Degenhart and Annegrit. Schmitt, *Corpus der italienischen Zeichunungen, 1300-1450* (Berlin: Gebr. Mann Verlag, 1980), II/2, pp. 349, 392–415, no. 716, figs. 646, 649, 652, 655, 658, 661, pls. 195-201. The scene is also reminiscent of Apelles of Acoris flinging hot iron into the face of the devil in the form of a young woman in a late-fourteenth century manuscript of the *Vitae Patrum* New York Morgan Library MS M626 f. 48ᵛ. Other *hippiatric* treatises that use the Eligius iconography include Cesena Biblioteca Malatestiana, MS S.XXVI.2; a fifteenth century copy of Laurentius Rusius and Oxford Bodleian Auct. 4Q 5.69 an edition of Jordanus Ruffus translated into Italian in Venice by Gabriele Bruno and printed in 1493.

[327] Cambridge, University Library, MS Dd. IV 44 f. 25ᵛ

marshal as an occupation and modulates the miraculous function – in which Eligius' power comes from his close connection with God – so that Eligius' art and power can be wielded by any marshal and can be explained and disseminated verbally. This aligned Eligius' healing power with the methods common to the marshal's trade.

Marshals used their identification with Eligius as part of their civic display, most notably Nanni di Banco's St Eligius at the Orsanmichele in Florence. This sculpture was part of 14 pieces commissioned by the guilds of Florence from 1399-1430 to decorate the Orsanmichele. The relief of Di Banco's sculpture shows Eligius miraculously shoeing the horse whilst using a pair of farrier's pliers to pinch the nose of the devil, who is in the form of a beautiful woman.[328] Eligius' horse-healing miracle was also used to illustrate the statutes of the marshals of Bologna in 1379.[329] The inclusion of the devil-motif in Eligius's representation shifts the tenor of the narrative, rather than a miraculous healing, this is now a story of resisting temptation. It also develops a misogynistic tone, focussed on the hidden dangers of beautiful, fashionable, and seductive women; as well as linking piety to physical violence. One of the most vivid examples of this is a partially damaged version from the church of Santa Caterina in Treviso, which has been attributed in the past to Pisanello, and dates from around the middle of the 15th century. In this painting Eligius has all but abandoned the horse to accost the golden-haired devil who was unable to hide her serpent tail and clawed feet. The scene is chaotic, the horse is screaming and twisted in pain – unlike the serene patients of the earlier paintings and Eligius is focussed entirely on the devil who he is about to strike with the horse's severed foot. Perhaps this reflects the potential for violence and suffering in a marshal's shop.

The motif of Eligius' miracle seems to be an amalgamation of the narratives of Sts. Cosmas and Damien with the story of St. Dunstan, whose veneration by smiths may have preceded the association between marshals and Eligius. According to his legend, Dunstan was living as a hermit at Glastonbury and occupying himself with metalwork amongst other things when the devil appeared at Dunstan's window in the form of an old man who asked the hermit to fashion him a metal chalice. Whilst Dunstan worked

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[328] Giovanni Antonio di Banco, *Tabernacolo dell'Arte dei Maniscalchi* (Florence, 1417-1421)

[329] Lia Brunori Cianti and Luca Cianti, 'Lo strumentario podologico nella mascalcia medievale. Testi e iconografia', *Pallas. Revue d'études antiques*, 2016, 143–56 (p. 147 n. 14).

the devil changed form – from an old man to a young boy to a beautiful and seductive woman. Dunstan, realising the devil's true nature, grasped it by the nose with his pincers through the window in a similar manner to the representation of Eligius with the devil and the horse. Sts. Dunstan and Eligius were both famed for metalwork and smithing, and at least one medieval guild of marshals and blacksmiths was dedicated to both Dunstan and Eligius, namely the guild in Bodmin.[330] In the most famous miracle of Cosmas and Damien, the patron saints of barbers and surgeons, the two graft the leg of a dead Ethiopian onto the body of deacon Justinian, to replace his gangrenous limb. Like the Eligius miracle which followed it, this narrative was intensely reproduced visually during the late Middle Ages.[331] In using Eligius to position their craft between Dunstan and the twin saints Cosmas and Damien, marshals used their professional iconography and legend to subsume the roles of metalworker and medic. This reflects their conflicts with smiths' guilds in London and York over the boundaries of occupational responsibility and helps to explain why the marshals of Amiens were able to incorporate the flagging barbers' guild in the 1460s.[332]

Negligence and malfeasance

The importance of maintaining the health of horses and the transactional nature of a marshal's business meant that they were commonly accused of negligence and malfeasance. The regulation and licensing of marshals was either intended to obviate against this or protect guildsman from prosecution. Horse-medicine treatises were also interested in avoiding ignorant or negligent treatment, or at least apportioning blame. The *hippiatric* tradition was fundamentally a deontological exercise: through his didacticism, Jordanus presented the archetype of a bad horse-carer. He recognised the substantially deleterious impact that poor management and healthcare could have on a captive animal and expressed this by frequently ascribing the root cause of ailments to the animal's treatment. In the case of the owner (or perhaps user) this is often done without explicitly

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[330] Breeze, p. 113.

[331] Dimitris Beldekos and others, 'The Medical Vestment and Surgical Instruments of Saint Cosmas and Damian on Sinai Icons From the Seventh to the Eighteenth Century', *Journal of Religion and Health*, 54.6 (2015), 2020–32 (p. 2022).

[332] See note 301 above.

or directly ascribing blame, but when Jordanus repeatedly cites 'immoderate labour', 'vigorous charging and galloping' or the 'oppression of an inept saddle structure' the implication is clear that the fault lies with the user. Four root causes for illness crop up frequently which can clearly be attributed to the user: food and nutrition, housing, labour, and horse furniture (mainly saddles, bits and bridlery, and shoes).

Aragiati, a form of severe digestive dysfunction incorporates many of these factors, being caused by 'excessive eating of grass or of similar followed by vigorous riding, and sometimes by drinking of cold water after eating hay without a sufficient interval and sometimes through vigorous ('frenzied') charging or galloping immediately after the horse has been allowed to drink as much as it wants'. All of these potential causes speak to a user who is failing to properly care for and control their horse and is therefore negligent in Jordanus's estimation. A user whose horse is placed in 'a satisfactorily warm stable but afterwards is exposed to a sudden wind' and therefore suffers from *frigiditate capitis* would be similarly negligent having failed to properly maintain their horse's housing.[333]

Jordanus describes a number of illnesses caused by improper labour such as 'malferuto in lumbis', which is often caused by the 'thoughtless placing of an immoderate and excessive load on the horse's back' or 'jarda in garecta' which is caused by the 'oppression of excessive and repeated vigorous riding' and occurs 'more readily in horses which are immoderately or excessively fattened'.[334] Jordanus also recognised that when improper labour was a cause of illness the needs of the animal were often fighting against the needs of the carer. An oppressive load or repeated vigorous riding represent the expectations of the user, which the animal was often not physically capable of meeting. Jordanus also describes 'curba', a swelling of the posterior tendon under the withers (i.e. on the shoulder) which occurs when a horse is ridden which is 'younger than it ought to be'. This is another example of the expectations of the user running contrary to the abilities of the horse and negatively impacting the health of the animal.

Finally, Jordanus recognises the potentially disastrous consequences of medical negligence, which he represents as idleness, ignorance, and malfeasance. He details several

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[333] *Jordanus Ruffus*, pp. 47, 50

[334] pp. 62-62, 69-70, 72.

infirmities of the hoof and 'frog' which he ascribes to medical neglect. Jordanus also frequently describes a pathology in which maladies, such as *fistula* and *superposta*, are caused by an injury or illness which is left untreated or treated unsuitably. *Ficu subtus* is caused when an object 'iron, bone, stone or wood', enters under the frog, and 'due to the negligence of the marshal' damages the hoof. *Mutatio ungulae* is a set of infirmities caused when the 'negligence or idleness of the marshal' allows the fluids flowing to the horse's foot to become feeble and desiccated, causing the hoof to become separated from the frog. In both later instances the responsibility is clearly assigned to the marshal, or to the horse's primary caregiver. It is worth noting that Jordanus makes very few direct references to marshals, and always in the context of negligence. This has particular importance if marshal is taken to imply a degree of professionalisation or the intervention of an individual other than the horse's owner/primary caregiver.[335]

However, the marshal was not necessarily interested solely in the horse's wellbeing, they often had more nefarious intentions. Laurentius Rusius offered advice on how to make a chronically sick horse suffering from *cymoira*, a severe pulmonary condition which Jordanus considers to be 'practically incurable', appear well for up to fifty days.[336] The appearance of health would be most useful when trying to pass the horse on to an unsuspecting buyer. There are certainly instances of individuals identified as marshals being reprimanded for attempting to pass off sick horses as fit for sale. For instance, a nefarious *maréchal* by the name of Homède, who in 1327 was arrested for selling a horse to the abbey at Lagny which not only had a defect in the legs which he was able to hide through some artifice but also it was 'pulsivus seu poussif et habebat unum falsum qualerium'.[337] 'Pulsivus' is another pulmonary malady which is very well represented in post-Jordanus hippiatric texts and 'qualerium' seems to be a Middle French loanword, from 'qualité'. This might refer to the horse's generally decrepit condition, but it might also reference some other malfeasance, like attempting to hide the horse's true colour. Horse-medicine treatises regularly included cosmetic procedures suggesting that marshals were called on to deal with issues such as scarring or depilation due to illnesses or caustic

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[335] *Jordanus Ruffus*, pp. 96-7, 100, 105-6.

[336] *Laurentius Rusius*, p. 134; *Jordanus Ruffus*, pp. 49-50.

[337] Moulé, p. 168.

remedies. The *practica equorum* includes a procedure to encourage the growth of long, thick hair that works on 'horses and women' and involved mixing laurel oil, henbane seeds, and orpiment in a colocynth gourd and anointing the head and scalp with the mixture.[338] Horse-medicine collections also commonly included methods for changing a horse's colour – most often from black to white – or adding attractive features. One procedure that commonly appears in remedy collections involves making a white star on a horse's forehead using a hot iron and the 'brothe' of a boiled mole, presumably because this had a specific aesthetic value.[339]

Guild and municipal statutes regularly enacted rules intended to obviate against marshals engaging in irregular and malfeasant horse-dealing practices. The London statutes of 1356 ordered the city's marshals to give good counsel on the sale of a horse to any who might ask it of them, and not to fail to do so for any 'brokerage or gifts', recognising the potential for marshals to act as unscrupulous horse brokers. Failure to abide by this ruling would cause the trade to be scandalized and the offending marshal would be punished at the discretion of mayor and alderman. The statutes for the marshals' guild in Pisa, which were administered by the university, held a marshal responsible for any horse, mare, or other equid that he sold for a period of 45 days following the sale. If the buyer discovered in that time that the animal had *cimmoira*, *pulsus*, an old pain, *lunaticus* or any other ailment, the marshal had to take it back and repay the buyer.[340]

Medieval marshalcy could be violent and invasive: shoeing and medicine both involved procedures with a significant amount of risk, and – as Jordanus frequently reminded his reader – a horse's owner often bore the greatest responsibility for its care. As such, marshals faced many of the same legal challenges for negligence and malfeasance as surgeons. If a marshal covenanted to cure a horse and something went wrong the principal recourse for the horse's owner was a court action arguing for breach

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[338] London, British Library, MS Additional 35179, f. 30ᵛ

[339] London, British Library, MS Sloane 962 f. 132ᵛ,

[340] Simonetti, p. 61.

of contract.[341] Marshals were often accused of improper action both in shoeing and applying medicines that led to the death or injury of horses. In 1369 William Waldon argued that a marshal had so negligently applied his treatments that William's horse died. Once a marshal had undertaken to cure a horse he could not be accused of trespass – destruction of property – as it was understood that a degree of danger was involved in curing horses, and that this might include physical or surgical interventions. As such, a plaintiff could not bring an action *contra pacem* against a marshal and relied on proving breach of covenant.[342] This meant proving actual negligence on the part of the marshal, which was often remarkably difficult. If a marshal was thought to have acted diligently and done as much as they could then an action for breach of contract would likely fail.[343] Once a marshal had cured a horse to the satisfaction of the customer, his covenant would usually be deemed complete and it would be difficult to accuse the marshal of malfeasance if the horse then became ill later. These accusations frequently relied on a contractual understanding between marshal and customer. In 'Anon vs. Marshal' (1441), an unnamed marshal was accused of negligently treating a horse in London such that it died, but because his services were given freely and without covenant the action likely failed.[344]

One of the functions of marshals' guilds was to protect their members from prosecution, by creating a clear internal disciplinary system: encouraging knowledge-transfer and discouraging behaviours that left marshals vulnerable. The London and York guilds both required their marshals to consult the masters if they had undertaken a cure that is going badly, and they fear that the horse will die.[345] Guilds were particularly

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[341] For the equivalent actions against surgeons and physicians, see Sara M. Butler, 'Medicine on Trial: Regulating the Health Professions in Later Medieval England', *Florilegium*, 28 (2011), 71–94.

[342] As well as Waldon v Mareschal (1369), this was also demonstrated in Hauykns v Broun (1477) in John H Baker, *Baker and Milsom sources of English legal history: private law to 1750* (Oxford; New York, N.Y.: Oxford University Press, 2010), p. 630.

[343] 'Stratton v Swanlond' in Baker, pp. 360–62.

[344] Baker, pp. 367–69.

[345] Thomas Riley, p. 293; Percy, p. 177.

concerned that members should not undertake to treat a horse that is in the process of being treated by another member. The 1464 Rouen ordinances outright banned the practice of shoeing a horse which has already been prepared at another forge. The fine is fifteen *sols tournois*, split evenly between the confraternity, the King, and the wardens.[346] The 1485 Paris statutes expand the remit of this regulation to include taking on any work which has already been started by another master. [347] By discouraging their members from taking on horses that were partway through the treatment of another marshal, guilds were protecting them from assuming responsibility for the potentially incompetent care of another marshal.[348] Although these ordinances provided a clear mechanism for punishing negligent or malfeasant marshals, they also brought it under the aegis of the practitioners and potentially disempowered their customers. Guild-membership could protect marshals from prosecution by providing them with a veneer of professionalism. In London in 1329 a suit against a physician for the loss of an eye was abandoned because the defendant was 'of the profession'. One of the judges argued that if a marshal 'who is a man of the profession injures your horse with a nail and you lose your horse.... you shall never have recovery against him'.[349]

Conclusion

This chapter has presented the broad array of people who provided care and interventionary medicine for horses, disputing Emmanuel Leclainche's argument that only the the *hippiatric* writers should be thought of as veterinarians.[350] Horse-owners of lower status and wealth would often have had to rely on their own knowledge and networks to provide care to their animals in a time of crisis, though increasingly throughout this period they turned to a number of saint-thaumaturges. Occupational horse-carers (marshals) fought for a relatively unique position in the late Middle Ages and

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[346] *ORF*, vol. 16, p. 230.

[347] *ORF*, vol. 19, p. 570.

[348] This was the argument put forward by the assailant in the case of Romanyan Ferrarius, see n. 245 above.

[349] Baker, pp. 340–41.

[350] Leclainche, p. 659.

had a not insignificant status particularly in certain urban environments – most notably Italian City States. This came both with wealth, social standing, and a desire for occupational recognition. The marshal was a reasonably porous practitioner, sitting at the intersection of surgeons, smiths, and physicians. Marshals often developed a cohesive professional identity, through guild structures, civic display, and self-fashioning. This is particularly satriking in the cult of St. Eligius, whose veterinray connotations were brought out in visual culture throughout the late medieval and early modern periods. Horse-care practitioners developed alongside the evolution of the *hippiatric* traditions. Cultures of occupational horse-medicine had not existed in the same fashion previously and it is tempting to argue that in western Europe the development of *hippiatric* tradition and marshals went hand in hand.

Chapter 4: Magic, miracles, and horse-medicine

Introduction

This chapter looks at the range of healing options available to late-medieval horse-carers, considering didactic treatises and remedy collections together with narratives of health and illness drawn from the miracle collections that were common to the period. It shows how the development of the *hippiatric* tradition and other horse-medicine collections demonstrates a keen and sustained interest in charms and talismans as methods of combatting illness; particularly outbreaks of pestilential diseases that could reach epizootic proportions. It shows how animal-healing became a common part of some saint's miraculous works and how this helped to shape who and what were the acceptable recipients of miracles. It considers how particular saints became associated with animal-healing miracles due to the exigencies of appealing to a political class through high-status animals and through the familial relationships and networks of the saints during their lifetimes. It analyses why horse-carers were more likely to use magical or miraculous methods in response to certain ailments and conditions; thinking particularly in terms of status, poverty, and affective human-animal interactions. This chapter seeks to dispute the argument that the paradigm of veterinary options open to the medieval animal-carer was fundamentally hierarchical and that charms and miracles were a superstitious mode of last resort; less valued than intellectually-rational *hippiatric* care. It also objects to the argument that the Middle Ages were a time of limited veterinary capabilities in which healing choices were influenced largely by ignorance and necessities of intellectual and medical subsistence. Having demonstrated in chapter two the breadth of veterinary writing in later medieval Europe and the potential for further study in this area, this chapter argues that horse-care was pluralistic, dynamic, and reactive in theory and in method.

Scholars of medieval horse-medicine have argued since the early nineteenth century that Jordanus and the other *hippiatric* writers followed a strictly rational program, devoid of any magical or superstitious remedies.[351] Veterinary medicine is understood as isolated from human medicine, emerging at the 'antipode of a religious medicine, whether

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[351] See Hieronymus Molin's introduction to *de medicina equorum* in *Jordanus Ruffus* pp. xxxv-xxxvii.

divine or diabolical, which benefits both from the mysticism of the human soul and the uncertainty of accepted science'.[352] Any magical or astrological content added to the tradition has been viewed as symptomatic of a superstitious reception or translation, and therefore not worthy of analysis. This relies on a narrow reading of the Jordanus corpus, excluding any material deemed unworthy, and is illustrative of the methods of current *hippiatric* scholarship. [Focussing on the core Jordanus text in Latin and vernacular translations, or comparing small corpuses of texts with minor variations. Ignoring marks of use and commentary, not analysing the *hippiatric* treatises as a connected intellectual tradition]. These methods have occluded the much broader reception and use of *hippiatric* texts, which illustrate the plurality of veterinary methods.

Tony Hunt referred to several remedies added to a Middle French *hippiatric* text that he and others have identified as a defective Jordanus witness as '[SPURIA]' in his edition of Wellcome 546. Brigitte Prévot excluded this text from her French edition of *La marechaucie des chevaux* because she was unwilling to attribute a charm against 'le farcin' to Jordanus.[353] In practice, this text is a compilation of material drawn from Jordanus and the *practica equorum* and the last seven remedies – which include several charms – were accorded as much value by the scribe as the preceding fifty-nine.[354] Bernard Ribemont went so far as to read Jordanus' lack of magical content as evidence of scientific rigour. This mirrored Gianvito Resta, who argued in 1973 that Jordanus's work was 'not only scientific, but also rigidly experimental, deriving from the long and considered experience of the author'.[355] When the *hippiatric* tradition is viewed as a whole it is clear that magical content is not peculiar to vernacular treatises, as charms and amulets are common in Latin texts. The argument that apotropaic medicine is part of a less prestigious popular canon of remedies does not ring true either.[356]

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[352] Fichera, p. 30.

[353] Prévot, p. 20.

[354] Tony Hunt, *Old French Medical Texts* (Paris: Classiques Garnier, 2011), p. 269.

[355] Gianvito Resta, 'Scongiuri in Siciliano in Antichi Trattati Di Masclacia', in *Aspetti E Prospettive Della Ricerca Demologica in Italia* (Palermo: Manfredi, 1973), pp. 391–401. (pp. 393-94)

[356] Examples of high-status healing magic include the amulet against gout created by Arnau de Villanova for Pope Boniface VIII and the Middleham Jewel: McVaugh, *Medicine before the Plague*

The prejudices held by modern scholars against 'superstitious' material in *hippiatric* texts reflect a much earlier program of contempt and in many cases have not developed much since the nineteenth and early twentieth centuries. In his 1818 edition Molin praised Jordanus's knowledge and experience and compared him favourably to close contemporaries; describing Jacopo Doria's *practica equorum* as 'frivolous, ridiculous and full of superstition'. He referred to Boniface of Calabria's (fl. c. 1266) remedies as 'for the most part futile, relying on divination through astrology and necromancy'. Molin was particularly scathing of Martino de Bologna's fourteenth century commentary on Laurentius Rusius because Martino advised the use of magical incantations.[357] Leon Moulé took a similar approach in 1900, stating that Jordanus's work was devoid of superstitious practices, astrology, and magic. He also followed Molin's lead in stating that Martino de Bologna's commentary on Laurentius Rusius was 'frivolous, ridiculous and full of superstition'.[358] Frederick Smith made his motivation for dogmatically separating the rational and irrational in the history of veterinary medicine clear when he stated that 'it is impossible to read with patience of the grip she [the Church] exercised for centuries over the mind of Europe by her incantations and superstitious practices'.[359] Lignereux isolated Ruffus from the 'bizarre remedies' of twelfth century animal medicine, which she described as 'superstitious, with numerous pagan reminiscences; a medicine resorting to charms and saintly healers'.[360] Roberto Benedetti referred to Jordanus's work as 'one of the first texts of scientific value in medieval Italy, being devoid of any references to magical and superstitious practices'.[361]

Practitioners and Their Patients in the Crown of Aragon,1285-1345, p. 162; Peter Murray Jones and Lea T. Olsan, 'Middleham Jewel: Ritual, Power, and Devotion', *Viator*, 31 (2000), 249–90.

[357] 'frivola sunt, ridiculosa, superstitionis plenissima...futilia magna ex parte sunt, et astrologiae judiciariae necromantiaque innixa', *Jordanus Ruffus*, pp. xxxv-xxxvii.

[358] 'pour le plupart que folles, ridicules et empreintes de superstition', Léon Moulé, *Histoire de la médecine vétérinaire*., 3 vols. (Paris: Maulde, Domenc et Co., 1900), II. p. 26 and p. 42 *cf. Jordanus Ruffus*, p. LVI.

[359] Smith, Early History of Veterinary Literature, p. 70.

[360] Yves Lignereux, pp. 44–45.

[361] Roberto Benedetti, "La Mascalcia di Giordano Ruffo di Calabria secondo le prime redazioni volgari: il caso del frammento 159 dell'Archivio di stato di Udine", in *Lo Scaffale della Biblioteca*

The division of rational and superstitious horse-medicine was aided by nineteenth century cataloguers who overlooked or derided magical or supernatural material. In his 1872 catalogue of the Marciana manuscripts, Valentinelli described as 'foolish and trifling' remedies added to one of the earliest witnesses of *de medicina equorum* because they included a *pater noster* incantation. This is potentially the earliest evidence available for the reception of Jordanus's text and yet Molin justified leaving this section out of his 1818 edition by stating that he had judged that it had little to do with the author because it was unique to this manuscript, but also because it was 'foolish and trifling'. This sentiment was then echoed exactly by Valentinelli, without citing Molin.[362] Nor was this attitude peculiar to Italian texts. A fifteenth-century Middle English *Boke of Marchalsi* held in Cambridge University Library includes a compendium of supplementary remedies added by several later hands, which was referred to by the cataloguer as a 'promiscuous farrago of charms, ending with the abracadabra'.[363] Chapter two argued that we should look beyond the core Jordanus text and treat the *hippiatric* corpus as a developing tradition that adapted to the needs and expectations of its audience. This chapter demonstrates that one of the principal outcomes of this approach is a refiguring of veterinary medicine, to include the significant role played by magical and miraculous healing in medieval horse-care.

The separation of rational and irrational within veterinary medicine places the study of medieval medicine within an earlier phase of medical history; akin to Lynn Thorndike's work on the development of experimental science and medicine. Thorndike accused medics like Gilbertus Anglicus of being 'superstitious after a man of his age', and his overarching philosophy can be understood with the mantra 'Magic and experiment yesterday; science and experiment today. Long live thought! and may it

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Scientifica in Volgare (Secoli XIII-XVI): Atti del Convegno (Matera, 14-15 ottobre 2004), ed. by Rita Librandi and Rosa Piro (Firenze : SISMEL, 2006), pp. 297-308 (p. 297)

[362] Venice, Biblioteca Marciana, MS Lat. VII 24, fol. 69ʳ; Joseph Valentinelli, *Bibliotheca Manuscripta ad S. Marci Venetiarum* (Venice: Typographia Commercii, 1872), V, p. 139; *Jordanus Ruffus*, p. xxvii.

[363] *A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge* (Cambridge: Cambridge University Press, 1855), I, p. 240.

someday regroup itself into Truth!'.[364] This progressivist discourse that defines medical interventions as rational or irrational along modern lines has largely been abandoned. Brévart's argued that "it is unimportant whether [medieval panegyrics] would work under modern scrutiny, what matters is that they were believed to work".[365] Lea Olsan has pointed to complex interpretation of charms and prayers in a number of academic texts as evidence for the nuanced interaction of medico-magical ideals in the later middle ages.[366] Peregrine Horden suggested that for the sick 'the real contrast was less between incompatible systems of ideas—religion, medicine, magic—or between the orthodox and the deviant, than between different authorities'.[367] Gregory Dawes argued that premodern belief in the efficacy of magic was 'rationally formed' – that it met the intellectual and cultural expectations of the period.[368] All of these scholars recognise that rationality; the inherent belief in the intellectual validity of your methods, could exist in medicines which might loosely be defined as natural, supernatural or religious.

Horse medicine has so far occupied a peculiar space in the study of medieval science and medicine. Scholars have not yet accepted the complex interaction of natural, supernatural, and magical therapies described above; nor have they recognised the problematic nature of positivist invective against the perceived irrational. This is largely because the social history of horse medicine is still very much in its infancy and the echo chamber is very much in effect. Applying this attitude to horse medicine still requires that we identify and interpret the rationalities, pathologies, and authorities which Jordanus, his copyists and audiences used and developed. None of the historians who define Jordanus's work as being devoid of magical and superstitious practices engaged with those terms in

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[364] Lynn Thorndike, *A History of Magic and Experimental Science*, 8 vols. (New York: The Macmillan Company, 1923), II. pp. 480-1, p. 984.

[365] Peregrine Horden, 'What's Wrong with Early Medieval Medicine?', *Social History of Medicine*, 24 (2011), 5–25 (p. 16); Francis B. Brévart, 'Between Medicine, Magic, and Religion: Wonder Drugs in German Medico-Pharmaceutical Treatises of the Thirteenth to Sixteenth Centuries', *Speculum*, 83 (2008), 1-57 (p. 2)

[366] Olsan, 'Charms and Prayers', 363.

[367] Horden, 'Early Medieval Medicine', 8.

[368] Gregory W. Dawes, 'The Rationality of Renaissance Magic', *Parergon*, 30 (2013), 33–58 (pp. 46–58).

any significant way and they made very little effort to explain how Jordanus or his audience understood his medicine to work; his rationality, or rationalities. Richard Kieckhefer described a simple test for evaluating rationality within a pre-modern context. Practices should have been perceived as rational within their own context if they are described as effective; that 'efficacy was shown by evidence recognised within the culture as authentic', and that its 'workings were governed by principles (of theology or of physics) that could be coherently articulated'.[369] As this chapter demonstrates, horse-magic met all of these criteria. The transmission of magical remedies and miraculous narratives shows that these methods were deemed effective; which was evidenced at the time through the medieval principles of knowledge gained through experience, and recorded testimony. Medieval horse-magic functioned according to 'coherently articulated' principles around ritual and sign – words of power, symbols and images, narratives of sacrifice, charity, and grace. Matthew Milner argued that the manipulation of these forms related to a tacit and popular understanding of contemporary Aristotelian physics – he cites the creation of magical/medicinal oats with holy water and a verbal blessing as an example of 'grace' as a transferrable property; within a 'vernacular physics'.[370]

Magical, miraculous, and other veterinary methods need to be placed into the context of the broad range of formal and informal practitioners described in Chapter 3. Briony Aitchison argued that miracles and charms reflected a lack of available practitioners and veterinary knowledge, particularly amongst people of lower status.[371] However, miracles and charms often speak to the existence of specialised occupational healers and relate to their practice. This chapter will not question the rationality of horse-care charms to medieval audiences; this is confirmed by their broad existence and frequency in animal-care texts, their transmission through a cultural network and

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[369] Richard Kieckhefer, 'The Specific Rationality of Medieval Magic', *The American Historical Review*, 99 (1994), 813–36 (p. 814).

[370] Matthew Milner, 'The Physics of Holy Oats: Vernacular Knowledge, Qualities, and Remedy in Fifteenth-Century England', *Journal of Medieval and Early Modern Studies*, 43 (2013), 219–45 (p. 237).

[371] Briony Aitchison, 'Holy Cow!: The Miraculous Cures of Animals in Late Medieval England', *European Review of History: Revue Européenne d'histoire*, 16.6 (2009), 875–92 (pp. 882–83).

adaptation to meet various audience expectations. Antonio Montinaro positioned the inclusion of apotropaic medicine in *hippiatric* translations as a dumbing-down of *hippiatric* medicine as a high-minded scientific culture by a crude process of vernacularisation. He situates this as part of the treatise's penetration into different social classes and 'the growing use of the horse by poorer classes, not for military use but for everyday activities'.[372] This is another symptom of a very narrow approach to the interpretation of the *hippiatric* tradition and the broader culture of animal-healing. Instead, this chapter considers how different forms of veterinary intervention coexisted as parts of medieval horse-medicine, questioning the primacy of 'rational', *hippiatric* care over other therapies. It investigates the development of saints as horse healers and explores the dynamics of care, emotions, and veterinary choice.

Magic and the *Hippiatric* tradition

Reintroduction, Spread, and Dissemination

Magical elements were integrated into the late-medieval *hippiatric* canon at several different levels; as marginal annotations and signs of use, as new scribal additions to older texts, and as fundamental parts of newer treatises, compilations, and remedy collections. Charms were often added to the treatises of Jordanus Ruffus and Laurentius Rusius either as scribal additions within the texts or as marginal and post-script additions made by the owners and end-users of these manuscripts. This reflects two separate processes; the mutation of didactic literature by copyists and the audience reception of these treatises, which is often a reflection of practice. One of the earliest thirteenth-century Latin witnesses of *De medicina equorum* contained a set of additional remedies including a procedure against fistula using a *pater noster*. Unfortunately, the language is not particularly clear, but this was likely used as a collection charm or to time another part of the

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[372] Montinaro, 'Per La Tradizione Del De Medicina Equorum de Giordano Ruffo (Con Un Elenco Dei Testimoni Manoscritti)', p. 37. '...alla crescente utilizzazione del cavallo da parte di ceti meno abbienti non per usi militari ma in stretto rapporto con le attività quotidiane.'

procedure.[373] The French 'marechaucie des chevaus', a fourteenth-century text that likely developed from Jordanus, includes a charm against 'le mort dou ver' involving the 'lion of Judah, rod of David, staff of Jesse, shining star of the morning' formula.[374] Some marginal notes suggest a broad range of readings; such as a mid-fourteenth century Latin copy of Jordanus that was heavily annotated with extracts from Pliny, Aristotle, and Columella on horses, as well as a charm against 'vermem' (since obliterated), and a common onomastic tool, using numerological divination to establish whether a patient will live or die.[375] A number of Latin copies of Laurentius Rusius' treatise also had charms added to them as marginal notations, such as a fourteenth-century text with a long procedure against 'de verme' invoking the biblical narrative of Job.[376] Later versions included charms incorporated within the text by the scribe, such as several early-fifteenth century copies with a large variety of charms against 'de verme'.[377] It is likely that these charms developed from marginal additions – perhaps reflective of practice or audience reception – into integrated parts of the treatise through later copying.

Charms and amulets were common components of the new texts that emerged after Jordanus in the fourteenth and fifteenth centuries. These texts often, but not always, functioned as commentaries on Jordanus and the other earlier treatises, and as methods of incorporating Classical learning or further experiential knowledge. The late-thirteenth century compilation of Jacopo Doro from northern Italy functions in this manner, as an addendum to Theodoric of Cervia. Alongside complex pharmaceutical preparations and a number of remedies involving surgery and burning, Jacopo offers eight procedures involving prayers and vocal incantations. As well as remedies for timidity, pain, and problems during foaling; half of Jacopo's charms were offered against 'de verme' and

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[373] Contra fistulam probatum experimentum in quacumque parte corporis erit. Accipe ranam viridem de pratis et collige eam .iij. pater noster et fac eam desicare ad solem et fiat in pulvis et recipiat patiens ante cibum etiam post cibum Venice, Bibl. Marciana, Lat, VII, 14 [= 3677], f. 69r

[374] Hunt, *Old French Medical Texts*, pp. 270–71.

[375] London, Wellcome Library, MS 700

[376] Florence, BML, MS Plut.77.25 ff. 50r-v

[377] London, British Library, MS Additional 22126; Vatican City, BAV, MS Urb. Lat. 1014; Modena Biblioteca Estense MS Lat. 111

'farcina'.[378] Boniface of Calabria's thirteenth-century treatise also included several charms and prayers against 'de verme'.[379] This was not restricted to texts from Italy, the anonymous fourteenth-century French *Cirurgie des Chevaux* included a charm against 'souros', debilitating bone spurs that form on the legs.[380] The mid-fifteenth century French treatise of Guillaume de Villiers included several charms, including the Sator Square, a palindromic incantation with roots in Ancient Rome.[381] The Middle English Boke of Marchalsi, from the first half of the fifteenth century also included several charms, notably a very involved procedure against farcy.[382]

Charms to deal with a variety of horse-care demands were also found in late medieval remedy collections. Compilations and remedy collections were a common mode for the transmission of veterinary knowledge in the late Middle Ages, which have been somewhat overlooked by scholarship.[383] This is likely because of the focus on Jordanus; as they are largely anonymous tracts, these collections cannot be linked to an authorial tradition. Veterinary charms and procedures often appeared within remedy collections principally concerned with human medicine but texts devoted exclusively or primarily to the cure of horses and other animals were also quite common. These were sometimes appended to *hippiatric* treatises or incorporated into commonplace books. One notable example that was distributed in Italy in the late fifteenth century identifies the date each remedy was used, the prescribing *manescal*, and the owners of each sick animal, who represented the great and the good of southern Italy.[384] This collection includes several textual amulets against 'attinge'. These texts often added charms to collations of several texts, such as a Sicilian compilation from the second half of the fifteenth century that

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[378] Venice, Marciana MS Lat.VII 25, ff. 31-34ᵛ

[379] London, BL. MS Additional 15097 40ᵛ-41

[380] Prévot and Ribémont, p. 356.

[381] Poulle-Drieux, 'L'hippiatrie Dans l'Occident Latin Du XIIIe Au XVe Siècles', pp. 119–21.

[382] Odenstedt, pp. 31–35. Odenstedt only edited one of several chapters on farcy, the rest can be found in Cambridge University Library, MS. Dd. IV 44 ff. 5ᵛ-9.

[383] One exception to this being Tony Hunt, whose editions of Anglo-Norman receptaria often include horse-medicine remedies. For example, Tony Hunt, *Popular Medicine in Thirteenth-Century England: Introduction and Texts* (Cambridge: Boydell and Brewer, 1990).

[384] Paris, BNF, MS Ital. 454

brought together material from Jordanus Ruffus, Laurentius Rusius, and the Latin translation of Ierocles' *ad Bassum*. The charms in this compilation were offered against 'lu vermi', 'la rayatura', and to stop bleeding.[385] The collection of remedies added to a 1456 Italian copy of Jordanus preserves a number of magical remedies including a complex written and verbal charm against farcy and a prayer in Latin for 'vermes' referencing Job.[386]

This all implies that charms and amulets were not just added to the written culture of horse-medicine as part of the vernacularisation of Jordanus and the broader *hippiatric* tradition nor as part of a 'popularisation' of veterinary medicine. They were more entrenched than this and if anything were conspicuous by absence from *de medicina equorum*. The reinsertion of charms into the *hippiatric* tradition should be seen as the response of an audience that expected their texts to reflect their healing culture. Charms were a part of veterinary culture long before Jordanus. The Old English *Lacnunga* contains several charms for horses that are elf-shot, or suffering from sprains, corns, or eruptions of the skin.[387] The Byzantine *hippiatrica* – an encyclopedic work compiled between the 5th-11th centuries – contained magical remedies inserted at various points by all but one of its authors.[388]

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[385] Fichera, pp. 73–74, 211–12.

[386] New Haven, Yale University Beinecke Library, MS 488, ff. 28v-38. See also; Hunt, *Popular Medicine in Thirteenth-Century England*, pp. 96–97; *Of Hawks and Horses Four Late Middle English Prose Treatises*, ed. by W.L. Braekman (Brussels: Omirel, 1986), pp. 91–104.

[387] Edward Pettit and British Library., *Anglo-Saxon remedies, charms, and prayers from British Library Ms Harley 585: the Lacnunga* (Lewiston, N.Y.: E. Mellen Press, 2001), pp. 105–7, 117. For an introduction to the complex historiography of elves and elfshot, see Alaric Hall, *Elves in Anglo-Saxon England: Matters of Belief, Health, Gender and Identity* (Woodbridge: Boydell Press, 2007), pp. 96–118.

[388] McCabe, pp. 16–17, 146–52, 185, 238. See also; Valérie Gitton-Ripoll, 'Les Pratiques Magiques Dans Le Traité de Médecine Vétérinaire de Pélagonius', in *Rationnel et Irrationnel Dans La Médecine Ancienne et Médiévale*, ed. by N. Palmieri (Saint-Étienne: Publications de l'Université de Saint-Étienne, 2003), pp. 193–214; Lynn L. Remly, 'Magic, Myth, and Medicine: The Veterinary Art in the Middle Ages (9th-15th Centuries).', in *Fifteenth-Century Studies.*, ed. by Guy Mermier R. and

Without knowing more about Jordanus' cultural influences it is nearly impossible to say why his treatise lacks any magical, cosmological, or supernatural elements. Klaus-Dietrich Fischer argued convincingly in 1999 that because of the extensive research that has already taken place on Frederick II's documentary legacy, it is likely that Jordanus will remain something of a cypher.[389] However, it is important to remember that Jordanus was not actively critical of magical or astrological medicine, he did not try to place it in the realm of the ignorant or provincial marshal and nor did he claim it as the domain of the professional practitioner.[390] When it came to magic, astrology, or the healing power of saints, Jordanus was simply silent. However, this should not be seen to unduly reflect either the texts or practices of horse-medicine. Charms were never not a part of the horse-care repertoire; they were conspicuous by absence in the three most broadly studied Latin *hippiatric* texts (Jordanus, Laurentius, Theodoric) but this was rectified by successive waves of scribes, as demonstrated in Chapter 2. Scholars of horse-medicine have unduly focused on these three authors. This, along with the dominance of a philological mode of study that has little interest in broad textual variation (beyond a desire to get back to the ur-text) has given the impression of a period of pure, scientific veterinary text-production which was then corrupted by translation, transmission, and the inclusion of supernatural nonsense. This is not reflected by the *hippiatric* tradition as a whole; charms were widely distributed and were not a tangential method of last-resort. They were ingrained within the veterinary mode, followed local variations, and were placed within charm-less treatises across the board as part of the reception of *hippiatric* writing.

Edelgard DuBrick E., - (Ann Arbor: University Microfilms International for the Medieval Institute, 1978), pp. 203–9. for early medieval Roman and Germanic horse-magic.

[389] Fischer, '"A Horse! A Horse! My Kingdom for a Horse!" Versions of Greek Horse Medicine in Medieval Italy', p. 130.

[390] For Jordanus on 'provinciales' see Chapter 3 'Who cared for horses?' above. For a medic who claimed magic as part of the physicians fiat, see Maaike van der Lugt, 'The Learned Physician as a Charismatic Healer: Urso of Salerno (Flourished End of Twelfth Century) on Incantations in Medicine, Magic, and Religion', *Bulletin of the History of Medicine*, 87 (2013), 307–46.

Common Themes and mechanisms

Horse-medicine writers sometimes reported charms from specific sources, perhaps with the intention of incorporating some degree of proof or authority for the remedies. In some instances a remedy was simply marked 'this is proven' or 'proven by the word of many marshals'.[391] Other charms had a more specific attestation such as the remedy attributed to a 'strong knight' in the thirteenth century *Practica equorum* or the remedies of 'Maistro Viniciano de Aquila.[392] Some attributions demonstrate a suggest a foreign source from a country associated with horse-care, such as the charm attributed to 'Hew Sarasyn of Spayne' by William Marshall of Merton Priory in an early fifteenth century text appended to a Boke of Marchalsi.[393] The connection with Spain speaks to an earlier argument within the Boke of Marchalsi, that because English horses are bred in the lowlands they do not make good warhorses, and that the best horses for war are bred in Spain 'for they are foaled in a high country and in hard lands'. The identification of Hew as a 'Sarasyn of Spayne' perhaps relates to the argument the Boke makes that Christian men are not good keepers of horses, in the tradition of St. Hippolytus 'the good stablemaster', except for in Hungary 'where his lineage still dwells'.[394] Hew's charm is fundamentally Christian; it involves saying the *pater noster*, offering votive candles, and its narrative is a conversation between Sts. Fermin, Peter, and Martin. Other charms were directly attributed to saints, such as the procedure to 'make a horse stand still' added to a fifteenth century copy of the Boke of Marchalsi, which was described as the charm that St. Eligius used when he first shod a horse.[395]

Horse-magic charms used many of the same themes and mechanisms as similar incantations in human medicine. These include invocations of various holy names and titles, such as the 'alabiat + araoboy + buriseru + cretropoy' formulae and the four titles

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[391] Hunt, *Popular Medicine in Thirteenth-Century England*, pp. 96–97.

[392] London, British Library, MS Additional 35179 f. 30ᵛ and Cambridge, University Library, MS Dd. IX 38 f. 266v; New Haven, Yale University Beinecke Library MS 488 f. 37.

[393] Cambridge, University Library, MS Dd. IV. 44 f. 19.

[394] 'Of þe cuntre of Spayne are the beste, for þei be folid in an heyȝe cuntre and in hard lond.' Odenstedt, pp. 15–24.

[395] Cambridge, University Library, MS Dd. IV. 44 f. 25ᵛ.

of Jesus Christ 'Lion of Juda, Root of David, Rod of Jesse, Splendid Morning Star', taken from Isaiah and Revelation.[396] They invoked the Blessed Virgin Mary, Job and various saints, notably Eligius.[397] Practitioners would make a variety of cruciform symbols and stars with their hands as well as holding iron implements over either the horse or – in the case of infectious diseases like farcy – over the whole stable.[398] A practitioner might make ligatures with written incantations and tied them around the horse's neck, leg, or tail.[399] They also fed horses oats blessed with incantations and holy water or bread upon which words of power had been written. This was particularly common for internal ailments such as worms.[400] They made amulets of metal, plants, and leather; or wrote incantations onto coins or metal tokens and then pierced the skin of the horse's forehead and sewed these talismans under the flesh.[401] One version of this procedure required that the skin be pierced with a goat's horn.[402] In England, charms also sometimes involved the ritual use of a penny, which would then be given as charity.[403]

Miraculous healing of horses

Throughout the Middle Ages, animals were commonly associated with saints. Their *vitae* and *miracula* often employed animals to demonstrate the saint's dominance over

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[396] Fichera, p. 212. London, British Library, MS Additional 22126 f. 11.

[397] Lincoln, Cathedral Library, MS 211 f. 27v; Venice, Biblioteca Marciana, MS IT, III 27 ff. 16v-17r.

[398] New Haven, Yale University Beinecke Library, MS 488, ff. 29r-30; Florence, BML, Plut. 77.25 ff. 50r-v; London, British Library, MS Sloane 3285 f. 89; Cambridge, Corpus Christi College Library, MS 297, f. 203v.

[399] New Haven, Yale University Beinecke Library, MS 488, f. 37; Vatican City, BAV, MS Reg. Lat. 1010, ff. 56r and 146;

[400] New Haven, Yale University Beinecke Library, MS 488, f. 38; London, British Library, MS Sloane 3285, ff. 90v-91.

[401] Lincoln, Cathedral Library, MS 211 ff. 27r-v; New Haven, Yale University Beinecke Library, MS 1024, f. 57; Albert Werk, *Die angebliche practica avium et equorum des Lanfrancus de Mediolano: ein Beitrag zur Geschichte der Veterinärmedizin im 14. Jahrhundert* (Danzig: A. W. Kafeman, 1909), p. 16.

[402] London, British Library, MS Additional 22126 f. 11.

[403] Cambridge, University Library MS Dd IV 44, ff. 5v-7

the wilderness and their dominion over nature, to project their kindness and mercy, or to reinforce the hierarchy of God, man, beast, and animal.[404] When a lion entered Jerome's monastery his fellow brothers fled, but he recognised that the beast was injured and cured it by removing a thorn from its paw. The lion was so grateful that it refused to leave Jerome, who put it to work guarding over the ass. This narrative echoed Aesop's fable of Androcles as well as Isaiah 11:6 'The wolf shall dwell with the lamb: and the leopard shall lie down with the kid: the calf and the lion, and the sheep shall abide together, and a little child shall lead them'. Saints' *vitae* used animals to attest to the dominant position of humans within the natural world; stories of the taming of wild beasts demonstrated the power of saints and the supremacy of man over nature. Narratives in which wild animals came to the aid of saints, such as when bears plucked out the eyes of those torturing saints Valentine and Hillary, denoted the sovereignty of man over animals and were a sign of the saints' holiness and the favour of God. In subduing the wild beast, saints reflected God's promise to Adam: that he would rule over all living animals that move upon the earth, restoring 'at least on a small scale the prelapsarian peaceful coexistence of the Garden of Eden'.[405] This attitude permeated the *hippiatric* treatises; in his prologue, Jordanus described horses as the greatest of those animals which were 'evidently created for the use of the noble man'.[406]

Scholars have tended to view animals in miracle collections and *vitae* as sites of representation, rather than approaching these texts as narratives of healthcare and healing. In his extensive 2013 *Why Can the Dead Do Such Great Things?* Robert Bartlett included a solitary paragraph on animal miracles, acting as an extremely general overview of the mechanics of animal thaumaturgy. His larger section on Saints and Animals focussed on hagiographic symbolism, didactic and biblical motifs such as the 'hunter and the hermit', and the taming of nature by saintly virtue.[407] The treatment of animal-healing

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[404] Dominic Alexander, *Saints and Animals in the Middle Ages* (Woodbridge: Boydell Press, 2008), p. 112.

[405] Joyce E. Salisbury, *The Beast within: Animals in the Middle Ages* (New York: Routledge, 1994), p. 154.

[406] *Jordanus Ruffus*, p. 1.

[407] Robert Bartlett, *Why Can the Dead Do Such Great Things?: Saints and Worshippers from the Martyrs to the Reformation* (Princeton: Princeton University Press, 2013), pp. 390–98.

miracles reflects the study of medieval veterinary care; such instances are presumed to be peculiarities of only secondary interest. Ronald Finucane believe that the need for veterinary miracles reflected the 'extraordinary rather than the ordinary pitfalls of life'.[408] More recently, Briony Aitchison has identified the importance of focussing on miracles in which the saint acted following the supplication of the animal's owner or carer. In these instances, the saint is placed 'firmly in the role of healer'.[409] As healing narratives, these miracles reflected the relationships and care dynamics between different sets of animal and healer. These were complex and differentiated according to status, wealth, and the cultural understanding of particular species. Elite horses were usually cared for by occupational carers; grooms, stable-boys, and marshals; whereas it was common for men to be represented as caring for their own falcons and hawks. The decision to seek a miraculous cure was bound up in similar questions of status, wealth, faith, and trust.

The relationships between saints and animals were underscored by the categorising of animals as wild or fit for civilised use. Isidore of Seville based his taxonomy of four-legged creatures on the separation of humans from livestock (*peci*), beasts of burden (*iumenti*), and wild beasts (*bestiae*). Isidore separated the quadrupeds – 'deer, antelopes, onagers, et cetera' – from livestock, for whilst they may appear similar, they are nevertheless not under human control and are more like the wild beast than anything yoked by man. Isidore placed the *equiferus* between these categories: the wild horse that originated in the forest and was unfit for civilisation.[410] This was the antipode of the noble horse. Saints such as Guénolé of Lendévennec, Bridget of Kildare, and Columba subverted these categories to subdue beasts: rendering wild horses and wolves quite tame.[411] Saints were also able to bestow a degree of rationality upon animals,

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[408] Ronald C. Finucane, 'Cantilupe as Thaumaturge: Pilgrims and Their Miracles', in *St Thomas Cantilupe, Bishop of Hereford: Essays in His Honour*, ed. by Meryl Jancey (Hereford: The Friends of Hereford Cathedral, 1982), pp. 137–44 (p. 143).

[409] Briony Aitchison, 'Holy Cow!', p. 876.

[410] *The Etymologies of Isidore of Seville*, trans. by Stephen A. Barney (Cambridge: Cambridge University Press, 2006), p. 249.

[411] *Acta Sanctorum,* Nov I, p. 677; *Acta Sanctorum*, Feb I, p. 122; *Acta Sanctorum*, May V. p. 335.

particularly to thwart attempted thefts and return lost beasts.[412] Saints also intervened at times when humans transgressed the natural order. Macarius of Egypt cured a woman and a girl who had been transformed into mares through incantations and 'magical phantasies'.[413] The saints' power to shift humans and animals along the natural hierarchy tended not to diminish humans, but only to elevate beasts and reinforce or return humans to rationality.

The inferior position that medieval theology placed animals in meant that they were often depicted as reverential towards the saints and their relics, such as the horse that bowed its head to venerate the relics of St. Richard.[414]. The life of Rabanus Maurus (d. 856) includes the story of Perathgarius son of Theobald, a man in the retinue of Count Gerald who, whilst travelling near to Rabanus' church at Kentibruto (Kempraten in modern Switzerland), refused to stop and see the newly installed relics of Alexander the Martyr. Whilst Perathgarius was explaining his reasons for ignoring the relics, his horse was struck by an invisible power and fixed immobile. Nothing that Perathgarius could do would urge his horse onwards and he jumped down from the animal, 'confused and greatly afraid'. The horse was an instrument allowing Alexander to demonstrate his power over nature, and it acted as an object lesson in humility. Perathgarius was acting as legate for his lord, a position of authority predicated on his mobility and sovereignty over his horse. He believed this position gave him just cause to ignore the newly translated relics of Alexander. By halting the horse, Alexander and Rabanus taught Perathgarius humility and upended his understanding of the temporal order, reminding him that God and the saints are above man and the animals.[415]

Wild animals were also common parts of martyring of early medieval saints. St. Hippolytus, who was often invoked in the later Middle Ages to cure horses, was a third-century theologian at the Church in Rome who was exiled in 235 and likely died in the

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[412] Marcus Graham Bull, *The Miracles of Our Lady of Rocamadour: Analysis and Translation* (Woodbridge: Boydell Press, 1999), p. 114.

[413] *Acta Sanctorum*, Jan I, pp. 1012-1013.

[414] *Acta Sanctorum*, April III, p. 457.

[415] *Acta Sanctorum*, Feb I, p. 514.

mines of Sardinia.[416] However, the legend that was transmitted by Prudentius had him dragged to death by wild horses.[417] In the fifteenth-century Boke of Marchalsi, Hippolytus was remembered as 'the great stablemaster' who had knowledge and mastery over horses, granted to him by God whilst he was living amongst them in the wilderness. When King Herod tried to use wild horses to quarter Hippolytus nothing could compel them to do the saint harm, not even the beating of drums and the torment of spears.[418] As the horses stood firm, Hippolytus prayed to God that their bleeding should do them no harm but should stand in the manner of medicine, and that evermore when they or their progeny are bled they should only bleed enough to do them no harm and only good. The progeny of these horses, who by the fifteenth century were thought to reside in Hungary, had learnt to bleed themselves, whenever they had need, which meant that they never suffered from farcy or founder. In this later interpretation of his martyrdom, Hippolytus was firmly placed in the position of saintly healer, and he was regularly invoked to cure horses. This shift from a hagiography that reinforces the hierarchies of the natural world, to saints who could aid in the care of animals was also apparent in the rise of more medicalised miracle narratives in the later Middle Ages.

Around the end of the eleventh century, miracle narratives were commonly recorded in which owners or carers invoked the help of saints to aid with sick, injured, or dying horses.[419] The owner would recognise the extent of the animal's condition, that all other avenues had been exhausted, and that all hope was lost. They would make a vow to the specific saint; usually offering to present a waxen image, a candle, or a coin at the saint's shrine if they would release the animal from their present condition. With the miraculous healing performed, the horse-carer would then make a pilgrimage to the shrine, to make their avowed presentation, and to give testimony of the miraculous events. Alternatively, the horse could be brought to the saint's shrine in their state of ill-

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[416] Hippolytus, *On the Apostolic Tradition*, ed. by Alistair Stewart-Sykes (Crestwood, NY: St. Vladimir's Seminary Press, 2001).

[417] *Prudentius*, trans. by Henry John Thompson (Cambridge, MA: Harvard University Press, 1953), II, pp. 305–13.

[418] Bengt Odenstedt, *The Boke of Marchalsi a 15th Century Treatise on Horse-Breeding and Veterinary Medicine: Edited from MS. Harley 6398* (Stockholm: Stockholm University, 1973), pp. 21–23.

[419] They are attested from the beginning of the eleventh century but began in earnest around 1100

health to ask for the assistance of the saint in situ and to interact with the saint's relics. These miracles differed from earlier interactions between saints and animals – such as resurrections, the return of stolen or lost animals, and the subduing of wild beasts – in that the focus is on the healing event. These narratives often detailed the specific maladies and injuries experienced by the horses and the reactions of their carers, which ranged from immediately abandoning the horse to be skinned and butchered to consulting every marshal in the local area. Unlike earlier miracles, these narratives also charted the caring and affective relationships between horses and their custodians. They also demonstrated the levels of tacit veterinary knowledge held by animal-owners, carers, onlookers, and other miracle-witnesses; and the interaction of miraculous healing with other forms of veterinary medicine. These elements set the veterinary miracle apart from earlier saint-animal interactions, placing the saint in the role of animal-healer and allowing for a more detailed examination of the miracle as a narrative of health and illness.

Saints as Veterinary Healers

In the later Middle Ages, saints were often called upon to help a broad range of animals; from noble horses and birds of prey to beasts of burden, livestock, and pets. Saints healed equids from various social strata: destriers, palfreys, and expensive *equi* as well as carthorses, rouncies, asses, and mules. Hawks and falcons were commonly the subject of healing, resurrection, and recovery miracles and were often injured whilst hunting. In contrast there were very few reports in which hunting dogs are miraculously healed, though there are several in which they injure hawks. This perhaps because lords and ladies were presented as caring for their hawks directly unlike hunting dogs who were cared for through the mediation of huntsmen. Saints were commonly called on to heal individual livestock animals or entire herds; particularly to free them from pestilence or to save the remaining one or two kine when the rest of the herd had been decimated. People also called upon the saints to heal pets: animals whose value was entirely associated with affection, and which had no other utility. Thomas Cantilupe healed a roebuck belonging to the young son of Lord Alan Plugenet and a dormouse belonging to an unnamed woman; Thomas Becket was called upon to save a starling that was being attacked by a hawk.

Late-medieval miracle collectors often commented on the healing of animals as an indication of the broader benevolence of God; who provided relief through the power

of the saints for beasts as well as people. The anonymous thirteenth-century collector of the miracles of St. Bertilia (d. 687) recounted the story of a horse which had lain half-dead for three days until it drank water from a vessel that had contained the saint's relics. The collector ascribed this to the 'true omnipotence of God, who deigns to demonstrate His power not only through rational creatures but also through brutish animals'.[420] The *miracula* of Ambrose of Sienna (d. 1286), collated shortly after the saint's death, includes two horse-care miracles, with the note that the saint's benevolence was extended to beasts of burden and those irrational creatures who have been adapted to the use of men.[421] Saints that healed animals during their lifetime would sometimes be associated with animal-cures after death.. The life of St. Gerlac the Hermit (d. c. 1170), which was compiled around 1227, noted that the saint cured not just humans afflicted by pestilence and other ailments but also cattle, cows, and horses that were brought to him. Such was his fame as a healer of animals that after he died it was a custom throughout *Germania* to give silver or other votives to Gerlac's church for the conservation of domestic animals and birds.[422]

The propensity of certain saints for healing animals was often communicated as part of the miracle narrative. The *miracula* of St Wulfran (d. 703) – compiled in the eleventh century by the monks of Fontanelle Abbey – includes the account of a nun called Advenia who encounters a young boy crying over his dead horse whilst travelling through Exmes in northern France. Having just witnessed the power of the saint – who healed her riding horse – she advised the boy to seek the aid of Wulfran.[423] Witnesses and onlookers who had connections to saints known to heal animals might also offer advice. The miracles collected in 1378 as a precursory investigation into Birgitta of Sweden (d. 1373) included the narrative of Peter Svensson of Appleby whose horse became lame whilst conveying him through Norway. The next morning, judging the horse

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[420] *Acta Sanctorum*, Jan I, p. 1116.

[421] 'Benignus Salvator hominum, qui salvationem suae virtutis extendit etiam ad iumenta, et quaeque irrationabilia ysui humano accomodata, etiam ad haec voluit extendi merita huius beati Patris', *Acta Sanctorum*, Mar III, p. 240.

[422] *Vita Gerlac*, p. 318.

[423] *Acta Sanctorum*, Mar III, p. 160-161.

to be dead, Peter ordered one of his men to skin it and keep the hide for themselves. However, the unnamed man tasked with skinning the horse lived near to Vadstena, the centre of Birgitta's cult, and knew of her miracles. Rather than killing the horse he made a vow to the Blessed Lady, to offer a waxen horse in her honour if she would restore the horse, which he now considered his property, to life.[424] Because horse-healing narratives often involved travel they made excellent vehicles for spreading knowledge of a saint and their miracles.

Not everybody was happy or comfortable with the powers of saints being called upon to heal irrational, non-human animals. The miracles attributed to St. Ithamar (d. c. 660), which were collected in the early 1140s by a monk of Rochester, included a narrative of a man who had lost all but two of his cows to a pestilence and so petitioned the saint on behalf of his remaining kine. Whilst the Rochester collector recorded that the saint successfully cured the last two cows, this occurrence troubled him, and he commented that Jesus came 'not for brute beasts, but for humans'.[425] However, when disdain or criticism was levelled at animal owners who called upon saints to heal animals this was usually included within the narrative as object lessons in a lack of faith. The twelfth-century collection of William of Norwich preserved the story of a young boy called Arthur Gresley who owned a falcon that he loved with great affection. When the bird fell ill Arthur wept as if its misfortune were his own and made a significant vow to the boy-martyr if he would free the bird from its illness. The assembled knights, including Arthur's father Robert, ridiculed the boy because they were certain the falcon would soon die and because they thought it ludicrous to pray to the saints or to make a vow for such a trivial matter. Thomas of Monmouth, William's hagiographer, framed this miracle as an instance of the greatness of God's power being demonstrated in William's compassion and care

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[424] It is unclear whether the man knew Birgitta to be a healer of animals as well as humans. There are no other animal-healing miracles in this collection though there is one in a later collection made after Birgitta's canonization that involved blood flowing from the nose of a horse, 151

[425] Rachel Koopmans, *Wonderful to Relate: Miracle Stories and Miracle Collecting in High Medieval England* (University of Pennsylvania Press, 2011), pp. 116–17. Koopmans noted that this was the earliest instance in England of a deceased saint curing an animal.

for the smallest of things.[426] William of Canterbury, one of Thomas Becket's hagiographers, also saw the healing and recovery of animals as evidence of Becket's magnanimity: the martyr was willing to grant aid to the smallest of things – in this instance a lost sparrow-hawk – as well as the largest.[427]

Other animal-care miracles attributed to Thomas Becket also mentioned critical on-lookers, but their disdain is usually misjudged. When an English noblewoman named Mabilia found that her hawk had collapsed in its cage she brought the dying animal into the house, placing it on a dove's perch and sending a votive offering to Becket. She was derided for acting in this manner as both pleading to the saint on the bird's behalf and bringing a hawk into the house were deemed peculiar and absurd. Nevertheless, when the oblation that Mabilia had sent to Canterbury arrived after sixteen days; the hawk was healed and would allow the lady to place on its jessies (*laqueos*). The early-thirteenth Icelandic Thómas Saga Erkibyskups related the story of a falconer in the diocese of Canterbury whose hawk was struck in the eye by an outstretched branch whilst chasing a bird. According to the saga, at this point Becket was 'the most renowned leech in all England', and so the falconer began the journey to Canterbury to restore his bird's lost eye. On the road he met a flock of courtly folk led by a young man; mighty and good to behold. When the young man understood the falconer's intentions he flew into a rage, saying that it was a most unchristian thing that he was attempting: 'or do you believe that the archbishop cares whether the carrion-bird has two eyes or one?'. For his impetuousness, Becket plucked out the young man's own eye shaming him through visible disfigurement, so that when he arrived at the shrine he 'wore a slouching hat covering his face and walked bowed and bent as if smitten by sorrow'. The falconer's meekness and honest humility in requesting aid for his injured bird were contrasted with the pompous bluster and courtly array of the young man and his group. The miracle's conclusion is somewhat ambiguous: the falcon and young man's eyes are switched, such that the falcon

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[426] 'Although the Lord is great in great things, he does not disdain to work in the smallest of matters', of Monmouth Thomas, *The Life and Passion of William of Norwich*, trans. by Miri Rubin (London: Penguin Classics, 2014), pp. 259–60.

[427] James Craigie Robertson, *Materials for the History of Thomas Becket, Archbishop of Canterbury (Canonized by Pope Alexander III, A.D. 1173)* (London: Longman, 1875), I, pp. 388–89.

has a man's eye and the man a bird's eye. This rendered the man alert but unable to sleep and has such a soporific effect on the falcon that he can barely be roused to fly or work.[428]

The tension over animal-healing miracles in late-twelfth and early-thirteenth century collections may relate in part to anxieties about holiness and noble animals. In the twelfth century, the practice of falconry was associated powerfully with the secular life and yet open to mystical interpretation.[429] Oppitz-Trotman argued that Becket's hagiographers used this ambiguity to reconcile some of the contradictions in his own life. In doing so, they presented an excursus on what constituted the suitable focus of saintly attention and concluded that animals were largely deserving of miraculous care. Becket's cult was particularly successful, and his miracles were part of a trend towards 'vast rambling and completely independent' collections in the late-twelfth century. One feature of this trend is the shift in focus to lay-informants who brought with them to the shrines personal tales of suffering and relief.[430] This greater focus on the lived experiences of informants would often highlight the centrality of animal health and illness to their lives along with other misfortunes and catastrophes.

By the end of the thirteenth century concerns over the boundaries between animal-care and miracles seem to have largely evaporated, as exemplified in the case of the early stages of the canonization of Thomas Cantilupe, Bishop of Hereford (d. 1282). The investigation preceding Cantilupe's canonization process may have started as early as 1282 and most of his miracles were recorded between 1287 and 1302. His collection stands out for its significant corpus of animal-care miracles: roughly 30 from a collection of over 500. The Bishop's canonization process did not start in earnest until 1307 and it took a further 13 years for Thomas to be declared a saint.[431] Although none of his animal

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[428] *Thómas Saga Erkibyskups*, pp. 140-147.

[429] Gesine Oppitz-Trotman, 'Birds, Beasts and Becket: Falconry and Hawking in the Lives and Miracles of St. Thomas Becket', *Studies in Church History*, 46 (2010), 78–88.

[430] Koopmans, pp. 115–20; Österberg argued that people would be restricted to the miracles that they could unashamedly admit to praying for 'Witnesses to Wonders: Miracles as Evidence for Medieval Mentality', in *Mentalities and Other Realities: Essays in Medieval and Early Modern Scandinavian History* (Lund: Lund University Press, 1991), pp. 36–53 (p. 52)

[431] Finucane.

miracles would appear in the final group of 38 which were sent to the papal *curia*, they bear the hallmarks of a protracted investigation and a desire to place Cantilupe – post-mortem – within his noble and royal context. In one miracle, a suspicious clerk of Lord Reginald de Grey who was sent to Hereford to investigate the veracity of Thomas' miracles is halted in his journey when his horse becomes lame. The previously healthy horse would not put another foot forward and the ministrations of marshals were unsuccessful. It was only when the 'lord of the horse' bent a penny in honour of Cantilupe that he could proceed on with his journey, his faith in the power of Thomas and the veracity of his miracles having been affirmed.[432]

Other animal miracles in Cantilupe's collection involved the households of local lords such as Roger and Edmund Mortimer, Robert de Ros, and Gilbert de Clare; and officials of King Edward I including John de Lacey and Peter Mallory: the king's chief justice.[433] Cantilupe came from a noble, Norman family; he was well educated, powerful, and a leading supporter of Simon de Montfort in his rebellion against Henry III, acting as chancellor in 1265. However, he also rose highly in the government of Henry's son Edward I; he was appointed regent in the king's absence in 1279. Cantilupe's miracle compilers were not interested in interrogating the validity of saintly invocation as a mode of animal-care. Instead, they were trying to reinforce the connections between Cantilupe, the Marcher lords, and the royal court to support his case for canonization and boost the fame of Hereford as a pilgrimage site. Highlighting the cures of noble animals was a very effective way of achieving these goals, particularly because lords would often make pilgrimages to the shrine as a courtly procession, with their entire household. Roger Mortimer came with his house to Hereford on the Feast of the Invention of the Cross (3rd May) in 1290, to give thanks for the recovery of one of Roger's falcons, which had been struck in the head with a stone and lost an eye.[434] Animal-cures were useful to particular cults that sought to support noble connections and they were also a key way of demonstrating the poverty and humility of low-status supplicants. This meant that by the

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[432] *Thomas Cantilupe*, p. 694

[433] *Thomas Cantilupe*, pp. 671, 673, 685, 719.

[434] This is almost certainly Roger Mortimer of Chirk, rather than his nephew Roger, the third Baron Mortimer who was born in 1287.

middle of the thirteenth century *miracula* often included animal-healing narratives with little of the discomfort and criticism of earlier collections.

Miracles, Status, and Emotion

The motivations for seeking miraculous aid often related to the types of animals being cured and their networks of care. For owners of low-status horses – as well as beasts of burden and livestock – poverty was often the principle motivation for seeking a miraculous cure. This was either deepened or brought to a crisis-point by the animal becoming sick or injured. The miracles of Louis of Toulouse (d. 1297) include the narrative of a donkey belonging to Johannes de Lauch of the burgh of St. Claire in Marseilles, which was struck in the eye and blinded. Johannes was distressed because without the beast he was unable to earn a living; he was a pauper and had practically nothing apart from that donkey. Another of Louis' miracles centred on a rouncy – low-status work horse – belonging to Raymond and Ugueta Pauli, also of St. Claire. When the rouncey began to suffer so greatly in its leg that it was unable to walk, their reaction related to the horse's centrality to their way of life. Ugueta, knowing that without the rouncey they had nothing in the world, was unable to sleep and spent the night wailing, moaning, and pleading with Louis to heal their horse.[435] She also knew that Louis had the power to heal her horse because he had previously delivered her from a fever and so she turned directly to the saint. There was also a reciprocal relationship between illness, poverty, and the care of animals. When a 'woman of Windsor' lost her cows to a pestilence, she suffered so greatly that she was unable to feed her last cow and turned to St. Bartholomew for aid.[436] These proclamations of poverty demonstrated the centrality of the animals to the supplicants' lives as well as their humility and faith. By presenting supplicants as both impoverished and humble, miracle compilers placed these individuals within the 'deserving poor', precisely because they wished to maintain their ability to sustain themselves and their families. Their animals are an extension of their labour and keep them from absolute poverty. This was reflected in the humble, affective, and often quite protracted supplications, such as Ugueta's sleepless night.

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[435] *Louis of Toulouse*, pp. 292 and 328.

[436] *Bartholomew*, p. 28.

Emotion and affect were also strong motivators for miracle-seeking, though these fell largely along lines demarcated by gender and status; as well as the species of the sick or injured animal. Miracle narrators rarely presented noblemen and the keepers of high-status horses as having an emotional relationship with their animals, except when this related to their masculine or martial attributes.[437] On the other hand; women, children, and people of low status regularly spoke of affection and love as part of their rationale for seeking miraculous cures for the injuries and illnesses of their animals, which they themselves experienced as traumatic events. When the donkey of Stephanus Mainerii, a gardener in Marseilles, fell badly and broke its right leg, Stephanus' wife Hugua was the one to seek aid. She saw the pitiful condition of the donkey that she loved dearly and, being unable to aid the animal herself, made a vow to Louis of Toulouse.[438] When an unnamed knight in the miracles of Thomas Cantilupe crushed a dormouse, having been ignorant of its presence, and flung it forcefully into a door, the beast's owner is distraught:

> [She] had raised the little beast and promised an oblation to the Servant of
> God in a tremulous voice, if he would deign to return to life through the
> power of the Lord this beast which she held in great regard. And with this
> she placed the little beast, which she believed to be dead, in her lap.

Another of Cantilupe's miracles describes a roebuck belonging to the son of Alan Plugenet that fell from the walls of a castle. The boy loved the buck dearly, having raised it diligently for some time. This care is viscerally contrasted with the horrific wounds of the deer, which had shattered one of its legs and crushed its entrails, such that blood erupted from its anus.[439] The collection of Our Lady of Rocamadour includes the narrative of a women named Almodis and the starling that she had spent three years nurturing, because it gave her joy by singing and dancing. When the bird was lost, she became indescribably upset, 'as if she were present at the funeral of one of her own

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[437] It was extremely uncommon for noblemen to look after high-status horses themselves, this was delegated to occupational carers. This was reflected in miracle narratives in which the supplicants for elite horses were almost never the animal's owner. See 'Who cared for horses?' in Chapter 3, above.

[438] *Louis of Toulouse*, p. 306.

[439] *Thomas Cantilupe*, p. 654 and 675.

children'. Seeking miraculous cures for animals could be part of a long-term care relationship based in affection and love. However, this was often governed by ideas about gender, status, and perceptions around particular animals.

Miracle collectors usually presented men – and particularly those of high-status – as seeking cures for their animals because they valued their strength, power, or utility. In the miracles of Our Lady of Rocamadour, Duke Matthew of Lorraine lost a hawk which he loved because of its strength. The hawk fell into swirling waters whilst chasing a duck and one of his knights struck the raptor a deadly wound to the head with his sword whilst trying to retrieve it. Duke Matthew flew into an extreme rage before calming himself and promising a silver bird to the Lady if she saw fit to save his bird's life. Matthew's furious reaction was at the misdeeds of his knight and his affection for the animal was accorded to its strength and power.[440]

Elite animals were not necessarily even cared for directly by their owners. Falcons and hawks were usually presented in miracle narratives as being under the sole care of their noble owners, but horses – even warhorses and palfreys – were usually under the care of occupational custodians. When these horses became sick or injured and in need of miraculous assistance, the supplicant was usually not their owner. When the owners did take part in the narrative it was usually in an ancillary or ceremonial role such as when the Countess of Gloucester's 'pursif' palfrey was washed by her squire in the font of Simon de Montfort at Evesham. The compiler is careful in this case to say that the horse's head and face were washed 'in the presence of the said countess' and not by her.[441] Perhaps the physical care of the horse was beneath the dignity of the Countess. For noble animal-owners, miraculous cures offered the opportunity for a courtly procession in the form of a pilgrimage. When a falcon belonging to Lord Peter Mallory – Edward I's chief justice – was raised from the dead by Thomas Cantilupe, the lord brought most of his household with him to Hereford, to making an offering and vow to the saint. The nature of the bird and its relationship with Mallory were all occluded in the account; any sense

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[440] *Our Lady of Rocamadour*, p. 187.

[441] Pursif is a pulmonary condition, sometimes incautiously translated as asthma. *Simon de Montfort*, pp. 68-9.

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of Peter's emotional reaction is muted whilst the proper ritual of courtly obeisance is foregrounded.[442]

Miracle narratives often presented adult men as exhibiting a sanguine detachment from the suffering of their horses. When the horse belonging to Peter Svensson in the collection of Birgitta of Sweden collapsed whilst he was travelling through Norway, its owner ordered it to be slaughtered and skinned after only a brief examination.[443] Narratives featuring elite horses were particularly lacking in pathos and were often reduced to an unemotional recitation of events. For instance, from the collection of Thomas Cantilupe:

> It also occurred that a certain costly horse – which people refer to as a
> destrier – was led to the tomb of the Servant of God. It had become blind
> as well as having painful infirmities in its shins and feet. Upon arriving it was
> immediately healed, to the great amazement of those looking on.[444]

The narrative omits almost any detail of the horse, its owner, or caretakers and the reader is left to infer details about its condition and its experience of care. The horse is described as 'costly' and named a 'destrier', which identifies its owner as noble, male, wealthy, and almost certainly a knight. The horse's level of impairment – being blind and suffering chronic pain in its legs – suggests long-term care but the narrative contains no affective display from the animal's custodian, either of sadness or relief at its remission.

This lack of concern is in rather strong conflict with many of the relationships between knights and their horses that were presented by contemporary literature. Bestiaries described a strong and emotive relationship, in which the horse bonded to a single master and became unmanageable if they changed hands. The horses of ancient heroes were used to exemplify this intimate and faithful interaction, such as Bucephalus who would suffer no rider other than Alexander, and the horse of King Nicomedes,

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[442] *Thomas Cantilupe*, p. 679

[443] *Birgitta of Sweden*, p. 151.

[444] 'Item contigit, quod quidam equus pretiosus, quem dexterinum vocant, ad Servi Dei tumulum est adductus; qui tam a caecitate, quae ei mirabiliter supervenerat, quam ab infirmitate gravi, quam habuit in tibia & in pede, ibidem subito, multis mirantibus, est sanatus', *Thomas Cantilupe*, p. 654.

which starved itself to death after its master was slain. Bestiaries related that the fealty between horses and their owners was such that the mounts would weep for their fallen masters. This was possible because of the horse's peculiar status: of all non-human animals, only horses feel sorrow.[445] Why did the suffering of elite horses in healing narratives only rarely cause parallel sorrow in their custodians? This was not just because they had a more 'robust, no-nonsense' attitude towards animals, nor simply because death and dying were more common experiences.[446] It may have been the result of the distant relationship between the owner and their horse, which was usually cared for by a third party and it may also have been bound up with concerns around noble men, the expression of emotions, and unaddressed melancholy.[447]

Other equids were more likely to provoke an emotional response than noble horses, suggesting that relationships and social expectations were peculiar to the specific type of animal involved. The eleventh-century miracles of St. Foy, whose relics were held at the Abbey Church of Conques in Rouergue in southern France, include an account of the resurrection of a mule belonging to an unnamed Poitevin warrior who was 'distinguished both in his lineage and in his military prowess'. The warrior was travelling on a pilgrimage to Rome when the mule, which he cherished, fell seriously ill and was laid down in the stable of an inn. On the advice of his travelling companion who was a man of Rouergue, the knight pledged a Byzantine coin to St. Foy, but the martyr 'kept back her hand for the greater glory of her own power' and in the morning the mule was found dead. Eager to continue his journey, the Poitevin warrior sold the mule's hide to the

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[445] Richard W Barber, *Bestiary: Being an English Version of the Bodleian Library, Oxford, M.S. Bodley 764, with All the Original Miniatures Reproduced in Facsimile* (Woodbridge: Boydell, 1993), pp. 102–3.

[446] Roy Porter, 'Animals, Medicine, and Society: Historical Perspectives', in *Animal Doctor: Birds and Beasts in Medical History*, ed. by Ken Arnold (London: Wellcome Trust, 1994), pp. 4–10 (p. 7); Rebecca F. McNamara and Una McIlvenna, 'Medieval and Early Modern Emotional Responses to Death and Dying', *Parergon: Journal of the Australian and New Zealand Association for Medieval and Early Modern Studies*, 31.2 (2014), 1–10 (p. 2).

[447] Ortrun Riha, 'Emotionen in Mittelalterlicher Anthropologie, Naturkunde Und Medizin', *Das Mittelalter: Perspektiven Mediävistischer Forschung*, 14 (2009), 12–27; Iona McCleery, 'Both "Illness and Temptation of the Enemy": Melancholy, the Medieval Patient and the Writings of King Duarte of Portugal (r. 1433-38)', *Journal of Medieval Iberian Studies*, 1 (2009), 163–78.

innkeeper and left it to be skinned. As the pilgrims journeyed onwards they were full of sorrow for the mule, particularly because St. Foy seemed to have forsaken them. The Poitevin was identified according to the social expectations of the martial class: he was of noble blood and had achieved military renown, and yet he was not as constrained in his displays of emotion as the other knightly horse-owners and custodians mentioned here.

The collection of St. Foy has a particular sense of whimsy and the tendency of its first curator Bernard of Angers to emphasise unusual miracles – such as animal resurrections – persisted in the books compiled after he died. However, even here status appears to have played a role in the presentation of suffering. In a second resurrection miracle presented alongside the Poitevin mule's narrative, a little donkey belonging to an impoverished man in the village of Conques became seriously ill and was clearly close to death. The man, who was a lay-brother at the Abbey Church of St. Foy, expressed familiar fears: the donkey was his only protection against poverty and its death would be his ruin. His prayers at the tomb of the saint were described as ineffective whispers and futile murmurs. When the donkey finally died he 'cried out to the whole church that this would be his ruin'. His tone and register reflected his febrile and emotionally uncontrolled state: he admonished St. Foy 'in a whining voice', flitting between soothing blandishments and scolding words of blame. He protested at the unfairness of his situation, asking why Foy had abandoned him, even though she watched over the great palaces of the wealthy. Unlike the Poitevin mule, the little donkey did not escape being partially skinned and when it is finally resurrected the hide hangs from its hooves 'displaying the sign of its death'.[448] The resurrection of the Poitevin warrior's mule stands out as one of the few miracle narratives in which elite men grieve openly about the death of an animal, and show affection towards it, without this affection being bound up with the animal's economic value or martial characteristics.

This could reflect the specific 'animality' of mules and donkeys; cruder and less refined beasts than the warhorse. Albertus Magnus described the donkey as an industrious

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[448] Pamela Sheingorn and Robert L. A. Clark, *The Book of Sainte Foy* (Philadelphia: University of Pennsylvania Press, 1995), pp. 207–10.

if somewhat belligerent creature.[449] The donkey's bones were rendered stronger and dryer by the preponderance of black bile in their bodies, meaning that they could carry a great load on their back and shoulders once they had been properly reined. Their melancholic complexion also made their hide thick and tough, so that if they wished to eat or rut then they could scarcely be dissuaded by strong blows from a whip. Their earthly, dry, and cold complexion rendered them almost insensate and meant that they could barely be trained and were always scraggy and thin. The donkey was an altogether crude beast, whose ugliness, laziness, and obstinacy were all dictated by its melancholic complexion. This placed it in contrast to the horse – and particularly the noble horse – which was hot but temperate in nature. The horse's positive qualities – its speed, docility, and courage – were all evidence of it its complexion.[450] In any case, status still played a role in the St Foy compiler's presentation of supplication and grief. Although the Poitevin warrior was allowed to exhibit pathos, the compiler reserved a more harrowing treatment for the impoverished lay-brother, who was barely controlled in his grief and whose donkey suffered at the skinner's blade.

Miracles, charms, and the dynamics of choice and care

Miraculous cures and charms were part of a broad range of healing options available to animal-owners; the decision to employ one over another was influenced by many dynamics including status, local custom, and the nature of the condition or illness. Veterinary choice was linked to the networks of care surrounding different animals; whether an animal was cared for by its owner or by one or more occupational practitioners. The decision to use a particular veterinary method related closely to the nature of the illness: with some conditions being particularly associated with miracles, charms, or other remedies. Medieval horses (and their carers) faced a broad range of health and bodily dangers: from physical impairment, disfigurement, and behavioural disorders to lethal digestive illnesses, and contagious diseases that could destroy a herd. These conditions did not equally attract different veterinary approaches; some acute and chronic conditions were more commonly associated with miracles or charms, whilst

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[449] *Albertus Magnus*, pp. 1357-1358.

[450] *Laurentius Rusius*, p. 6

others (such as the behavioural dysfunction *restivus*) evoked a battery of different methods. So, why would a horse-carer select one method over another and is it possible to identify why they expected different mechanisms of care to work? Were charms, miracles, and physical remedies part of the same medical and intellectual framework and what rational mechanisms – if any – were horse-carers drawing upon when they voiced a charm, performed a bleeding, or measured a horse to a saint? What influenced the horse-carer's decision to select between these different but not intractable authorities?

One of the principal considerations in selecting a cure was the nature of the condition or illness being treated. Miraculous cures only reflected a small proportion of the illnesses and injuries a horse-owner might face. Jordanus Ruffus presented around sixty chapters of 'accidents, infirmities, and wounds' in his treatise; organised, broadly speaking, from head to toe.[451] Jordanus was particularly interested in internal illnesses, lesions of the back and lumbar, and infirmities of the feet and legs. Laurentius Rusius expanded Jordanus' catalogue to around 134 chapters, including material from the *Practica equorum* and Theodoric of Cervia's treatise.[452] This expansion notably included remedies for animal bites, methods for controlling behavioural issues, and cosmetic procedures.[453] Miracle narratives covered only a small proportion of the conditions for which *hippiatric* writers offered remedies.

The compilers of miracles did not always note the specific ailment being treated, nor give much in the way of detail. They often noted simply that animals were stricken with 'a dire and sudden pestilence', 'a savage mortal pestilence', or 'a tremendous and unusual sickness'.[454] This was sufficient to demonstrate the severity of the situation and the dismay of the animal-carers. When further details were given of the illness or when it was necessary to present veterinary experience and knowledge, this was usually done by witnesses to the miracle rather than the compiler themselves. The animal's condition and dire prognosis might be judged by its carer, by 'all present', or occasionally by one or

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[451] *Jordanus Ruffus*, pp. 117-121.

[452] *Laurentius Rusius*, pp. 438-446.

[453] *Laurentius Rusius*, pp. 376-402, 424.

[454] *Bartholomew*, pp. 26-27; *Godric*, p. 460; *Henry VI* 1.6.

more marshals.[455] A detailed medical assessment of the sick animal was not a prerequisite of a miracle narrative; a judgement that the animal was beyond help, which was itself a presentation of tacit knowledge, was often sufficient.

The named or recognisable conditions that saints were called upon to cure fell into relatively clear categories. These include sudden, unexplainable, and mortal illnesses; such as when Thomas Cantilupe was called upon to heal a palfrey belonging to the Abbot of Gloucester that had lain down as if dead for four hours. Henry, the prior of Hereford, entreated St. Wulfstan when one of his two prized oxen 'which were fat and of pleasant appearance', collapsed. The ox had been afflicted with an enormous tumour that could 'barely be contained within its skin', its breathing was laboured, and it seemed moments from asphyxiation.[456] These sudden infirmities were a reminder that even healthy, high-status animals, that were tended to assiduously by privileged owners could be stricken without warning.

Animal-carers often sought miraculous intervention in the case of accidental injuries; particularly what we might deem 'industrial accidents'. These could be ascribed to negligence, such as when a groom tore off part of the tongue of a horse belonging to the master of Bridgewater Hospital, in the miracles of Thomas Cantilupe. The horse's tongue had become tangled in its bridle (or more likely its bit) and the groom, in his panicked urgency to extricate it, violently ripped out more than half of the animal's tongue.[457] The bridle and bit were essential parts of the horse's industrial apparatus, necessary to make the horse fit for its intended purpose.[458] Jordanus discussed the bit at length and horse-care writers commonly added large collections of diagrams of ever more complex bits to their treatises, as demonstrations of their ingenuity.[459] An aggressive and somewhat fanciful curb bit (with cheek pieces attached to two sets of reins) in the

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[455] *Henry VI* 1.6; *Thomas Cantilupe,* pp. 674-675; *Louis of Toulouse,* p. 289.

[456] *Thomas Cantilupe*, p. 666; *Wulfstan*, pp. 151-52.

[457] *Thomas Cantilupe*, p. 670

[458] Susan Crane considers this formation of man, technology, and beast in terms of cyborg theory in 'Chivalry and the Pre/Postmodern', *Postmedieval: A Journal of Medieval Cultural Studies*, 2.1 (2011), 69–87.

[459] For example, in London, Wellcome Library, MS 706 ff. 73-129ᵛ.

1532 edition of Laurentius Rusius, was identified as being for 'a horse that should be called the devil' and was adorned with dragon heads.[460] (58) The safe and secure placement of the bit by an experienced groom was a vital part of the horse's occupational routine and a miracle like this reflected the danger posed to the horse by negligence, and the potential for harm within the animal's daily life. The tasks that medieval huntsmen and horse riders expected their animals to perform also had the potential for accidents and injuries. The miracles of Our Lady of Rocamadour recount the narrative of Duke Matthew of Lorraine, whose beloved hawk was nearly lost when it chased a duck into treacherous waters.[461] A knight by the name of Robert Keynes called on Thomas Cantilupe to heal his hawk, which had been attacked so viciously by a dog that one of its wing had been torn in two. Robert judged that the hawk would either die or be forever useless. Cantilupe's miracles records four hawks and falcons which were injured or killed whilst on the wing and six which were dying of an unknown infirmity or old age.[462] This reflected the fondness for hawking of the aristocratic class that Cantilupe's supporters were trying to attract and was perhaps an extension of the example set by Thomas Becket's hagiographers.[463] It also represents the anxiety that a cherished, expensive animal could be lost to some misfortune or hazard.

Horse-carers also used a variety of other therapies in response to accidental wounds; particularly to deal with occupational injuries. A fifteenth-century Sicilian treatise based on Laurentius Rusius offered several charms for accidents that might occur whilst a horse is being shod. These remedies for related the horse's injuries to the wounds of Christ as well as the figure of Christ as healer. The first remedy for 'alla chiovatura o puntura dello cavallo' – to be pierced with a nail or otherwise wounded – instructs the reader to say three pater nosters and three ave marias before washing and anointing the horse's wounds, just as Christ healed the injured by washing and anointing their wounds. The second remedy was specifically for 'inchiovato', which in this instance has the specific

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[460] *Hippiatria sive Marescalia Laurentii Rusii ad Nicolaum sancti Hadriani diaconum Cardinalem* (Basel: Christanum Wechelum, 1532), p. 58.

[461] See note 440, above.

[462] *Thomas Cantilupe*, pp. 655, 662, 671, 674-5, 682, 685, 694.

[463] Note 429, above.

meaning of a shoeing that has gone awry. It instructed the horse-carer to invoke Nicodemus 'who removed the nails from the feet and hands of our Lord Jesus Christ' and say five pater nosters, at which point the horse will be cured.[464] The implication is that the horse-carer should reflect on Nicodemus removing the nails from Christ whilst removing the inexpertly hammered – and now damage-causing – nails from the horse's hoof.

Treating injuries such as these would often cause additional problems; cutting into the hoof and foot or excising an ulcer had the potential to provoke heavy and dangerous blood-flow. Jordanus advised that *anticuorus* – an aposteme or 'worm' on the horse's chest near to the heart – should be removed in its entirety, noting that because of the ulcer's location this must be performed with the utmost care. If a vein is severed Jordanus instructed his reader to grasp the head of the vessel firmly whilst stitching it tightly with silk thread. If this is not possible he offered several recipes for plasters to be admitted into the wound and left for three days. Later treatise writers supplemented these methods with charms for staunching blood-flow, intended either as an alternative or complimentary therapy. A fifteenth-century Sicilian translation of Jordanus Ruffus incorporated into its section on *anticori* a selection of charms against worms, and both powders and a charm intended to stop bleeding.[465]

As well as bleeding, many remedies would have caused the horse a great deal of pain and anxiety, making the healing encounter potentially quite hazardous for all concerned. As a response to this problem, Theodoric of Cervia offered a remedy in his treatise for facilitating surgery or marshalcy on a 'furious' horse. This prescription of two or three ounces of 'iusquiami' (henbane) given to the horse with its oats would make the horse feel nothing and appear as if dead for a whole day.[466] Horse-carers also used magic to reduce a horse's pain, such as a procedure from the *Practica equorum* that instructed the reader to write the names of one of the rivers of Eden on each of the

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[464] The proemium erroneously attributes the treatise to Hippocrates and Galen but it is actually more of a vastly abbreviated translation of Laurentius Rusius. New Haven, Yale University Beinecke Library, MS 917 f. 47ᵛ.

[465] Fichera, pp. 211–12.

[466] *Theodoric of Cervia*, III, p. 44

horse's feet with a needle or an awl: 'Gyon on the right, Phison on another, Tigris on another, and Euphrates on another'.[467]

Jordanus described several ailments that were likely to afflict a horse whilst it was being ridden, including 'attinctus', serious inflammation of the ligaments caused when a horse strikes its foreleg with one of its rear hooves.[468] All of these remedies presumed that the rider has dismounted and the horse was being cared for somewhere relatively secure and controllable, they do not deal with the immediate problem of an injured horse in pain. If a horse injured its foot whilst it was being ridden it could become uncontrollable or fall; seriously injuring itself and its rider. The *Practica equorum* provided horse-riders a charm to deal with such an occurrence, when a horse wounded one hoof with another, whilst they are still in the saddle. The collection instructed its reader to speak these words 'from on top [of the horse] ...vil heil vias diu selbe heile stunde gesseue dise vainde'. This remedy was provided by a knight who faithfully advised that it was effective against all wounds of men and animals.[469] The utility to a knight – or anybody who rode regularly rode a horse – of a few words intended to calm or cure a wounded mount seems obvious, and the healing interaction that it suggests between the horse and its rider is one that is conspicuously absent from high-status miracle narratives.

Horse-carers were concerned not only with physical ailments, but also feared losing their animals to lameness, wildness, or *furiosa* – furious madness. Either condition was an annulment of the dominion that the carer held over their horse: the animal should labour without complaint, remaining subservient and meek, and be cared for in return. Lameness was the outward expression of pain and resistance to labour and it rendered a horse useless to its carer, regardless of the animal's occupation or status. However, miracles did not necessarily focus on the animal's experience of lameness; more often it was used as a vehicle for a moral narrative or to demonstrate a point of crisis in the owner's life. In miracle stories lameness was usually acute and not chronic. When the

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[467] 'Ad dolorem equi scribe in quatuor pedibus in dextro gyon in alio phisou in alio tygris et in alio eufraten cum acu vel subutula', London, British Library MS Additional 35179, f. 30ᵛ

[468] *Jordanus Ruffus*, p. 76.

[469] London, British Library, MS Additional 35179, f. 30. The charm is in a very garbled Middle German, likely degraded in transmission.

horse belonging to a clerk of Lord Reginald de Grey became lame in the miracles of Thomas Cantilupe, the horse had previously been healthy but now could scarcely place its foot on the ground.[470] The miracles of St. Vicinius of Sarsina include the story of Honestus, deacon of the church of Ravenna whose horse became lame in one of its feet whilst conveying the deacon to Rome. Honestus could not compel the horse to take another step forward even with blows from his whip and along with his travelling companions the deacon laboured in vain to drag the fettered horse onwards. Only when Honestus promised a candle to St. Vicinius the size of his own body every remaining year of his life was the horse returned to health.[471] When Honestus abandoned this promise after the third year his horse died whilst he held its reins in his hands. These two narratives are both reminiscent of the miracle of Perathgarius, whose horse was rendered immobile by the power of Alexander the Martyr.[472] The clerk, Honestus, and Perathgarius each demonstrate a lack of conviction in the power and sanctity of the saints and are in need of rehabilitation. The horses acted as agents for this amendment, refusing to go any further until their riders have recognised their errors. These recalcitrant beasts evoke the tale of Balaam's Ass: the equid granted second sight and speech in order to upend the hierarchy of man and beast, to save Balaam from death at the hands of an angel, and to remind him to speak only the words of God's.[473] This presentation of lameness as a corrective mechanism tends to elide any sense of pain, suffering, or behavioural tension from the experience of the horse. Honestus' narrative is free of any indication of suffering as a cause of lameness, saying merely that the horse was limping or lame (*claudicare*). The clerk's narrative also lacks clear descriptions of the horse's pain or condition, saying only that it was barely placing its foot on the ground. Both narratives ignore the possibility of persistent pain and suffering and treat the horse's condition as acute and not part of a longer-term illness.[474] This allows the remonstration of the riders

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[470] *Thomas Cantilupe*, p. 694

[471] *Vicinius of Sarsina*, p. 193

[472] See note 435, above.

[473] Numbers 22:21-41

[474] For more on non-verbal representations of equine pain and suffering see the section on 'Pain, Care and Behavioural Control' in Chapter 6 below.

to be clearly asserted: the horse's lameness comes suddenly, and its meaning cannot be in doubt.

For other supplicants, lameness was a more prosaic consequence of a horse's working life. Raymound and Ugueta Pauli's rouncey was likely lame due to work – and perhaps overwork. Jordanus Ruffus blamed lameness on mismanagement: poor diet and immoderate labour created superfluous humours or blood, which drain through the legs and into the hooves or feet, causing pain and limping.[475] Jordanus' description of the various forms and causes of lameness is based on a clear and methodical knowledge of the types of limping and signs of pain and suffering. Raymond and Ugueta would likely have had an intimate understanding of their horse's pain, which is borne out in the description of its condition. Their horse is not just limping, it is suffering so much in its leg that it is unable to walk (*passus fuit in tibia in tantum quod ambulare non poterat*).[476] The horse's pain was also reflected in its carers' suffering; particularly Ugueta who stayed up all night wailing and moaning; pleading with St. Louis.

Wildness and behavioural disorder functioned similarly to lameness, in that they represented the breakdown of implicit dominion the horse-user has over their animal. One of the earliest saintly/beastly motifs involved the saint subduing the wild beast, often when it had strayed from the wilderness into civilization. This pattern persisted into the later Middle Ages and beyond, but with the wilderness subsumed into the domesticated horse's hidden propensity for wildness. The cult of St. Rosalia – a twelfth century hermit – saw a revival in 1624 during an outbreak of plague in Palermo. Rosalia appeared first to a sick woman and then to huntsman, ordering him to find her bones on Mount Pellegrino and bring them to Palermo. After the translation of her relics, Rosalia was credited with many miracles a significant proportion involving pestilence and fevers. Amongst these is the narrative of a three-year-old girl called Antonia, who was playing in the street and was about to be run down by an unbridled horse. Antonia's mother, seeing that her child would surely be run over, prayed to Rosalia who immediately halted the horse.[477] The miracle compiler refers to the horse first as unbridled ('infrenatus'), a

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[475] Mismanagement and overwork are dealt with in more detail in Chapter 6.

[476] *Louis of Toulouse*, p. 292.

[477] *Rosalia*, pp. 382-383, 398.

byword for wildness or a state of non-domestication, and secondly as furious or frenzied ('furiosus'). The term 'furiosus' was one of the potential categories of legally and medically-understood intellectual disability in the Middle Ages, meaning a state of maddened and uncontrollable anger.[478]

Later miracles also medicalised the taming of wild horses, presenting narratives in which an owner or carer is faced with an aberrantly ferocious horse that places them or their loved ones in danger and nullifies the usefulness and training of the animal. This shifts the focus of the narrative, placing the saint 'firmly in the role of healer'.[479] In the miracles of Raymond of Peñafort (a Catalan theologian who died in 1275), the wife of a knight called Bernard of Bayona seeks to heal one of her husband's horses of its ferocity ('ferocitate'). The horse was deemed so wild or untamed ('indomitum') and ferocious that it could barely by bridled without great exertion and danger. The visual marker of its wildness (its unbridled state) is also the description of its behavioural failing: it cannot be bridled, rendering it useless to its owner as a riding horse. The miracles of Thomas Cantilupe record the narrative of John de Lacey, a clerk to King Edward I of England, who had an expensive horse that 'raged with such insanity that no bridle was able to restrain it, nor by any chain could it be detained'.[480] In this instance, the inability to restrain the horse with any bridle demonstrates that without proper (and maintained) training and conditioning the technology of riding is useless and therefore the 'expensive horse' was devalued in its uncontrolled and unbridled state.

To the *hippiatric* writer, an untamed horse was either the animal in its initial state or an acquired condition; when the horse had slipped the bonds of domestication.[481] Miracle narratives that described the taming of 'wild' horses used several overlapping

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[478] Margaret Trenchard-Smith, 'Insanity, Exculpation and Disempowerment in Byzantine Law', in *Madness in Medieval Law and Custom*, ed. by Wendy J. Turner (Leiden: Brill, 2010), pp. 39–55 (pp. 41–43).

[479] Briony Aitchison, 'Holy Cow!: The Miraculous Cures of Animals in Late Medieval England', *European Review of History: Revue Européenne D'histoire*, 16.6 (2009), 875–92 (p. 876).

[480] 'quod circa tempus praedictum equum quemdam habuerat pretiosum, qui tanta caepit insania furere, quod nullo freno potuit refrenari seu vinculo solito detineri' *Thomas Cantilupe*, p. 684.

[481] Domestication and wildness are treated in more detail in Chapters 5 and 6.

categories for the animal's manner and its behavioural disorder. Ferocity, a state of untamed-ness, an inability to be bridled and the state of being unbridled; and the medically-understood states of frenzy and insanity were all applied to wild horses. Horse-medicine treatises also medicalised undesirable equine behaviour; Laurentius Rusius prescribed remedies against horses that were afflicted with frenzy ('furioso') and mania ('maniam'), which were also thought of as forms of mental disorder. The confluence of these categories allowed miracle narrators to describe the horse's condition in a manner that would relate to domestication as well as medicine, rendering the animal both wild and insane.

We might expect sudden and radical shifts in a horse's behaviour to have been interpreted in terms of demonic possession as frenzy and mania were often explained through diabolical and demonic interference in the Middle Ages.[482] A demon would enter the body and manipulate the humours to cause hallucinations, producing the effects of madness and frenzy.[483] This helped to explain the sufferer's (sometimes extreme) deviation from social norms and hierarchies, and their aggressive and violent behaviour. Laurentius Rusius advised that a horse that was seen to bite or lash out was becoming maniacal or frenzied; and in the same section of his treatise he offered a remedy for a horse that eats feathers.[484] These symptoms correlate, broadly speaking, with the descriptions of demoniacs – biting those around them, tearing at their faces, and eating mud and stones – so we might expect observers to have given a similar explanation for the two conditions.[485] Perhaps it is the categorical difference between sufferers that signals why miracle compilers shied away from the demonic as an explanation for mania in horses. These behaviours when seen in humans were deemed severe deviations from a person's inherent rationality. For all their nobility, breeding, and acclimation to human

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[482] See for instance, L. Smoller, 'A Case of Demonic Possession in Fifteenth-Century Brittany: Perrin Hervé and the Nascent Cult of Vincent Ferrer', in *Voices from the Bench: The Narratives of Lesser Folk in Medieval Trials*, ed. by Michael Goodich (New York: Palgrave, 2006), pp. 149–76.

[483] Nancy Caciola, *Discerning Spirits: Divine and Demonic Possession in the Middle Ages* (Ithaca, N.Y: Cornell University Press, 2003), pp. 31–78.

[484] *Laurentius Rusius*, pp. 376-378, 380.

[485] Sara Katajala-Peltomaa, 'Diabolical Rage? Children, Violence, and Demonic Possession in the Late Middle Ages', *Journal of Family History*, 41 (2016), 236–54 (p. 242).

society; horses were still fundamentally irrational creatures and therefore a breakdown in their behaviour could not be explained as a shift away from rationality.

Later *hippiatric* treatises and horse-medicine collections often offered a variety of charms and other remedies for behavioural disorders. Marshals and treatises-writers offered advice on dealing with a broad array of behaviours deemed problematic and undesirable. Some of these issues related to dangerous or hazardous behaviour, whilst others were more a matter of the aesthetic, moralistic, or socially prescribed expectations placed on horses.[486] Horse-carers had a variety of methods for dealing with behavioural issues: including pharmaceutical, surgical, and behavioural therapies. A fourteenth-century horse-medicine collection erroneously attributed to Hippocrates offered advice on 'morbum alienatum', an illness that rendered animals insensate so that they are unable to perceive a human approaching them. Provided the illness was treated swiftly it could be cured by bleeding the animal from its neck and feeding it a draught made of comfrey, hyssop, absinthe, and germander.[487] Marshals often added procedures to *hippiatric* texts drawn from their own knowledge or experience that would aid in the daily care and maintenance of horses. An anonymous remedy collection added to an Italian translation of Laurentius Rusius from around 1400 included roughly twenty-five 'belle sperientie', medicines, and remedies for several physical and behavioural problems. The collection instructed that if a horse could not be shod you should remove a pound of its blood, making sure that you do act when the moon is growing, nor that you are visible to any moon. Then you should write this twice: 'Yoth. Evath Sabaoth el. R. E and when the beast is humble and silent enough to be shod, touch the tip of its ears with a stick dipped in its blood'.[488] Given the centrality of the blood to this charm, it is reasonable that the words, which were derived from the names for God, were to be written in the horse's

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[486] For a broader discussion of pathologised horse behaviour see Chapter 6, the section on Pain, Care, and Behavioural Control.

[487] 'Si velociter medicina succureris hac ratione sanatur de cervice sanguine detrahes pocionem componis hoc modo anagalici libra I ysopi libra I croci unciae III absincii unciae stringui unciae IIII...' Vatican BAV MS Reg. Lat. 1010 f. 223ᵛ. This remedy seems to have been drawn from Vegetius' *Mulomedicina*, which allows us to argue that 'stringui' is likely a misreading of 'trixaginis'. *Vegetius*, pp. 177-179.

[488] New Haven, Yale University Beinecke Library, MS 917, f. 47.

blood. It was important to be aware of the movement and interaction of the moon –
along with the other celestial bodies – before undertaking a bleeding or performing other
medical activities because of the effect of these objects on the patient's body, its
members, and humours.[489]

Acute and Contagious Illnesses

Charms were brought to bear in response to a broad array of illnesses and
ailments, which reflected the variety of challenges faced by horse-carers, as well as the
expectations of horse-users of various stripes. Most horse-carers needed their animals to
retain mobility and industrial functionality, but specific behavioural and aesthetic
concerns were more common to elite horses. However, one illness is almost ubiquitous
in the traditions of late-medieval horse medicine and seems to have been a persistent
concern for marshals and horse-users: the disease called farcy or *de verme.* This was one
of the first ailments dealt with by Jordanus in his treatise, it is an almost omnipresent
element of later horse-medicine remedy collections. Remedies for farcy or the worm were
some of the most common additions made by users to horse-medicine texts and these
diseases also account for a significant proportion of the charms and talismans recorded
by late medieval horse-doctors. Farcy was one of several contagious diseases discussed
by *hippiatric* writers in particularly cautious and worrisome tones, as these were often
thought practically incurable. Chroniclers sometimes recorded epizootic outbreaks: these
events could decimate herds and halt armies.[490] They also influenced the development of

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[489] See, for instance Hilary Carey, 'Astrological Medicine and the Medieval English Folded
Almanac', *Social History of Medicine*, 17.3 (2004), 345–63.

[490] Carroll Gillmor, 'The 791 Equine Epidemic and Its Impact on Charlemagne's Army', in *Journal
of Medieval Military History*, ed. by Kelly Devries and Clifford J. Rogers (Boydell & Brewer, 2005),
III, 23–45. Studies of epizootic disease in medieval Europe have tended to focus on bovine
outbreaks associated with the 'late medieval crises' and increasingly also with early-medieval
ecological crises. For instance: Philip Slavin, 'The Fifth Rider of the Apocalypse: The Great Cattle
Plague in England and Wales and Its Economic Consequences, 1319-1350', in *Le Interazioni Fra
Economia e Ambiente Biologic Nell'Europa Preindustriale, Secc. XIII - XVIII/ Economic and Biological
Interactions in Pre-Industrial Europe from the 13th to 18th Centuries*, ed. by Simonetta Cavaciocchi
(Florence: Firenze University Press, 2010), pp. 165–80; Timothy P. Newfield, 'Livestock Plagues

the *hippiatric* tradition and were part of the horse-doctor's social memory. Laurentius Rusius described an outbreak in Rome in 1300 of a fever – 'which some call quinsy (*squinancia*)' – that killed over a thousand horses. Laurentius lost more than fifty of his own herd before devising a remedy of wine or *aqua vitae* (ethanol) distilled three times which reduced the patient's fever, allowing them to eat and giving them some chance of recovery.[491] Oliverius, the stablemaster to Ferdinand I of Naples (1423 – 1494), recorded in his treatise that a great many horses were afflicted in the unseasonably cold and wet spring of 1415 with 'strangles (*stranguilina*), which is known locally as quinsy'.[492]

Charms against farcy and 'the worm' are common to the entire spread of the *hippiatric* tradition: mechanisms, motifs, and themes seem to have been transmitted and translated as texts from Sicily to England share similar features. The presentation of this disease as a worm, burrowing under the surface and destroying the body, lent itself to association with the story of Job who was assaulted by worms and other calamities. Charms against farcy or 'the worm' often employed Job's narrative as a source of power and consolation. Job prayed that his suffering be reduced, and the worms slowly abated. English charms often presented this as a counting formula: 'St Job had nine worms that grieved him much' and each time he prayed one worm was removed.[493] Charms against farcy invoked many other saints and biblical figures, notably St. Hippolytus and the Holy Trinity. They also commonly feature references to the resurrection notably a formula, relating to the book of Isaiah, calling death 'the worm that was conquered by the Lion of the House of Judah, the Root of David, the Rod of Joshua, the Shining Star of the Morning'.[494] Alluding to the resurrection likely offered comfort to the horse's carer in the

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in Late Antiquity, with a Disassembling of the Bovine Panzootic of A.D. 376-386', *Journal of Roman Archaeology*, 30 (2017), 490-508.

[491] *Laurentius Rusius*, p. 400.

[492] Oliverius' treatise is only preserved in a single fragmentary witness and it is not clear whether he observed this outbreak himself. Basel, Universitätsbibliothek, MS D III 34, f. 239v

[493] Cambridge, University Library, MS Dd IV 44, ff. 6v

[494] This invocation is found in London, Wellcome Library MS 546 f. 88r in Anglo-Norman as well as several Latin and Sicilian examples: London, British Library, MS Harley 3535 f. 36v; Florence, Biblioteca Riccardiana, MS 2394 f. 49v; Venice, Biblioteca Marciana, MS Ital. III 27, ff. 16v-17r

face of a devastating illness with occult origins that worked beneath the skin out of plain sight.

Charms also took the form of collection incantations, in which the carer had to search for or prepare a specific medicament at a given time (usually at night) and whilst reciting a charm or prayer. For instance, one of the earliest extant witnesses to Jordanus Ruffus' treatise from around 1275, contains a remedy for fistula instructing the reader to 'take a green frog from the meadows and collect it (with) three pater nosters. Dry it out in the sun, grind it into powder and give this to the patient before meals and after meals'.[495] A remedy against 'the worm or farcy' in Jacopo Doro's late-thirteenth century horse-medicine compilation instructs the reader to 'search for the golden herb that is called *pulpedo* after the sun has set and before the sun rises. Collect it whilst saying the Lord's Prayer [but] when it is time to say, 'but deliver us from evil', say the name of the one you wish to be healed'.[496] The herb was then tied around the horse with another Prayer between sunset and sunrise. The *pater noster* was also used as a way of timing pharmaceutical activities – mixing, boiling etc – but in these instances, it clearly has a more apotropaic function. Naming the horse in the Lord's Prayer implores God to extend his protection to the beast, recognising that animals are suitable candidates for divine care. The Lord's Prayer was a useful device for the lay horse-carer as its application was usually deemed licit. Thomas of Chobham, writing in 1215, stated that it is not permitted to use 'incantations when collecting medicinal herbs, *unless* it is only with the Divine Creed or the Lord's Prayer, so that only God is honoured'.[497]Attitudes towards magic and charming amongst both medics and religious scholars were somewhat ambiguous during the late Middle Ages, often reflecting anxieties around the application of magical and religious power but horse-carers seem to have broadly deemed the use of charms licit.[498] The variety and prevalence of charms against farcy and other contagions is probably

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[495] Venice, Biblioteca Marciana, MS Lat. VII 24, f. 69ʳ

[496] Venice, Biblioteca Marciana, MS Lat. VII 25 (3472) f. 31ᵛ.

[497] Thomas of Chobham, *Summa confessorum*, ed. by F. Broomfield (Louvain: Editions Nauwelaerts, 1968), p. 477.

[498] Catherine Rider, 'Medical Magic and the Church in Thirteenth-Century England', *Social History of Medicine*, 24 (2011), 92–107.

explained by the devastating and somewhat hopeless progression of these illnesses. Horse-medicine writers understood these ailments to be passed between herd-members at an alarming rate and passed between species, through bites or smells.[499] Charms for farcy, such as in the *Boke of Marchalsi*, often involved regular and repeated rituals – sunrise and sunset for three days – allowing for a program of observation and care. They also offered comfort to the animal's owner by relating to narratives of Christian redemption and resurrection.

Status, Poverty, and Choice

The relative wealth or poverty of horse-carers likely played a part in dictating or circumscribing veterinary choice. The wealthy potentially had greater access to occupational horse-carers, and to *hippiatric* texts that were ostensibly intended for the military aristocracy. Affluent religious houses often owned horse-care treatises and employed several marshals and other horse-carers. However, the horse-owner's environment also influenced their level of choice. The wide spectrum of wealth-levels attained by Parisian *marechaux* suggests that urban horse-owners of almost all social levels would have had access to 'professional' horse-carers of one kind or another. The fact that charms existed in *hippiatric* literature largely as scribal and end-user additions to texts, and their performative nature suggests that these existed principally as an oral culture, available to marshals and likely also to other horse-carers and owners. Miraculous cures were also available across the social spectrum, although the experience of a miracle seems to have been significantly influenced by wealth and status. Impoverished supplicants often had to suffer for their miracles, with elongated periods of weeping and sleepless nights spent in prayer.

Wealth and status also influenced the trajectory of illness and the point at which a miraculous cure was likely to be sought. For cure-seekers who were in a state of poverty, their animals would often be closely linked to their subsistence, meaning that supplication was an act of urgency. Their miracles were often related to acute conditions or illnesses,

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[499] *Albertus Magnus* discussed both strangles (pp. 1386-7) and farcy (pp. 1389-1390) as highly communicable. The *Boke of Marchalsi* advised that farcy was transmitted through the scent of an afflicted horse or by smelling a sow in oestrus or a boar. Odenstedt, pp. 31–32.

such as in the case of Johannes de Lauch of St. Clare near Marseilles, whose donkey was struck in the eye and blinded.[500] Without the donkey he would be unable to earn a living and so his need was immediate and very pressing. Non-elite equids who were struck by acute illnesses were usually not afforded long-term care according to miracle narratives. Owners would often assess their horse to be incurable almost immediately and make the decision to slaughter and skin the animal.[501] This would have presented its own problems as horse-meat could not usually be sold openly, though it could of course be eaten *in extremis*.[502]

The provision of long term care was usually – though not exclusively – the preserve of higher-status and elite horses, who were often cared for over longer periods in response to chronic illnesses and impairments. A horse belonging to William of Stanton, 'called Hemp-Weaver' had been blind in both eyes for some time before it was cured by Thomas Cantilupe. William would have been of artisanal status, but his relative wealth is unclear. It might be evidence of relative poverty that his supplication took place away from the shrine. In cases of long-term illness and impairment it was more common for elite supplicants to lead their animals to the saint's tomb. Therefore, we can suggest that this is an instance of a blind horse belonging to a person of moderate means, which still retained value and was cared for.

Long-term care of animals prior to a miraculous intervention was certainly more common amongst high-status horse-owners. A palfrey belonging to Lord Robert de Ros laid down as if dead for seven days before being measured to Thomas Cantilupe and returning immediately to health.[503] The implication here is that the horse was permitted to lie stricken with some unknown illness or condition for a week, whilst being observed, cared for and presumably encouraged to eat and drink. Another palfrey, belonging to the Countess of Gloucester, had suffered from '*asmaticum*, which is called *porsif* in French', for two years before being taken to the shrine of Simon de Montfort and cured. The

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[500] *Louis of Toulouse*, p. 328

[501] *Thomas Cantilupe*, p. 690; *Stanislow of Cracow*, pp. 259-260; *James Salomoni*, p. 465.

[502] Kristopher Poole, 'Horses for Courses? Religious Change and Dietary Shifts in Anglo-Saxon England', *Oxford Journal of Archaeology*, 32 (2013), 319–33.

[503] 'quasi mortuus', *Thomas Cantilupe*, p. 655

Boke of Marchalsi specifically counsels against buying a 'pursyf' horse to use as a palfrey and advises that the illness can only be treated easily in its early stages. Jordanus Ruffus's description of *pulsivus*, a similar pulmonary condition, also noted that the illness was practically incurable beyond its early presentation. A 'pursyf' horse's breathing was severely restricted; it would have struggled to function as a riding horse and its condition – wheezing loudly and with flared beating nostrils – would have rendered it ugly and largely unsuitable as a palfrey.[504] Therefore, it is interesting that it received care for two years before being led to Evesham and washed at Simon's shrine. The miracle narrative gives us no sense of what degree of care was provided to the palfrey, but Jordanus and the Boke of Marchalsi each advised a different concoction to be administered orally using a cow's horn whilst the horse's head is held at a near vertical angle. Jordanus prescribed a 'hot draught' made of cloves, ginger, galangal, cardamom, *nuceria charvina*, cumin, hay seeds, white wine and saffron all mixed with a similar quantity of egg yolks. The Boke of Marchalsi advised a more prosaic and cheaper confection of eggs and vinegar. The afflicted horse was to be held with its head in the air for an hour before being led gently by hand for a few steps or ridden briefly. Whatever care the Countess' palfrey received for pursiveness, it is likely to have involved a significant investment of time and resources for a horse that might otherwise have been slaughtered or sold surreptitiously.

Conclusion

Magical, miraculous, and mundane therapies coexisted and comingled in medieval horse-medicine. The appropriate places in the progression of an illness for different therapies would depend on the nature of the condition and the status of the horse and owner. Broadly speaking, charms were usually prescribed from the outset of an illness with greater or lesser cooperation between other medical methods. Whereas, horse-carers employed miraculous supplications at various points in the progress of a condition: some at the onset of an acute illness, others after an animal had dealt with a chronic impairment for some time. Miracle narrative usually noted the insufficiency of other means, this was necessary for a miracle to be 'contra-naturam' but ignores the questions of piety and the

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[504] See the section on 'Desideratum' in Chapter 5 for a discussion of desired characteristics and pulchritude in horses

dynamics of status and choice that lead to cure-seeking. Healing narratives often noted that no other recourse remained to the cure-seeker or that no other remedy had been tried.[505] High-status horses had often received long-term care for chronic illness or impairment before the owners sought a miraculous cure, whereas low-status and impoverished horse-owners might seek a miraculous cure in the first instance because they had no other recourse.

Marshals were often cited in miracle narratives as either witnesses or veterinary advisors. Of the eight equid miracles in the collection of Louis of Toulouse, four involve marshals at some point in the narrative. A rouncey belonging to Guillelmus that was most gravely ill was seen by 'almost all of the marshals in Marseille' who all tell Guillelmus 'as if with one voice' that nothing can be done. Several of the marshals must have stayed with Guillelmus as he made his supplication to Louis, as three of them bore witness to the miracle. When Rychan's palfrey was struck by a most grave illness he called out all the marshals of Marseille, none of whom were able to offer any remedy. Sometimes a supplicant would bypass the marshal altogether, such as Magister Manent the surgeon whose rouncey suffered from an unknown affliction that rendered it insensate and sprawled out on the ground as if dead. Manent called for a marshal but then recalled the miracles that Christ performs for animals through St Louis and made a vow of a waxen rouncey instead. Horse-carers themselves would seek miraculous interventions, such as Guillelmus marshal to the King of Sicily, who was unable to cure his horse of an unnamed affliction, 'even though he was a doctor of horses, with all of his knowledge and medicine'.[506] Marshalls provided both magical and religious care themselves, when they transmitted and offered charms, and when they turned to the saints as part of their duties.[507] As this chapter has demonstrated, marshals often used the images and narratives of specific saints within their therapies; invoking Eligius, Hypolitus, and Job. The motifs and mechanisms used in miracles, charms, and other medical procedures also commonly overlapped. The oats blessed with a *pater noster* and an *ave* for Saint Hippolytus in fifteenth-century Middle English 'medicines for al evelis of hors' are reflected in the miracles of

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[505] *Thomas Cantilupe*, p. 694; *Henry VI*, 1.6, 4.144.

[506] *Louis of Toulouse*, pp. 277-278, 289, 300, 309.

[507] Picard, p. 95 n. 1.

Magnus of Füssen. When a farmer discovers his newly purchased horse is afflicted with *phagadena* – flesh-eating ulcers – he takes it to the shrine of Magnus, but is barred entry by the prior, presumably because of the condition of his horse. He finally convinces the monks to show mercy and they bring out hay 'that had previously touched the relics of St. Magnus and whey that had been purified through prayer'.[508]

Charms and miracles functioned alongside physical and pharmaceutical remedies. They were connected to ideas around *empirica* and *experimentum* and were accepted as licit methods by at least some horse-medicine practitioners, just as some medics considered charms to be within their purview.[509] Charms are found in all strata of horse-medicine texts, from remedy collections to the most high-status illustrated texts likely intended for display – notably a fifteenth-century Boniface of Calabria that included a charm alongside a miniature of Job blessing a horse most grievously afflicted with 'verme'.[510]

To return to the initial quandary of this chapter, it is difficult to say why Jordanus overlooked charms and miracles, he is not actually critical of these therapies they just did not form part of his text. However, they were part of the expectations of his audience. Charms, miracles, and physical remedies shared semiotic and functional similarities within medieval horse-medicine. They were part of a broad set of healing options that were influenced by status, wealth, and location; and crossed species boundaries. Animal-owners who were healed through miracles themselves would often seek miraculous cures for their animals; charms and other remedies were commonly marked 'for animals and humans', particularly in the case of contagious diseases like farcy. Far from being an insular culture, isolated from the superstitions of contemporary medicine, medieval horse-care engaged fully with religious and magical therapies, through its texts and practice. To understand the social implications of horse-care, the actions of its practitioners and the experiences of its patients, we have to consider it as a holistic,

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[508] 'avenam attactu prius reliquiarum S. Magni et sacra precatione lustratam afferunt', *Magnus of Füssen*, p. 760.

[509] Rider, pp. 92–93; Lea T. Olsan, 'Charms and Prayers in Medieval Medical Theory and Practice', *Social History of Medicine*, 16 (2003), 343–66.

[510] Vatican City, BAV, MS Vat. Lat. 7228, f. 42

pluralistic medicine, that drew upon doctrines of simultaneous and commingled doctrines of nature, magic, and the faith.

Chapter 5: Horse Care and Developmental Medicine

Introduction

Scholars have traditionally separated Jordanus' treatise into two parts, the *hippological* (breeding, training etc.) and *hippiatric* (medicine) sections.[511] This made a degree of sense, as Jordanus was the first western writer to treat these two subjects together, perhaps influenced by Frederick II's *de venandi cum avibus*. However, with d*e medicina equorum* Jordanus presented not just a set of remedies or a discourse on equine pathology, but a fully formed schema for breeding, training, and managing a noble horse. As such, the *hippological* and *hippiatric* sections of his treatise should not be read separately, but in concert with each other. With his disquisitions on breeding, nutrition, housing, and other aspects necessary to maintain a noble herd, Jordanus developed the foundation for the *hippiatric* tradition's broad discourse on horses. Far from being simple remedy collections, the *hippiatric* treatises represent holistic discussions of horse-care from breeding to old-age. The scholarly focus on pathology and remedy has overshadowed the complex *hippiatric* discourses on breeding and generation, domestication and behavioural control, impairment and disability, or non-human pain and suffering.

The final section of this thesis is formed of two connected chapters that consider these and other aspects of the *hippiatric* tradition as part of a discussion of the horse as a subject of care and as a non-human 'patient'. Chapter Five will consider the *hippiatric* horse as a domesticated, managed animal that was bred, shaped, and trained from a foal; transforming an ambiguous entity into a civilised horse. It explores the *hippiatric* life-course from selection and breeding to senectitude and death and demonstrates how Jordanus and the other *hippiatrics* advised a horse should be bred, raised, and trained based on ideas of function and nobility. It compares theoretical concepts with actual breeding and management practices. The medieval horse was primarily an industrial animal, defined by its work, and whose bodily maintenance reflected its labours. This chapter sets out some of the tensions inherent in the *hippiatric* tradition between labour and bodily care, which can be identified using an occupational health paradigm.

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[511] See, for instance, Montinaro, *La tradizione del De medicina equorum di Giordano Ruffo*.

Chapters Five and Six follow one of the central arguments of my thesis, that attitudes towards medicine (and science more broadly) in the Middle Ages transcended species boundaries. Medieval veterinary care was founded on the same principles as human medical care and functioned using largely the same structures and practices. Therefore, the focus of *hippiatric* care - the horse - should be analysed and interpreted using traditions and methodologies drawn from the study of premodern human medicine. This principally includes the study of the clinical encounter, the medical marketplace or other pluralistic dynamics, and the representation or social construction of the 'patient'. This last concept, which is the focus of Chapter Six, has often been founded on ideas of agency and articulacy, which can privilege humans and even exclude non-human sufferers. Roy Porter's seminal article on 'The Patient's View' focussed not just on articulacy but literacy as the core component of a patient-focussed historical methodology.[512] Of course, this focus excludes not just animals from the field, but also many other less-literate or underrepresented groups, such as children, disabled people, slaves, and people of low status. By taking inspiration from the study of these groups, and from the developing field of Critical Animal Studies, this chapter will try to circumvent this methodological restriction. It will consider the representation by *hippiatric* texts and medical narratives of the health and wellbeing of horses, as well as asking whether horses enacted patient agency through the articulation of suffering and lameness.

These final chapters explore the variety of ways in which *hippiatric* texts discussed the health and illness of horses. Recent approaches to the history of medicine have broadened the study of health-related topics to include diet and regimen, public health and wellbeing, cosmetics, and aesthetic management.[513] This mirrors the concerns

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[512] Porter, 'The Patient's View'.

[513] For food, diet and regimen see Melitta Weiss Adamson, *Food in Medieval Times* (Westport, CT: Greenwood Press, 2004) and Marilyn Nicoud, *Les régimes de santé au Moyen Âge: naissance et diffusion d'une écriture médicale, XIIIe-XVe siècle* (Rome: École française de Rome, 2007). The 'healthscaping' model for analysing premodern public and urban health has had a significant influence on this chapter, particularly as concerns surrounding animals feature quite heavily in Geltner's project, G. Geltner, 'Healthscaping a Medieval City: Lucca's Curia Viarum and the Future of Public Health History', *Urban History*, 40.03 (2013), 395–415. For cosmetics see Luke Demaitre, 'Skin and the City: Cosmetic Medicine as an Urban Concern', in *Between Text and Patient: The Medical Enterprise*

presented by Jordanus and the later *hippiatric* writers who developed in his stead. The *hippiatric* texts were concerned not just with illnesses and remedies, but also with breeding and generation, housing and nutrition, domestication and training, cosmetics, and behavioural control. As such, this section draws on material and methodologies from a wide spectrum of health-related disciplines to discuss the construction of the *hippiatric* horse as a specific entity. The representation, concerns, and expectations surrounding horses in *hippiatric* texts expanded beyond health or the treatment of illness.

Taxonomy, Status, and Occupational Health

This chapter will begin by discussing the relationship between the taxonomical construction of horses in the later Middle Ages and the occupational expectations placed upon them. Jordanus and the other Latin *hippiatric* writers almost always refer to their patients as *equi* ('horses'). Other healing narratives used a variety of terms to clarify the position, status, worth (and value), occupation, and even to construct the health and illnesses of the horse. Status and occupation are inferred by terms such as *palfredus* or *runcinus.* Lower status is associated with *summarius* or *averus.*[514] Health expectations and concerns will often follow these constructions.[515] Occupationally, high status riding horses, particularly those identified as *palfredus* and sometimes *runcinus* were defined by

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in Medieval & Early Modern Europe, ed. by Florence Eliza Glaze and Brian K. Nance, Micrologus Library, 39 (Firenze: SISMEL/Edizioni del Galluzzo, 2011), pp. 97–120; for one intersection of cosmetics and animals see Isabel Betlloch Mas and others, 'The Use of Animals in Medicine of Latin Tradition: Study of the Tresor de Beutat, a Medieval Treatise Devoted to Female Cosmetics', *The Journal of Ethnobiology and Traditional Medicine*, 121 (2014).

[514] John Langdon, *Horses, Oxen and Technological Innovation: The Use of Draught Animals in English Farming from 1066-1500* (Cambridge University Press, 2002), pp. 294-95.

[515] Work dealing with occupational health in the middle ages is quite sparse, but see Angela Montford, 'Fit to Preach and Pray: Considerations of Occupational Health in the Mendicant Orders', *Studies in Church History*, 37 (2002), 95–106; Julie Kerr, 'Health and Safety in the Medieval Monasteries of Britain', *History*, 93.309 (2008), 3–19 and; Carole Rawcliffe, 'Health and Safety at Work in Late Medieval East Anglia', in *Medieval East Anglia*, ed. by Christopher Harper-Bill (Woodbridge: Boydell, 2005), pp. 130–52.

walking, being ridden.[516] Their owners were concerned with lameness, with sudden death, and unexplainable or incurable illness, especially when problems regarding supervision and third-party carers were implied. The palfrey belonging to the Abbot of Gloucester, which in 1288 lay as if dead for four hours before being miraculously healed by Thomas Cantilupe, speaks to the fear of unexplainable illness, and the loss of an expensive animal.[517] Lameness, particularly during long or socially important journeys was a common theme in illness narratives.[518] Aesthetics also formed a key part of the value of high status horses. William, the marshal to the king of Sicily, was described in the miracles of Louis of Toulouse (canonised 1317) as having an *equus* that was very beautiful and terribly infirm.[519] Jordanus gave detailed instructions on recognising 'the beauty of a horse's body' by its shape, size and conformation.[520] Colour was given particular importance by both *hippiatric* and zoological writers and methods were offered by later *hippiatric* texts for bleaching a dark horse white. It is not surprising that disfigurement was often part of horse illness narratives.

Health concerns for lower status horses were also often constructed around their occupational duties. They frequently became ill during work, or in a way that precluded them from work. For example, the *iumentum*, bought by a farmer in a miracle of Magnus of Füssen from around 1500, only came to be revealed as suffering from *phagadena,* an incurable skin ailment, when it began to work.[521] Carthorses frequently collapsed in miracle narratives whilst working, speaking to concerns about labour illness and raising questions amongst their caregivers as to methods of healing.[522] Commonly in these narratives the owner will immediately give up and make preparations to skin the horse,

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[516] See, for instance, Albertus Magnus's description of the four categories of domesticated horses in *On Animals: A Medieval Summa Zoologica*, trans. by Kenneth F Kitchell and Irven Michael Resnick, 2 vols (Baltimore: Johns Hopkins University Press, 1999), II, p. 1478. See the four categories of domesticated horses in *Albertus Magnus*, p. 1378.

[517] *Thomas Cantilupe*, p. 666.

[518] See for instance, *Birgitta of Sweden*, pp. 835-836; and *Thomas Cantilupe,* p. 694.

[519] *Louis of Toulouse*, p. 309.

[520] *Jordanus Ruffus*, pp. 17-18.

[521] *Magnus of Füssen*, p. 760.

[522] *Magnus of Füssen*, p. 761; *Stanislow of Cracow*, pp. 259-60; *Bogmilian the Hermit*, p. 353.

only to be convinced to seek assistance from the saint as thaumaturge.[523] This decision cannot have been made lightly, as many healing narratives make clear the illness and death of a low status horse (or other equid) could have dire implications for its owner, compromising their ability to sustain themselves and their family.[524] These concerns are mirrored in *hippiatric* texts. Although they ostensibly deal with high status animals - particularly the earlier texts, which more closely follow Jordanus - the *hippiatric* tradition speaks often of the close association between excessive or inadvisable labour and illness in horses. This includes not just riding (*equitatio*) but also other forms of labour and the carrying of loads (*labore* and *onus*). This is unsurprising, as even the noble stable would have contained not just riding horses, but cart- and packhorses as well. Although many elements of *hippiatric* medicine - behavioural control and vices particularly - would have had more specific resonance to the riding horse, back lesions, leg, foot, and joint ailments (which form the majority of Jordanus' medical sections) had more universal relevance. Whilst there were practitioners whose specific occupational identity suggests they dealt only with the ridden horse - the *palefredarius* or palfreyman in particular - broadly speaking marshals are likely to have had a more general practice.

Vices and behavioural defects of high status horses are a common part of illness and healing narratives. The schooling methods of the *hippiatric* tradition were intended to remove, or at least diminish, these behavioural problems. The texts following Jordanus' lead also offered remedies and other material focussing on combating perceived behavioural dysfunction. They also feature often in miracle and historical narratives that deal with *dextrarius*, *palfredus* and other high-status or noble horses. The collection of Raymond of Peñafort (d. 1275) includes the miraculous healing of a horse belonging to a knight, Bernardus de Bayona, which was so wild and ferocious that nothing short of extreme labour and a dangerous bridle could control it.[525] Bernardus' wife promised an oblation to Raymond, perhaps in fear of the very real danger that the horse posed to her husband. The choice of descriptor - *indomitum*, undomesticated or wild - speaks to the dichotomy of wild and tame horses, and the (in this instance failed) process of domestication which the *hippiatric* schemas presented. Wild and domesticated horses are

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[523] For instance, *Thomas Cantilupe*. p. 690.

[524] Good examples can be found in *Louis of Toulouse*, pp. 292 and 328.

[525] *Raymond of Peñafort*, p. 427

both present as concepts within the *hippiatric* tradition and within illness and healing narratives. The Jordanus tradition is a method of taking a horse deemed wild; one that lived in a herd, away from human contact, which was physically developing but behaviourally unsound, and developing it into a useful animal. A horse that, as Isidore, and then later Vincent of Beauvais etc. suggested, could be used in the city, in a civilised environment). Because horses can revert to wildness through retrograde behaviour, horse-care incorporated methods for behavioural control, which reinforced and supported the construction of the civilised horse, forming the major part of its adolescent life stage.

Selection, Breeding, and Generation

The *hippiatric* life-course

The horse presented by Jordanus' treatise, which formed the basis for the patient or sufferer presented by the later *hippiatric* tradition, was constructed quite specifically and only represents a small fraction of the medieval horses who could be interpreted as non-human patients. The principal focus of Jordanus' treatise was the male horse, although he does briefly discuss nutrition for pregnant and nursing mares. Jordanus exclusively used the masculine forms for his patient, and his discourse on schooling, illness, and remedies was structured around male equine physiology and behaviours coded as male. The *hippiatric* horse was also not castrated.[526] Jordanus' horse was bred and then housed during its infancy within a maternal group. It spent an adolescent period of a year or more with a wild bachelor herd, feeding and roaming at liberty, whilst it developed physically. It was then recaptured and schooled, normalising interactions with humans, occupational behaviours, and being included within a structure of behavioural control. This period marked the transition between adolescence and a form of occupational quasi-adulthood, though one which lacked many of the privileges, rights, and expectations of human adulthood. This created, at least within the confines of this theoretical treatise, a structured, regimented life-course. Roberta Gilchrist described the sociological model of the life course as a continuum, stressing the interlinkages between different phases of

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[526] This will be developed in more detail later in the chapter.

life.[527] In the *hippiatric* context, life-stages were quite rigidly defined, marked by significant shifts in the expectations placed upon horses, their material experiences. The transitions between life stages could be violent and painful. However, each stage in the life of the hippiatric horse, as defined by Jordanus, was linked to the others.

The horse body aged both biologically and socially. The young body was perceived as partially formed and wild with a potential for rebellion or to be ruined through poor treatment. The 'adult' horse body formed through natural maturation and a process of breaking and domestication. The horse was trained to adhere to behavioural standards and its body was physically conditioned to maximise its industrial potential (whether its labour was menial or noble). Discussion of horses post- and peri-mortem are quite difficult to find. Healing narratives described horses being skinned and the hippiatric texts discuss signs that a horse is beyond assistance, but there is no discussion of euthanasia. The distinct stages of this course each have implications for the health, behaviour, and social construction of the horse; which transits not just from infancy to maturity, but from wildness to domestication. However, stages could elide and impact upon each other. The domestication process, begun in the horse's early years, was never truly complete. When a horse deviated from its imposed behavioural norms it was treated as a rebellious juvenile, often repeating modes of correction used during the breaking process.

Overview

The development of the noble horse, the *desideratum* at the centre of the *hippiatric* treatises, began with breeding. Jordanus Ruffus (d. 1256) provided instructions for recognising a beautiful horse along with advice on heritable defects and illness, which needed to be managed and examined for with the utmost diligence.[528] These concepts were developed by Theodoric of Cervia (writing after 1266) and Laurentius Rusius (first

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[527] Roberta Gilchrist, *Medieval Life: Archaeology and the Life Course* (Woodbridge: Boydell, 2012). pp.1-2. See also, Karl Ulrich Mayer, 'New Directions in Life Course Research', *Annual Review of Sociology*, 35 (2009), 413–33. and for the life cycle approach, in which each stage is studied as a unique and somewhat more isolated experience: Deborah Youngs, *The Life Cycle in Western Europe, c.1300-c.1500* (Manchester: Manchester University Press, 2006).

[528] *Jordanus Ruffus*, pp. 17-20.

quarter of the fourteenth century) into a more systematic method, absent in Jordanus, for selecting breeding stock. Theodoric described four criteria, taken from Palladius (4th c.), to be considered in the selection of breeding parents: form, beauty, colour, and *bonitas*.[529] Breeding parents were also examined for heritable defects or vices in the form of physical deformity, illness, and behavioural dysfunction. This was a systematic process with little room for random chance. The *hippiatric* texts made it clear that breeding horses were to be chosen - *elligendi* - carefully, and then assiduously managed during the breeding cycle, to ensure the most suitable offspring.[530] The *hippiatric* writers sought to encourage good health and positive characteristics in the infant by controlling the nutrition, labour and living conditions of the breeding parents from the time prior to conception through to the weaning and turning out of the foal.

These positive characteristics were the first step in developing the 'noble horse', the socially constructed equid focus of the *hippiatric* tradition. As such, desirable criteria included not just anatomical characteristics keyed to labour and physical capacity but also docility, beauty, and courage. Laurentius Rusius' treatise is the fullest representation of this tradition and advised selecting breeding partners for all of these attributes. The discussions of heritability and breeding presented by the *hippiatric* writers suggests several influences, including contemporary discussions on sex and generation (in humans and non-human animals), the writings of Greek and Roman agronomists, and - as always - the *hippiatric* authors' own personal experience. Their interpretations of the generative process differed in ways that potentially reflected contemporary disputes surrounding conception. This impacted upon the specifics of their breeding programs and regimen and suggests the existence of parallel discourses for human and animal reproduction.

None of the *hippiatric* authors directly engaged with the authorities disputing the one- and two sperm theories of generation, except for Albertus Magnus, who does so only in the context of human generation, not in reference to horses or other non-human animals. The other *hippiatrists* did not discuss the mechanisms of conception at all. Albertus' position within the tradition of *hippiatric* writers is unusual in that he was, primarily, a natural philosopher and not engaged in horse-care. Albertus believed, in

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[529] *Palladii Rutilii Tauri Aemiliani viri inlustris Opus agriculturae de veterinaria medicina de insitione*, trans. by Robert H Rodgers (Leipzig: Teubner, 1975). p. 190; *Theodoric of Cervia*, I. pp. 30-32.

[530] *Laurentius Rusius*, p. 6.

accordance with Aristotle and the Peripatetics, that the female 'fluid' was neither *menstruum* nor seed. It was not the cause of sex difference, which Albertus attributed to variations in a body's complexion. Nor did it have a formative role in conception, as the 'entire formative power is in the male's sperm'.[531] It is perhaps not surprising that the *hippiatric* texts were somewhat divorced from more philosophical questions of generation and conception. As Monica Green argued, until the thirteenth century human gynaecological writing existed largely in isolation from more general questions of sex and generation.[532] Treatises on sexual health and reproductive medicine often existed quite separately from natural philosophical discourses and debates surrounding conception. Although the *hippiatric* treatises seem to have initially followed suit, they quickly developed a commentary on equine heritability and generation, which paralleled the permeable division between one- and two-seed theories in humans.[533]

Heritability and the Philosophy of Generation

Jordanus' *De medicina equorum* (c.1250) described heritability in only quite rudimentary and ambiguous terms. Jordanus focused on the nutrition and management of the stallion, which was to be watched over studiously and carefully, ridden little or not at all and troubled as little by labour as possible. By ensuring that the stallion is less laboured and more comforted when it covers the mare, i.e. in the best physical condition and least exhausted by labour, a larger and more complete seed would be produced, and therefore a larger and more substantial foal would be produced.[534] The dam, in Jordanus'

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[531] Albertus referred to Avicenna's suggestion that the male sperm was the creator of the male, and the female sperm was the creator of the female as an 'intolerable error'. Magnus, I. pp. 417-25, 812-16.

[532] Monica H Green, *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology* (Oxford: Oxford University Press, 2008), pp. 208–9., pp. 208-209.

[533] For the problems with the classically-derived one-seed theory as a simplistic historical paradigm, see Helen King, *The One-Sex Body on Trial: The Classical and Early Modern Evidence* (Farnham: Ashgate, 2013).

[534] *Jordanus Ruffus*, pp. 2-4. Petrus de Crescentiis roughly followed Jordanus' views on generation in *Liber ruralium commodorum* (Leuven: Joannes de Westfalia, 1483) sig. dd2-dd5. Unfortunately, Petrus' treatise has been chronically understudied. In lieu of a decent modern edition, this is one of the better early Latin printings.

schema, provided the material and environment for generation and as such her health is linked to the health of the foal. In particular, she must be neither too fat nor too thin. Fatness will restrict the womb such that the developing foetus will be constricted and born smaller and weaker.[535] Thinness will make the dam incapable of nourishing the foal, which will be born thin and debilitated. Jordanus' treatise elided the maternal components of pregnancy and weaning, stating that breeding should occur in a season with an abundance of grass, to ensure the richest possible milk. He also described at least one illness as heritable, namely *gallis*, a swelling of the shanks, near to the hoof, which is passed on either by the mother or the father.[536] Insofar as it deals with generation at all, *De medicina equorum* implied that the form of the foal was largely provided by the sire, with the material and nutrition provided by the dam.

Theodoric of Cervia's *Mulomedicina* (after 1266) broadly followed Jordanus, but with an admixture of material taken from Palladius (4th century) and Vegetius (late 4th century). Like Jordanus, Theodoric described the conditions necessary to ensure the greatest and largest male seed will be produced; however, he shifts the focus somewhat. Where Jordanus talked about reducing labour and discomfort in the stallion, Theodoric spoke of the sire taking greater delight - *delectatione* - in the mare and the coupling.[537] He also introduced, from Palladius, the four principal features in noble horses - *generosis equis*- namely; form, beauty, colour, and goodness. Interestingly, Theodoric may have changed Palladius' wording from the features of stallions - *in admissario* - to noble horses. *Admissario* refers to the occupational role of a male breeding horse, rather than just a male horse of breeding maturity, whereas *equis*, which is of grammatically ambiguous gender, could refer to either male or female horses. The modern critical edition of Palladius does not mention any variant readings of *in admissario*, which does not confirm that Theodoric or Laurentius

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[535] This view echoes Galen on malformations of the developing fetus due to lack of space in the uterus, Irina Metzler, *Disability in Medieval Europe: Thinking about Physical Impairment during the High Middle Ages, c.1100- c.1400* (London: Routledge, 2006). p. 73, n. 26.

[536] *Jordanus Ruffus*, pp. 19-20.

[537] This follows human generation, see Mary Frances Wack, 'The Measure of Pleasure: Peter of Spain on Men, Women and Lovesickness', *Viator*, 17 (1986), 173–96.

actively changed Palladius.[538] In his *Etymologies*, Isidore of Seville rendered the phrase as '*generosis equisi,*' but did not retain the somewhat contradictory caveat from the end of Palladius' section: 'all of these things should also be considered in mares, but above all else they should have a long and broad stomach and body'.[539] Theodoric does quote from Isidore elsewhere in his treatise, and from Palladius, and as such this section may be his best reading from both texts. Nevertheless, the ambiguous gendered reading of these four groups of heritable characteristics allowed for Theodoric and then Laurentius in particular to develop a theory of heredity which included both sire and dam. Theodoric chose to add these important heritable characteristics to Jordanus' section on the beauty of horses, '*de pulcritudinis equorum*'. In its original state, it is unclear whether Jordanus intended this section simply as an enthusiast's guide to equine conformation, as an aide to purchasing horses, or as a breeding tool. Theodoric went some way to clarifying its purpose, in his estimation, as an aid to selecting both sires and dams for breeding. Theodoric departed from Jordanus in suggesting, again influenced by Palladius, that all these laudable characteristics should be sought both in the dam and the sire.

Theodoric's advice on mares suggests that his perspective on generation was somewhat transitional. By suggesting that mares should be evaluated according to the same criteria as male horses, Theodoric seems to be allowing for the idea that the mare has an active role in generation, in breeding. This requires that Theodoric's advice on 'beauty and goodness' was keyed to breeding, which is a reasonable assumption even if he did not make this distinction clearly. However, his inclusion of Palladius' advice that above all else mares should be assessed by their long and broad belly (or womb) and body does encourage the view that he was principally concerned with the selection of breeding animals. This advice, focussing on the size of the womb and body, suggests that he still clung to the view, like Jordanus, that the mare largely provided the matter and space for the foal, with the stallion providing the form and attributes. Theodoric also added, once

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[538] Both Laurentius and Theodoric seem to have had independent access to Palladius, perhaps through Isidore, as Laurentius added material on colour from Palladius which was not present in Theodoric's text.

[539] Isidorus Hispalensis, *Etymologiae XII*, trans. by Jacques André (Paris: Les Belles Lettres, 1986). pp. 69-71; Rodgers. p. 137. 'Eadem in equabus consideranda sunt, maxime ut sint longi et magni ventris et corporis'

again from Palladius, material dealing with the creation of mules and other equid hybrids. He noted that suitable creatures could be bred from a he-ass and a horse mare, or from a wild-ass (*onagro*) and a she-ass, ignoring the coupling of a female ass and a male horse, which creates a hinny. Again, the male animal provides the generative form.[540]

Laurentius Rusius' treatise incorporated both Jordanus and Theodoric's material but with significant commentaries of his own, developing a significant shift in his generative theory. He stated that the dam and sire had an intrinsic, equal, and largely unavoidable role in the generation of the foal.

> all animals beget young akin to themselves, both in behaviour as in body, therefore; in order to receive good children, it is necessary that we should select good parents, because a good and beautiful son will be produced by a good and beautiful father and the reverse will be produced by an evil [father]. The same is true of the mother.

This was a reasonably significant departure from Jordanus and Theodoric, who did not attribute a significant role in forming the infant to the dam. Laurentius even accounted for instances when this was not the case, stating that 'sometimes the opposite occurs, that a child does not resemble the parents, this occurs due to a number of reasons, but more often than not they are similar in body and behaviour'.[541] Laurentius also cautioned that the sire and dam should both be managed to avoid excessive rest, which will diminish the natural heat and spirits, cooling the body and humours, and therefore the seed. A cold and excessively humid seed produces 'little or nothing', or on occasion it produces a female offspring. This is comparable with *De spermate* (mid-twelfth century), which argued that impaired offspring could be caused by an overabundance of humours, or a change in the nature of the sperm.[542] The location of the seed in the womb could also determine the sex of the foal.[543]

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[540] *Theodoric of Cervia*, I, p. 16.

[541] *Laurentius Rusius*, p. 6.

[542] Metzler. p. 82

[543] *The Prose Salernitan Questions, Edited from a Bodleian Manuscript, Auct. F. 3. 10: An Anonymous Collection Dealing with Science and Medicine, Written by an Englishman c. 1200, with an Appendix of Ten Related Collections*, ed. by Brian Lawn (London: Oxford University Press, 1979). p. 238.

The *hippiatric* discourse on generation slowly developed into the equivalent of a two-seed theory, with a broadly equal focus on the roles of male and female, most clearly outlined by Laurentius. This was driven by concerns surrounding good offspring, and in particular the avoidance of impairment, and physical or behavioural defects. Laurentius' view of sex determination, in which a physical change in the nature of the seed leads to the conception of a female might seem reminiscent of Aristotle's view that when the sperm is insufficiently hot to master the coldness of the menstrual fluid a female will be produced.[544] However, Laurentius differed from the Aristotelian position in making it clear that both parents played a role in the formation of the foetus. The *hippiatric* treatises inherently favoured male offspring but focus on heredity and the creation of suitable offspring, most clearly exhibited by Laurentius made the influence of both parents difficult to ignore.

It becomes necessary to account for these variations in three otherwise quite similar *hippiatric* texts. Were they influenced more by contemporary discourses surrounding generation, or by their own experience? Are they aligned with any contemporary generative theory? What do they say about the development of the hippiatric treatise as a genre? These are questions that so far have not been asked about the *hippiatric* tradition. In his 1997 work on medieval horse breeding, Charles Gladitz presented ideas surrounding sex, generation, and obstetrics from a variety of sources, encompassing the whole Mediterranean basin and the entire Medieval period. He described the generative theory of Aristotle and Roman writers, including Varro (116 - 27BC) and Palladius (c. 400) who influenced Pietro di Crescenzi and Theodoric of Cervia respectively. He also described twelfth and thirteenth century Arabic texts, including the work of the Andalusian agronomist Ibn al-Awwam (d. 553 / 1158) and the Mamluk veterinary writer Abū Bakr al-Baytār (d. 742/1341), as well as the contemporary *hippiatric* treatises of Jordanus Ruffus and Albertus Magnus but unfortunately, he did not really compare them, place them into a hierarchy of influences, or explain their distinctions. Nor did he place any of these texts into a broader framework that accounted for the contemporary parallel discourses of human and animal generation.[545]

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[544] Karen M. Nielsen, 'The Private Parts of Animals: Aristotle on the Teleology of Sexual Difference', *Phronesis*, 53.4/5 (2008), 373–405. (p. 377).

[545] Gladitz. pp. 117-27, 177-189.

Cécile Auliard noted the lack of obstetric medicine presented by the *hippiatric* treatises but did not consider the *hippiatric* writers as commenters on the equine generative process. She also discussed the marshal as a practitioner of reproductive medicine. However, her analysis of the documentary evidence for the stud-farm at Brazey-en-Plaine failed to consider the marshal as a potentially rational practitioner, influenced by both *hippiatric* and philosophical texts. Auliard described the practice at Brazey of bathing mares in cold water after coitus as one of the few descriptions of obstetric care in the records of the stud-farm. She explained this as a method of avoiding the expulsion of semen, but unfortunately there is nothing in the evidence that she presented to directly support this.[546] It is a reasonable assertion, especially if the practice is considered alongside relevant veterinary texts. For instance, Abū Bakr al-Bayṭār noted that some people wash the mare's genitals and udders after she has been covered.[547] In separating the science of sex and reproduction from obstetric and gynaecological medicine, Auliard missed the opportunity to consider the potential of Jordanus and the other *hippiatric* writers, whose treatises sit somewhere between medical and scientific texts, as natural philosophers.

The development of the *hippiatric* treatises' approach to generation and heritability might be better understood in the context of the later medieval academic and medical debate surrounding the female role in conception. In the thirteenth century, the new availability of Aristotelian texts and Arabic commentaries complicated questions of sex and reproduction in the newly forming universities.[548] The Galenic view, in which both sexes provide a seed which contributes to the form of the infant, was disputed by the

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[546] Auliard, 'Les Maréchaux à l'époque Médiévale'. (163-64); Picard., pp. 89-90.

[547] Abū Bakr b. Badr Ibn al-Mundir, *Le Nâçérî: La perfection des deux arts ou traité complet d'hippologie et d'hippiatrie arabes. Trad. de l'arabe d'Abū Bakr b. Badr. Ibn al-Mundir par M. Perron*, 2 vols (Paris: Bouchard-Huzard, 1852), II. p. 41. This translation is problematic, not least because of the name given to the writer who is now more commonly referred to as Abū Bakr al-Bayṭār to avoid mistaking him for Ibn al-Mundhir (d. AH 318 /AD 930). For more on al-Bayṭār see Housni Alkhateeb Shehada, *Mamluks and Animals: Veterinary Medicine in Medieval Islam* (Leiden: Brill, 2012).Shehada. pp. 162-69. For the problematic historiography of Islamic and *hippiatric* veterinary texts, see Shehada. pp. 82-87.

[548] Monica H Green, pp. 208–9.

Aristotelian view, that only the male provides the form, with the female providing only the material of the child via the *menstruum*, menstrual blood. Albertus Magnus, who originally followed an entirely Aristotelian view in his *Quaestiones super de animalibus,* tried with limited success to reconcile this with the Galenic position in his commentary on *De animalibus*, which also contained a horse medicine and *hippiatric* discourse.[549] Giles of Rome's *On the Formation of the Human Body in the Uterus* (written in 1276) included a substantial disquisition intended to dispute the Galenic view, and reassert the passive role of the female in conception.[550] Parthenogenesis in horses was also described, for instance by the Prose Salernitan Questions, although not by the *hippiatric* writers, who might all have found it rather difficult to reconcile with their breeding schemas.[551]

The development of reproductive philosophies that incorporated and compared humans and animals allowed for parallel discourses on generation which may well have inspired the *hippiatric* writers. However, the *hippiatric* tradition were not academic medical texts, nor were they strictly speaking works of natural philosophy and as such references to *auctoritates*, which would have allowed them to be more clearly aligned with contemporary discourse, are limited. Distinguishing between the *hippiatric* writers' own personal experience and the influence of contemporary medical and scientific material is difficult at best.[552] These relative influences also differed between writers. Albertus Magnus, a Dominican friar, wrote his treatise within the frameworks of natural philosophy as taught in the *studia*, whereas Laurentius Rusius was a noble stable-master, drawing heavily upon his own experiences.

Geographic Determinism

The *hippiatric* treatises approached heritability and developmental care as allies in determining the features and characteristics of a foal. They focussed in particular on

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[549] Danielle Jacquart and Claude Thomasset, 'Albert Le Grand et Les Problèmes de La Sexualité', *History and Philosophy of the Life Sciences*, 3.1 (1981), 73–93.

[550] M. Anthony Hewson, *Giles of Rome and the Medieval Theory of Conception: A Study of the De Formatione Corporis Humani in Utero* (London: Athlone Press, 1975). p. 76.

[551] Lawn. p. 238.

[552] This also holds true for the *hippiatric* approach to contemporary medico-scientific theories such as Galenic humoralism.

parental nutrition, and geography. Beginning with Jordanus, *hippiatric* writers advised that horses should be bred in mountainous and stony or rocky environments. This makes their hooves stronger and hardier because, from birth and throughout their youth, they will become used to walking on stones and rocks, and their legs will become healthier by walking up and down mountains.[553] This advice was passed down through the *hippiatric* tradition by Theodoric, Pietro di Crescenzi, and Laurentius; and was developed by the anonymous writer of the *Boke of Marchalsi* into specific advice on the horses of Christian and non-Christian countries. He praised horses from 'Olivete', the Mount of Olives east of Jerusalem; from the 'mountaynes of Venise, or of Nubie, or of þe mountaynes of Damasce, or of þe cuntre of Halope [Allepo]'. He also praised coursers from Tarse (Tharsia), as well as 'rabites' (Arab horses, from the Latin rabitus) from 'Alisaunder' and 'Cartage' (Alexandria and Carthage).

The *Boke of Marchalsi* is organised as a conversation between master and pupil, who asks at this point 'Master, why do you praise so much the horse of the mountains?' (Mayster, why preisyt þou so mekyl the hors of the mountaynis?). His master replies:

> Because he is more sure-footed, and he will always go better upwards and downwards, and he will have good wind for working. He will have good loins and shoulders, and he will be nimbler. He will have better eyes, for he is fed more upwards than downwards. Also, he has colder flesh, for he was foaled high in the air, and therefore he shall be stronger, lighter, and better.[554]

Aside from following the advice of the earlier *hippiatric* texts, these ideas are also keyed to a sense of otherness. The countries mentioned are a *mélange* of exotic, inherently foreign, ancient, and para-mythical places. Comparisons can be drawn with horses and horse-

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[553] *Jordanus Ruffus*, p. 6.

[554] Odenstedt. pp. 16-17. 'For he shal be þe sekerer of going, and he shal evere-mor go þe beter upward and douneward, and he shal have good onde for to travayle. And he shal have good renis and shuldres, and he shal be þe mor delevere. And he shal have þe better iȝen, for he fedit hym mor upward þan dounwarde. And also he is þe colder of flesch, for he is folid heiȝe in þe heyre, and þerfor he shal be þe stronger, lighter and þe beter.'

markets from later-medieval travel writing or chivalric literature.[555] This sense of the exotic is reinforced when the pupil asks, 'are there no good horses amongst the Christian men?' The master replies that there are, but that Christian men are not good followers of 'Ypolȝt, þe good arasouur' (St. Hippolite). He admits that there are good horses in Hungary, good coursers in Calabria and Aragon, good mules in Lombardy, as well as good rouncies in flat countries ('lowe cuntries') such as Germany and Frisia, but that all of these have 'by nature, evil feet or evil eyes'. He explains that horses foaled in low and marshy country develop broad, flat feet for they are? great-bellied and heavy. He describes the horses of England, Ireland and, Scotland as fit to bear man and harness (i.e. as packhorses or riding horses), but not as 'hors of armys'. The *Boke of Marchalsi* also discusses the problems in taking horses out of their original environment. Low-country born horses require 'marchausie' (care), when they 'ben owt of her cuntre'. The horses of Lombardy are heavy and soft because that country is so moist from the sea, therefore when they are out of their country they are 'nowt worth. For if þei come in hard lond, þei shold sone be destroyd'. English, Irish, and Scottish horses are good to bear harness and baggage, provided they are 'in her oune land'. This bears a resemblance to the Hippocratic doctrine of *Airs, Waters, and Places*, in which a person's land of origin is the environment to which they are most humourally suited.[556]

The *hippiatric* construction of geographical determinism was so persistent that it was retained by the horse-care treatise written for the Teutonic Order in the Baltic, the first *hippiatric* text in German, even though it rather starkly contrasted with their own practices. Horses were vital to the Teutonic Crusades in the Baltic. They systematically bred the local indigenous small horse, the *Sweik*, and used them extensively. Their attributed names give us some idea of how extensively: they were referred to as castle, yard, fish, beach, mill, hunting, forest, plough, field and draught *Sweiks*. There was also a

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[555] For instance Pero Tafur's description of Adrianople or the Tartars, Pero Tafur, *Travels and Adventures, 1435-1439*, trans. by Malcolm Letts (New York: Routledge, 1926). pp. 74-75, 126-127, 134-35.

[556] Danielle Gourevitch, 'La Medicina Ippocractica e l'opera Delle arie, acque, luoghi: breve storia della nascita del potere di un inganno scientifico', *Medicina Nei Secoli*, 7.3 (1995), 425–33; A Wear, 'Place, Health, and Disease: The Airs, Waters, Places Tradition in Early Modern England and North America', *The Journal of Medieval and Early Modern Studies.*, 38.3 (2008), 443–66.

knight's courier service, using post*sweiks* (Briesweiken). The Order also developed an intensive and systematic program for breeding larger war horses. The earliest confirmed stud-farming was in 1322 and by around 1400 there were more than 30 large stud-farms in Prussia, on which the order bred war horses. Breeding took place on the Order's estates, and stud-farms were primarily located in lowlands, deltas, and river valleys. The most important of these were around the Vistula, on the banks of the lagoon called Frisches Haff and in Sambia.[557] This rather clearly contrasts with the *hippiatric* advice to breed in the uplands, which was retained when the Order commissioned a *hippiatric* treatise comprising material from Jordanus and Albertus Magnus.[558]

The Teutonic knight's breeding and management program was systematic. Mares were kept on the Order's estates; stud-horses were largely kept in the castles. Stallions usually serviced between 10-16 mares although studs, such as that at Insterburg in 1376, in which there were two stallions, fifty mares and sixty (presumably juvenile) *dextrariis* and foals, were not uncommon.[559] Ownership of fertile animals was regulated and the majority of male horses were sterilised when they were three years old to be used by the knights as mounts and warhorse (*Mönchpferde, Mönchhengste*).[560] Studs were generally located near rivers, and if necessary the water supply was improved by irrigation, and the land drained if waterlogged.[561] Castles and fortresses were similarly constructed with grain, meadowland, and oat cultivation for the horses in mind.[562] The Prussian landscape at this time involved extensive marsh, moor, and heavy woodland. Studs were therefore sited in river valleys as they had the most suitable natural conditions, regardless of the

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[557] Ekdahl, II. (p. 5); Fritz Rünger, 'Herkunft, Kassezugehörigkeit, Züchtung und Haltung der Ritterpferde des Deutschen Ordens', *Zeitschrift für Tierzüchtung und Züchtungsbiologie einschließlich Tierernährung*, 2 (1925), 211–308 (pp. 262, 287–88).

[558] Ottomar Bederke, '"Liber de Cura Equorum", Bearbeitungen von Albertus Magnus Und Jordanus Ruffus Aus Den Deutschen Ritterorden (1408)' (unpublished Diss. Med. Vet., Friedrich-Wilhelm-Universität, 1962).

[559] Ekdahl, II. p. 126.

[560] Ekdahl, II. pp. 128-29.

[561] Gladitz., p. 137.

[562] Ekdahl, II. p. 127.

quite persistent *hippiatric* view that horses should not be bred in marshes, lowlands, or near water.

Nutrition and Management of Breeding Horses

The *hippiatric* treatises linked the selection of breeding horses with their nutrition and management as allied determiners of good foals. The first thing to consider was the age and condition of the breeding pair. Jordanus advised only that they should both be in good condition and free of heritable defects.[563] Theodoric largely follows Jordanus but adds that stallions should begin breeding at five years, and that mares should not be bred after ten years old, as their offspring will be weak and lame. Petrus de Crescentiis (writing c. 1309), influenced by Varro (d. 27 BC), advised that breeding mares should be neither too small nor too large and that they should have broad haunches and a broad belly. Petrus, like Jordanus, focussed on the sire as the provider of the foal's form, stating that breeding stallions should have an ample and beautiful body and that no part of their body should be deformed ('incongruos'). Laurentius expands upon Jordanus' guidance on optimum breeding age by arguing that a horse born from a youthful stallion will be naturally debilitated, because the stallion's limbs are neither well developed or solid; nor are perfect strengths to be found in it. Therefore, stallions should not be used for breeding until they are five years old. Laurentius advised that mares should be bred from their second to their tenth year. He explained that the feminine sex is colder than the male in all animals and therefore they attain their perfect state more rapidly. Having attained a complete state more rapidly they then diminish from that state faster.[564]

Petrus de Crescentiis gave advice on the manner of coupling, stating first that mares should be covered twice daily, morning and night. However, the mares (whom he implies are otherwise bound or fettered) should be allowed to run free every other day, otherwise the stallion's seed, having been planted, will be ejected by the mare's lust.[565] Theodoric and Laurentius both advised that if the mare will not suffer the stallion to mount her then their genitals should be washed with stinging nettles or crushed shrimp. Laurentius explained that a lack of desire for coitus is due to a coldness in the generative

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[563] *Jordanus Ruffus*, pp. 2-3, 19-20.

[564] *Laurentius Rusius*, p. 20.

[565] *Petrus de Crescentiis*, ff. dd2-dd2ᵛ.

members of both horses, and that therefore this remedy will warm the genitals and encourage desire. They also both cautioned that servants or grooms should be on hand to separate the two horses if necessary, as during coitus they can become a danger to each other.[566] The Prose Salernitan Questions asked why a mare's desire is diminished when its hair is cut.[567] Laurentius described the optimum season for breeding; March and April in warm regions, May in cold places. This meant that the foal, which gestated for twelve months ('the time it takes the sun to complete the zodiac') would have rich milk from lush grass.[568] This broadly follows the breeding patterns of the Teutonic Order, who began covering mares in February-March and avoided getting a mare in foal after April.[569] According to Charles Gladitz, the Order's breeding mares were used for no other 'practical purpose' when they were not in foal or nursing, from late autumn.[570]

Laurentius further developed Jordanus' ideas about heritable characteristics, the condition of the parents, and their ongoing management during the breeding cycle. His labelling of this material; 'what needs to be done for those who are to be allowed to breed', reinforces through the verb *admittendi* the idea that breeding was programmatic, not at all random. Laurentius repeats and develops Jordanus' advice that breeding horses should be well fed and not put to excessive labour. Failure to do so will 'desiccate their moisture, empty their spirit, and debilitate their strengths, all of which are necessary for generation'.[571] He goes on to say that rest will increase the horse's moisture, copious nourishment will increase their spirit, and both rest and nourishment will increase their strength, all of which will enhance their desire to copulate. This advice follows the Prose Salernitan Questions, which discussed 'heat, spirit, and humor' as the three necessary prequisites to coitus, in both mares and stallions.[572] Laurentius' division of generative labour was unambiguous if not particularly well developed. He stated at the end of his

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[566] *Theodoric of Cervia*, I, p. 14; *Laurentius Rusius*, p. 30.

[567] Lawn. p. 65.

[568] *Laurentius Rusius*, p. 28.

[569] Rünger, 'Herkunft, Kassezugehörigkeit, Züchtung und Haltung der Ritterpferde des Deutschen Ordens', pp. 260–64.

[570] Gladitz, p. 138.

[571] *Laurentius Rusius*, p. 20. *cf Jordanus Ruffus*, p. 2.

[572] Lawn. p. 65.

section dealing with breeding horse nutrition and management that all things relevant to the stallions should be considered in mares also.[573]

Laurentius, parting ways with Jordanus, argued that breeding horses should not be totally at rest and without exercise. As he explains, labour and gentle exercise excite the natural heat, burns up superfluities, and enhances the spirits and the strength of the horse by assisting with digestive power. All of this helps conception by developing a purer seed. Moreover, the superfluities and excessive coldness and dampness caused by too much rest will have an impact upon the seed, causing it to become too cold and damp. Laurentius explains that a cold and damp seed will conceive 'little or nothing', or develop a female foal, 'because females are created from cold and moist seed and males from temperate'.[574] The *Prose Salernitan Questions* followed a similar rationale in explaining how sex is determined in foals born from parthenogenesis.[575] According, therefore, to Laurentius; the horses should be exercised, attention should be paid to how often they are stabled, and rather charmingly, 'the herdsmen should not be free from toil. They should wander with the horses and pasture them, and the horses' freedom of spirit should be ensured, as they should desire'.[576]

Desideratum

The *hippiatric* treatises advised that careful selection of breeding partners, suitable environment, nutrition, and management would ensure the best possible foal. This involved the promotion of several positive characteristics, and the avoidance of negative ones, which were not linked solely to size, strength, or conformation. The *hippiatrists* also selected and managed parents for beauty, which was distinct from conformation, and *bonitates* - a set of behaviours and merits which helped to mark the horse out as noble. All these characteristics, which often had to be nurtured and reinforced through training and conditioning the juvenile, were part of constructing the noble, *hippiatric* horse. They spoke

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[573] *Laurentius Rusius*, p. 24.

[574] *Laurentius Rusius*, pp. 22-24.

[575] Lawn. p. 139.

[576] *Laurentius Rusius*, p. 22.

to the division which Jordanus described, between the noble and the ignoble, which the horse facilitated in the human.[577]

The four key characteristics which Theodoric borrowed from Palladius - form, beauty, colour, and goodness - were retained by Laurentius Rusius (first quarter of the 14th c.) and also used by Albertus Magnus in his *De animalibus* (writing after 1260), although his source was probably Isidore or Palladius.[578] Similar methods of describing laudable physical characteristics were employed by the *Boke of Marchalsi*, which described conformation in much the same way as the other *hippiatric* texts. The fourteenth century household management book known as *Le Ménagier de Paris* provided a mnemonic of eighteen characteristics, found in other creatures, to look for in a horse at market:

> That is, three qualities of a fox: short, upright ears; a good stiff coat; and a straight bushy tail; four of a hare: that is, a narrow head, great attentiveness, nimbleness, and speed; four of an ox: that is, [a] wide, large, and broad *herpe;* a great belly; large protruding eyes; and low joints; three of an ass: good feet, a strong backbone, and gentleness; four of a maiden: a handsome mane, a beautiful chest, fine-looking loins, and large buttocks.[579]

Like the *hippiatric* texts, the *Ménagier* included characteristics linked to form, beauty, and behaviour; though not colour. The characteristics of 'form' often spoke to ideas of labour and utility. Whether pulling a cart or bearing an armed knight, the physical exertion of a horse's labour required roughly the same conformation. The wide, large, and broad *herpe* that the *Ménagier* refers to, is the expanse of the back, between the haunches and withers.

Although they are both largely aesthetic in nature, it is important to distinguish between form and beauty. Form, with descriptions of 'vast and solid' bodies, implies physical ability and the capacity for labour. Beauty speaks not just to physicality or strength, but also outward appearance and constructed notions of merit and value, which were keyed to nobility and extraction. Beauty was a key determiner of the social capital

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[577] *Laurentius Rusius*, p. 1.

[578] *Laurentius Rusius*, p. 6. *Albertus Magnus*, p. 1377; see also Magnus, II, p. 1477 n. 213.

[579] Gina L Greco and Christine M Rose, *The Good Wife's Guide = Le Ménagier de Paris: A Medieval Household Book* (Ithaca: Cornell University Press, 2009). pp. 223-24.

conferred by a noble horse. Miracle narratives that involved the healing of noble horses sometime used beauty as a byword for value. In one of Louis of Toulouse's miracles, a man referred to as Rychan of Marseille had a palfrey (a riding horse) that was described as very beautiful. When it became sick, Rychan summoned 'all the marshals of Marseille', suggesting a certain degree of wealth and influence, even if the marshals were inevitably unable to help.[580]

Similarly, in a miracle attributed to St. Wulfstan from around 1220, a man named Eustace of Powich returns to his field to discover that his horse, who had been pristinely white, was now horrible disfigured and black. This horse is less obviously 'noble' than those from the miracles of Louis of Toulouse. In fact, part of the distress which Eustace felt was that he had deposited 'all, or nearly all of his wealth into the horse and he was now watching it near death'. Nevertheless, it had been left tied up to graze, and so was not being worked, which places it into a slightly different category than miracles involving animals upon which the human intercessors absolutely rely.[581] The focus of the miracle is not on the fear of losing the horse's use, but on its disfigurement:

> Approaching nearer he saw that the head of the horse was horribly swollen, and he realised that it was turned black by this swelling. He believed, therefore, that it had been attacked by a serpent or eaten some vile-smelling worm within the grass. You would have called it a monster if you could see the eyes and lips, which had swollen out in the likeness of two loaves.[582]

This narrative speaks not just to the fear of losing an expensive animal, but the trauma of finding a horse disfigured, and the fear of an attractive, noble creature becoming monstrous. The fear of 'snakes in the grass' is mirrored in Laurentius Rusius' treatise, which offers several remedies for snakebite including sanicle or snakeroot and cows milk, and theriac.[583] Like Rychan and William the marshal's horses, Eustace's fine white horse

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[580] *Louis of Toulouse*, pp. 309, 289.

[581] Andrew Ayton has demonstrated that even moderately wealthy knights could have a substantial proportion of their capital bound up in one or two good horses. , pp. 47–48.

[582] *Wulfstan*, pp. 152-3.

[583] *Laurentius Rusius*, p. 424.

is defined by its beauty, particularly by its pristine whiteness. Another miracle from the collection of Wulfstan involved an ox bull belonging to Henry, prior of Hereford which was valued not for its utility but for their pleasant appearance, such that when people looked at them they would 'commend greatly the shape of their limbs'. When Eustace found the distressed horse the miracle's narrator speaks to the audience: 'you would have called it a monster'.

This sense of shame and ignominy mirrors the *hippiatric* texts' attitude towards beauty and particularly its attitude towards heritable and transmittable disease. Jordanus placed his discussion of the 'natural illnesses of horse' - by which he meant heritable or occurring from birth – immediately after 'signs by which you will know a beautiful horse', reinforcing the contrast between beauty and natural illness. These 'defects' include a lower jaw longer than the upper jaw, being born with two tails, one black and one white eye, and various skin conditions described as 'excesses of flesh'. [584] Many of these ailments have little or no obvious debilitating component; they are primarily disfigurements, which diminish the beauty and therefore the worth of the *hippiatric* horse. Discussion of the monstrous or disfigurement as a social impairment has so far largely concerned humans, often using the discourse surrounding corporeal resurrection.[585] If the mutilated body will recover 'perfect integrity' at the resurrection, what does this say about the social construction of deformity and the 'perfect', or in fact, normal body? It might seem that an animal, which will not be resurrected, would not be included within this discourse. However, as Jeremy Cohen and Susan Crane have both argued, the horse in particular was a powerful tool by which the expectations and identity of medieval people could be expressed.[586] The physical body of the horse was understood and used as an analogue for the body of its owner, such as when Robert de Broc cut off the tail of one of Thomas Becket's mares on Christmas Eve 1170.[587] Arguably, these expressions of identity through horses could easily have extended to medieval concerns surrounding *fama*, idoneity, and

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[584] *Jordanus Ruffus*, pp. 19-20.

[585] Patricia Skinner, *Living with Disfigurement in Early Medieval Europe* (New York: Palgrave Macmillan, 2017).

[586] Jeffrey Jerome Cohen. pp. 35-77; Crane, 'Chivalry and the Pre/Postmodern'.

[587] Miller, p. 958.

physical deformity. This means that the *hippiatric* horse ideally had to be beautiful and free from physical defects because it reflected and was a conduit for the condition of its rider.

The *hippiatric* tradition took a relatively straightforward approach to the colour of horses. Jordanus stated rather laconically that 'different people feel different things about a horse's hair, many of whom should not speak. I would say that bay or dusky grey are to be lauded above all else'.[588] Laurentius embellished this, offering a number of other options, before stating that 'according to Lord Jordanus, bay and dusky grey are to be lauded above all else'.[589] He also noted that stallions should be chosen with clear and single colours (as opposed to the patterned colours known as pie- and skewbald in modern British equestrianism) and that all others were to be shunned, unless the fault of their colour could be excused by their magnitude or the aptitude of their limbs. The vehemence of the language, shunned (*despiciendi*) and fault (*culpa*), suggests the importance placed particularly on the colour of the stallion. Colour was a key indicator of extraction, particularly of wild extraction, which was anathema to the *hippiatric* horse.

However, strict understandings of the correct colour for a noble horse were not followed, except perhaps as preferences. Amongst the 146 *dextrarii* appraised during Edward I's Falkirk campaign (1297-99) in Scotland, at least thirty colours were recorded. There were 30 black, 27 bay, and 15 dappled grey horses, outnumbering other colours quite significantly, perhaps suggesting that these colours were preferred. Bay and 'dusky' grey were the colours preferred by Jordanus, but of course any comparison would have to be cautioned by variations in what is essentially technical language. Jordanus would likely have been less satisfied by the appearance of 32 variously pied, or patterned horses. The three most expensive horses, at £80, were a pastern fore-legged black owned by Aymer de Valence, Earl of Pembroke, a white-footed black morel owned by Reginald de Grey, and a white-footed pied horse owned by Baron Hugh le Despenser. Also present were a dun and two fallow (yellow dun) *dextrarii*, perhaps complicating Isidore's suggestion that such horses are wild and unfit for noble use.[590]

Theodoric of Cervia's treatise was intended as a commentary or development on Jordanus' text, incorporating the knowledge of the ancients. His introduction functioned

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[588] *Jordanus Ruffus*, p. 18.

[589] *Laurentius Rusius*, p. 10. This is one of the few times Laurentius referred directly to Jordanus.

[590] Gladitz, pp. 238–39.

as a brief accolade, praising the 'Grecos Latinosque auctores', without whom *mulomedicina* (horse medicine) would not exist. Interestingly, he did not mention Jordanus, who is not named anywhere in his text. Theodoric incorporated into the *hippiatric* tradition the four-fold system of horse evaluation from Palladius, probably through Isidore, which considered form, beauty, colour and *bonitas*, which Laurentius translated as '*meritum*' and which might be suitably rendered as value or merit.[591] Theodoric introduced these four characteristics along with Isidore's interpretation, which described the importance of a courageous spirit, eagerness, trembling members which evidence strength. The horse should stir from rest easily and remain firm. Isidore advised that the strength of a horse could be discerned from its limbs and its *motus* (its mood) from its ears.

To interpret Isidore's slightly vague passage, Theodoric discussed the notion of *fisonomia*, which transcends beauty and allows one to judge the behaviours and probities of the horse from the disposition of the body.[592] From this, the value or merit of a horse could be estimated. For Theodoric, this involved a collection of the hidden signs of impairment, and indicators of ugly or unsatisfactory behaviour. When one of its eyes is raised and the area above its pupil is turbid or cloudy, or when it does not move one of its eyelids in response to somebody standing at its flank and moving their hands swiftly, then its sight is impaired, and it should be considered a cyclops, which diminishes its value. He also describes a sign for night-blindness; if the horse is not afraid in the night of something that it fears during the day. This also diminishes the value of a horse, as it cannot see at night. Theodoric makes the distinction between evil faults and ugliness, stating that concave, cavernous eye sockets do not constitute an evil vice (*malum vitium*), but will render the horse ugly ('turpem'). In contrast, a horse with white eyes is of significantly limited value as it will not be able to see in the snow or in cold regions. A horse whose ears are flung out backwards is deaf, but when the ears of a horse hang down and backwards it is ugly, but no less valuable because of this. Finally, a horse which does not hinny, cry out, nor make any other noise with its mouth is mute; but it is no less valuable for this. This last instruction is reflected in Theodoric's later discussion of horse-breaking, in which noise from the horse is constructed as a lack of submission, and

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[591] *Theodoric of Cervia*, p. 32; Rodgers, pp. 130–36; Barney, p. 250.

[592] See Adriana Bontea, 'Montaigne's On Physiognomy', *Renaissance Studies*, 22 (2008), 41–62. for the popularity of physiognomy in the early modern period.

inherently negative.[593] All of his advice speaks to concerns about impairment. It is interesting that Theodoric distinguishes between impairments of utility, such as muteness and blindness, and impairments rendering the horse ugly or disfigured. Ears flung out backwards or blindness reduce the horse's capability, ears hanging backwards render it ugly, muteness does neither and is quite beneficial.

Laurentius' approach to this notion potentially also responded to Isidore's impractical advice, although in a rather different manner. He gave roughly the same instruction on recognising form, colour, and pulchritude in a horse as Theodoric, much of which was taken from Jordanus, but his response to *bonitas* or *meritum* was quite different. Laurentius noted that often a horse is ugly, malformed, and the wrong colour; and yet it is a perfectly good horse.[594] 'A horse ought to be held dear due to its goodness; because one should desire goodness over beauty'. He goes on to say that utility and goodness are more important than beauty, and that usefulness and goodness excuse a horse of ugliness. Although, as a caveat he does note that 'if beauty can be had alongside goodness, this would be better still'. Laurentius is describing the noble, *hippiatric* horse; beautiful and well-behaved, as well as functional. However, he recognises, perhaps in response to Theodoric's obsession with ugliness and impairment, that goodness can trump beauty. This approach to goodness, or merit, is borne out by the *hippiatric* tradition's discussion of domestication, training, and behavioural defects and it is reflected in narratives of domesticated, often noble horses going wild.

One concept conspicuously absent in the *hippiatric* treatises' discussions of breeding are the occupational taxonomies which commonly defined medieval horses as, for instance, 'palfrey', 'destrier', or 'rouncey'. These distinctions, which classified horses according to a combination of their labour-role and status, are entirely missing from the *hippiatric* tradition, although they have played an important role in scholarship on medieval horse, especially in association with military tasks and tournaments.[595] The *hippiatric* horse in contrast is most often described as *equus*, the female as *equa* or *jumentum*, and the infant

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[593] See Chapter 6.

[594] *Laurentius Rusius*, pp. 10-12.

[595] Michael Prestwich, *Armies and Warfare in the Middle Ages: The English Experience* (Yale: Yale University Press, 1999); Debra M. Powell and others, 'Evaluation of Indicators of Weight-Carrying Ability of Light Riding Horses', *Journal of Equine Veterinary Science*, 28 (2008), 28–33.

as *pullus*. Very occasionally a horse will be described as *caballus*.[596] Gladitz argued that even in the relative absence of recorded measurements there was 'no doubt' that *destriers* were generally very big by comparison with other horses.[597] The image of the later medieval 'great horse, perhaps as tall as 17 or 18 hands' and selectively bred for size was central to Ralph Davis' magisterial account of the development of the medieval war horse.[598] For comparison, an 18 hand horse would be equivalent to the largest modern Shire, draught or police horse and significantly larger than the majority of modern riding horses. John Clark demonstrated in 1995 that no iconographic, material culture, or archaeological evidence sufficiently supports the notion of the 17 or 18 hand destrier.[599] Unfortunately, images of very large warhorses, 'armour-carrying equine juggernauts', and the concomitant presumption that the *destrier* formed a heritable, biological classification, which was reproduced largely through selective breeding, have both been very persistent. Ralph Davis went so far as to attribute, at least in part, the success of the Normans to rigorously selective warhorse breeding. He said nothing of training, and little of health-maintenance.[600] This raises the question of why these categories, which are so important to scholarship's view of the medieval horse, and in particular the destrier, are absent from *hippiatric* discussions of selective breeding?

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[596] Albertus Magnus described *caballi*, but this reflects the influence of Isidore of Seville, whose *Etymologies* described four types of horse. Albertus developed this to better reflect the horses in his own lands. Magnus, II. pp. 1478.

[597] Gladitz, p. 158.

[598] R. H. C. Davis, *The Medieval Warhorse*, p. 69., this equates to 170-80 cm at the withers, the highest point of the shoulders.

[599] John Clark, *The Medieval Horse and Its Equipment, c.1150-c.1450*, Medieval Finds from Excavations in London, 5 (London: HMSO, 1995), pp. 22–32; See also, Matthew Bennett, 'The Medieval Warhorse Reconsidered', in *Medieval Knighthood, V: Papers from the Sixth Strawberry Hill Conference 1994*, ed. by Stephen Church (Woodbridge: Boydell & Brewer, 1995), pp. 19–40.

[600] Dent, 1987, p. 21; M. G. A. Vale, *War and Chivalry: Warfare and Aristocratic Culture in England, France and Burgundy at the End of the Middle Ages* (London: Duckworth, 1981). p 122. R. H. C. Davis, 'The Warhorses of the Normans.', in *Anglo-Norman Studies, X: Proceedings of the Battle Conference, 1987.*, ed. by R. Allen Brown (Woodbridge: Boydell, 1988), pp. 67–82.

Taking aver and palfrey as examples, these occupational categorisations incorporated ideas of labour-role, status, and extraction.[601] The aver was understood to be a working animal, a base animal, and a farm animal. It is of 'wild' extraction, which potentially means several things. It could imply that it is bred wild, not on a breeding farm or enclosure and with little or no human selection or oversight. This sort of breeding environment, as encapsulated in the qualifier *silvestris*, connotes both a woodland and a *wild* land. It could also indicate that it was of wild stock, as Isidore discussed and many others interpreted. Neither of these connotations can be incorporated within the noble or *hippiatric* horse, explaining why the *silvestrian* horse played no part in these treatises.

The palfrey was also defined by its labour-role, status, and (at least by implication) its extraction. It was a riding horse, used by the upper-classes, and of similarly noble origin, perhaps being bred in the sort of farms and according to the sorts of selection processes which Jordanus and the other *hippiatric* writers described. The *hippiatric* horse was, by implication at least, a noble one. Its extraction and breeding were explicitly defined by Jordanus and often in more detail by later writers, notably Laurentius. Its labour-roles were also reasonably well defined. The *equi*, and to a lesser extent the *equae*, that Jordanus described were not simply 'horses' in the sense of a universal biological entity. Jordanus understood his *equi* with a particular combination of labour-role, status and extraction that rendered classifications like 'palfrey' irrelevant. This may explain why the Falkirk muster role included 'equus' amongst the three types of horse accounted for prior to Edward I's 1297-8 campaign: the others being 'dextrarius', and 'runcinus'. The middling class - 'equus' -might have been perfectly clear to Edward's clerk, as a classification of noble riding horse.[602]

Jordanus' text was rather ambiguous as to whether his horses were intended for military purposes. He speaks in his introduction of bellicose men, who delight in war, but there is little in his treatise that speaks directly to training or breeding for particularly military purposes. The fifteenth-century Middle English 'Boke of Marchalsi' suggests that the separation of military horses and riding horses did not occur until later in their development: 'after the fourth year, ride the horse a little to learn from his gaits if he shall

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[601] Langdon, pp. 294–95.

[602] See Ayton, pp. 53–57 for the appraisal of warhorses.

be a war horse or a palfrey'.[603] If so, this brings into question the idea of the war horse's uniqueness as a physical entity, selectively bred for size or power. Instead, it seems that war horses may have been as much the product of intensive training and acclimatisation, not just peculiarly large and bellicose horses. Of course, this does not help to explain why destriers and palfreys are absent from the earlier *hippiatric* discourses. Perhaps instead it explains why the anonymous writer of the Boke of Marchalsi, which given its form and structure was likely influenced by the Jordanus group of texts, chose to clarify the earlier hippiatric texts, by advising that the separation of palfreys and 'hors of armes' occured as a developmental stage, and not because of breeding choices.

Development and Maturity

Whether the *hippiatric* horse, which was uniformly male, had matured to its working life stage was judged based on three potential characteristics: reproductive capacity, physical development, and completion of a process of domestication and training. As noted above, Laurentius Rusius' treatises considered male horses fit for reproduction from the beginning of their fifth year. Female horses could be covered from their second year and after their tenth year they were judged useless for conception as any offspring born from them would be weak and slow.[604] The *hippiatric* tradition largely agreed that male horses would show an interest in females from the age of two, at which point they were separated from their mothers, but that younger males should not be allowed to cover females until they reach five years.[605] When separated from their mothers adolescent males should, if possible, be allowed to form a herd until their third year. This herd roamed and grazed freely, with sufficient good pasture and without the company of mares. By running through the fields, it was thought that the horses would be made healthier in body and limbs, due to the air and freedom of spirit available to them. During this period, they would reach a state of physical development suitable for domestication and training. Having become part of a herd they would need to be re-captured so that

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[603] *Boke of Marchalsi*, p. 6, 'aftir þe foure ȝer men shal ride hym oþerwylle a lityl for to lere hys alurys, yf þat he be hors of armes or palfray'.

[604] *Laurentius Rusius*, pp. 20-22.

[605] *Laurentius Ruius*, p. 38.

they could be broken and schooled. The *hippiatric* doctrine advised that adolescent horses be caught in May, when they would be fatter, and any corruption or warming would be purged from their body by spring pasture.

Adolescent horses could be schooled from two years old (when they are separated from their mothers) but waiting longer was better. Those who were tamed after their third year were thought more physically capable of sustaining labour. Laurentius referred to the 'Emperor Frederick' as an authority on breaking horses later in life:

> Although it will be difficult to tame them after this time, nevertheless, so it is said, the Emperor Frederick would have no horses for his personal use, unless they had been tamed at four years old, and he said that through this, these horses were healthier and stronger, that they had more powerful legs and joints, which were cleaner and dryer, and that from that age, they could not have *gallas*.[606]

When the adolescent horse was recaptured (*laqueari*) they were schooled until the age of five. They were ready to be ridden when their permanent teeth had all begun to 'even out' (laur. 72). The teeth were used quite broadly as an indication of age, from two and a half years, when the 'upper middle teeth' would begin to fall and be replaced by canines, until seven years, when all their teeth should have emerged. Laurentius cautions that it is not possible to know for sure the age of a horse by this method, but that other signs of age could escape notice.[607]

Domestication

Having been captured and taken from the herd the adolescent horse, which is usually described by the *hippiatric* treatise alone, began a process of domestication which according to the *hippiatric* doctrine should take around two years. This process was intended to normalise interactions with humans and other domesticated animals, to accustom the horse to the environments of human society, and make them accept the bridle, the bit, the saddle, and finally the rider. Horse-carers employed physical contact,

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[606] We can presume he was referring to Frederick II, but I have yet to find a source from Frederick for this opinion. *Laurentius Rusius*, p. 42

[607] *Laurentius Rusius*, pp. 72-74.

coercion, and control, as well as pain and fear. Avoiding the creation of vices was paramount. The intention of this process was to create what Isidore referred to as the well-bred horse (*equus generosus*), suited for battles and riders.[608] It was steeped in the taxonomic philosophies which constructed the civilised horse as a somewhat different entity to the crude, sylvan farm horse. The domestication process functioned similarly to a noble human adolescence: the horse was moulded, schooled, and reformed. The body was strong, the physique developing, and the desire to reproduce had formed, but the horse needed to go through a maturation process. It needed to submit to human authority – akin to adult authority – to be mentally and behaviourally sculpted. When it was over the former adolescent state would be rejected and any retrograde behaviour would be swiftly corrected.

The close textual association between the *hippological* and *hippiatric* features of the Jordanus tradition mean that these treatises were not just remedy collections or discussions of equine pathology, but theoretical discourses for constructing and maintaining a civilised horse. Jordanus' text presented a foundation for behavioural control in its *hippological* section which was commented on and developed by later writers: Theodoric of Cervia, Laurentius Rusius and others. These writers often added behavioural control remedies to Jordanus' text which complemented the domestication process and became persistent features of the *hippiatric* tradition, surviving into texts which bear little other resemblance to Jordanus' format.[609] It is important, therefore, to read the *hippiatric* tradition as a whole, and to approach the two parts of these texts – the *hippological* and the *hippiatric* – as complementary. The later methods of behavioural control offered should be viewed as complements to the process of domestication. They were intended as methods of maintaining this domesticated, civilised state.

Once the horse had been captured it was secured with a *capistrum* – a bridle or halter – and led to a stable 'in the company of other domesticated horses'.[610] Its environment was controlled; it was secured tightly to a stall by the head and its front and rear feet were tied down so that it cannot roll. Its stall was kept clean in the day and

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[608] Barney, p. 250.

[609] Notably *Boke of Marchalsi* and *Cirurgie des Chevaux*.

[610] *Theodoric of Cervia*, I, p. 16.

covered in a thick bedding of straw – up to the knees – at night, to keep it calm. Care was taken to avoid fumes, noxious air, in the stable which are frequently the cause attributed to ailments in *hippiatric* texts. The horse was given a developmental diet of grass, hay, barley, oats, and spelt intended to expand the guts and develop the limbs through the moistness of the grass and hay. When it reached physical maturity, it was given small amounts of barley and hay, to ensure the dryness of these crops did not make them excessively fat.

In the morning, the horse was rubbed down and bathed, fulfilling a dual function of maintaining cleanliness and accustoming the horse to human contact. The slow acclimatisation of the horse to humans and other problematic stimuli through gradual but determined, often physical contact was a persistently used method. Jordanus advised that the horse should be touched lightly and sweetly, all over, but never with fierce indignation, to avoid it developing vices or other unseemly things.[611] Theodoric suggested that it should always have the company of other domesticated horses. One of his behavioural remedies advised that a timid horse should be led at night alone through quiet fields, and by day 'through the streets and busy places where there are great noises, and where there are carpenters and other artisans preparing hides and skinning animals'.[612] Laurentius Rusius then incorporated this material into his domestication program. He advised that a horse, after it has become accustomed to the bridle, should be ridden gently and without impetuous gallops, through the city and through those areas where smiths are to be found. He particularly encouraged that the young horse should be accustomed in this fashion to loud noises, rackets, and commotion.[613] These behavioural normalisations speak to Isidore's taxonomy of the noble horse, which unlike the *equiferus* was suited to life in the city.[614] The horse was also accustomed to its feet being struck frequently, to accustom them to being shod, though it is not clear that this was done with any malice or even particularly hard.[615]

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[611] *Jordanus Ruffus*, p. 6.

[612] *Theodoric of Cervia*, I, p.16, *Theodoric of Cervia*, III, p. 36.

[613] *Laurentius Rusius*, pp. 70-72.

[614] *Isidori Hispalensis Episcopi Etymologiarum Sive Originum*, ed. by W.M. Lindsay (Oxford: Oxford University Press, 1911), l. xii.i.45.

[615] *Theodoric of Cervia*, I, pp. 16-18.

The horse according to this schema would be progressively introduced to riding implements; first the bridle, then the bit, and finally the saddle, the whip, spurs. A lack of noise, rebellion, and aggression from both the rider and the horse are hallmarks of this method, and indicators of its progress. The horse is encouraged to take the bit with 'sweet liquors' until it will do so without 'difficulty', it is led by the hand until it will do so without 'contradiction', and is then ridden without 'noise, commotion or saddle'.[616] Theodoric also advised that if a horse whinnied excessively whilst it was being schooled you should tie a stone around the dock of its tail. A later Middle English collection of horse remedies advised that a horse which 'sholde not naye' might have its tongue bound until the offending behaviour was corrected.[617]

Part way through their schooling, when the horse has been accustomed to the rider but is still being ridden without stirrups, or saddle they are led by hand in short circles, first on the left and then on the right, clockwise and anticlockwise. Jordanus and Laurentius both advise that at this point the horse should be struck with a stick, although this phrase is absent from Theodoric.[618] Common to all three writers is the advice that once the horse is being trotted or galloped the rider should begin occasionally pulling the reins down with both hands close to the neck. This forces the horse to fold or arch its neck, bending its head in close to its chest. This was thought to encourage the horse to look more closely at its steps whilst galloping and trotting and to more pleasantly wheel, both on the left and the right. It may also have produced a more elegant outline. Pain and control were common parts of the *hippiatric* schooling method, along with normalisation. However, there was also a concern that the horse would develop vices if improperly handled. Laurentius' advice on dealing with a timid horse recognised that if you forced a horse through loud and chaotic places with 'savage blows from the whip or spurs' instead of gentle blows and soft words, then he will forever associate loud and chaotic places with beatings and great struggle.[619]

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[616] *Jordanus Ruffus*, pp. 10-11, *Laurentius Rusius*, p. 64.

[617] *Theodoric of Cervia*, I, p. 22, Hands, p. 237.

[618] *Jordanus Ruffus*, p. 11, *Laurentius Rusius*, p. 64, *Theodoric of Cervia*, I, pp. 22-24.

[619] *Laurentius Rusius*, p. 72.

Castration and sterilisation

Castration as a method of domestication was not mentioned by Jordanus or by the domestication schemas which followed his example. Medieval scholars commonly assume that noble horses were not castrated, and certainly not warhorses, following Albertus Magnus' position that horses become timid after castration.[620] However, during their colonisation of Prussia the Teutonic Order sterilised or castrated all their brother's war horses and riding mounts, keeping only breeding studs entire. Young male horses were almost always rendered infertile by strangulation of the spermatic cords, meaning that their testicles remained largely intact.[621] Laurentius offered a variation of this method that involved stretching the scrotum over a flat board and then tying off the testicles with cords woven into board. The board was then struck gently with a hammer so that the spermatic cords would be destroyed 'either entirely or only partially if a skilled artisan wished'. If only some of the cords were destroyed, then the horse would only lose some of its 'pride' (*superbiam*). The testicles remained tied off until they had withered and dried, and the board was then removed. Laurentius called this an *experimentum*, noting that it was commonly used 'amongst the peoples of Syria across the sea, and by all the Eastern peoples, who used castrated horses indifferently'.[622] Abū Bakr al-Bayṭār recorded a method for castration that involved strangling the testicles with a wooden rod called *mishqas ifranji* – the Frankish forceps.[623] The Teutonic Order would occasionally completely castrate their horses, though Steven Ekdahl remarked that 'it can be assumed that these geldings were primarily used as draught or saddle-horses'.[624] Ekdahl presumed,

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[620] Crane, 'Chivalry and the Pre/Postmodern', pp. 74–75.

[621] Fritz Rünger, 'Herkunft, Kassezugehörigkeit, Züchtung Und Haltung Der Ritterpferde Des Deutschen Ordens: Ein Beitrag Zur Geschichte Der Ostpreußischen Pferdezucht Und Der Deutschen Pferdezucht Im Mittelalter', *JBG Zeitschrift Für Tierzüchtung Und Züchtungsbiologie Einschließlich Tierernährung*, 2.3 (1925), 211–308 (p. 265).

[622] *Laurentius Rusius*, pp. 194-96. 'Et hoc experimento utuntur communiter Syri, ultramarini, et generaliter omnes orientales, qui indifferenter castratis equis utuntur.'

[623] Shehada, pp. 458–59. In the early period of the Crusades the term *al-Ifranj* was coined to distinguish western crusaders from the Christians of Byzantium. Later Arabic texts then used *Ifranj* to refer to any western Christian.

[624] Ekdahl, II.

like Albertus Magnus, that a gelding without testicles had entirely lost the masculine vigour necessary to fight. However, German noblemen of limited means who were under obligation to perform *platendienst* (plate-service, referring to their chest armour) for the Teutonic Order would also commonly ride castrated horses (*a spado*).[625]

Castration was also commonly advised in cases of behavioural vice known as *restivo* or *ropio*. Theodoric referred to castration as a final, but highly effective method of remediation. Rusius, like Theodoric, offered a number of remedies, but made it clear that castration was a universally effective method; 'postquam equi castrati fuerint, efficiuntur mansueti, et restivi non erunt'.[626]Theodoric was similarly brief; 'curantur etiam restivi quando castrantur'.[627] Laurentius offered advice on castration, noting that unless it was performed by a careful marshal it was very dangerous. He advised therefore, that castration should take place only during the months of March, April, and May and when the moon is waning.[628] Neither *hippiatric* writer passed comment on the practice of castration, or its impact on the value of a horse. Although Laurentius does refer to this as the 'final remedy', that seems to be because of its efficacy. A castrate had lost its value as a stud, but it is not clear how far it had lost its occupational value or its social capital.

The domestication process, as discussed by the hippiatric tradition, was intended to construct a noble horse, fit for prolonged human contact, which was to be ridden in civilised environments and had to be free from vices. As such, it separated the noble horse from draught horses and other ignoble beasts. This process was not intended for them.[629] Persistent tensions over domestication and wildness were visible long after domestication and become a rich source of healing and illness narratives. The healing of a furious, wild and undomesticated horse is a common feature of miracle collections. Remedies for behavioural control and narratives of wild and uncontrollable horses, at all levels of society, are common, indicating that even the most determined domestication

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[625] *Das Grosse Ämterbuch Des Deutschen Ordens*, ed. by Walther Ziesemer (Wiesbaden: Sändig, 1968), p. 4.

[626] *Laurentius Rusius*, p. 384.

[627] *Theodoric of Cervia*, III, p. 34.

[628] *Laurentius Rusius,* pp. 382-84.

[629] Although, as will be discussed later in this chapter, the *hippiatric* tradition's veterinary material did consider the health implications of load-carrying and cart-bearing horses.

process had the potential for failure. The *hippiatric* ideas surrounding domestication, behavioural and physical development, as constructed by Jordanus and developed by his successors, went together with occupational medicine intended to maintain the constructed horse.

Adulthood

The working life-stage

Once the domestication process was complete, the working life stage had begun, at least in principle. The transition from a juvenile to a working adult state was both a philosophical and mechanical process, with rigid doctrines and structured, repeatable, and predictable outcomes. The terminal point of the working life of a horse was of course more open to providence. It could end with senectitude, or through some illness or catastrophe. Jordanus stated that a horse that is diligently cared for, following his regimen, and ridden moderately, according to its own strength and ability, will remain strong for twenty years, for the most part.[630] From the perspective of the horse's owner, and therefore often their principal historical narrator, the sale of a horse might also end or disrupt its working life. Preparing a horse for sale, being an informed buyer, and the tensions inherent to the sale of horses are also dealt with by hippiatric texts. These concerns formed part of the historical narratives of marshals and horse owners. A horse might also be removed from its working state by illness and poor maintenance, either temporarily or permanently.

The working life and existence of horses varied according to their status and material conditions. Most horses were ridden and performed physical labour, but the nature of that labour varied according to the horse's role and the status of its owner. This is reflected in the concerns of *hippiatric* texts, and illness and healing narratives. A low status draught horse was defined by its ability to successfully perform physical labour. Its healing narratives were constructed along those lines, successful healing was signalled by a return to work. A high-status riding horse was defined by its appearance and behaviour, as well as its ability to be ridden, often while walking slowly and delicately. Its illness narratives were often associated with beauty, unsightly tumours are often in the face, and

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[630] *Jordanus Ruffus*, p. 10.

whilst lameness is common across status groups, high-status lameness is constructed differently: as a hindrance to slow peregrinations, and socially important journeys rather than a prevention of low-status labour. Even the act of a horse being ridden was constructed by hippiatric writers as a socially meaningful activity. Jordanus described the riding of horses as an act which separated princes, magnates, and knights from lesser peoples; Laurentius Rusius stated that without the noble advantage of riding, foreign lands could not be assailed and raging rivers conquered.[631] Although these and other hippiatric texts approached ailments and implied material conditions which perhaps permeated status boundaries, their philosophical impetus was often developed around the notion of the noble horse. This impacted upon their discourses of horse-breaking, training, domestication, and behavioural control. However, this was not necessarily reflected in their discussions of equine occupational, or labour health. The physical duties of horses were described by the Latin *hippiatric* writers in a number of ways, but principally as 'labor' or 'onus', and 'equitatio' - labour or carrying loads, and being ridden.[632] These duties, whose mismanagement and excessive oppression are frequently the cause of illness and injury in the hippiatric texts, represent the working lives of most medieval horses: hauling loads, carrying goods, and being ridden. Theodoric of Cervia described this paradigm further in stating that the oppressions of a negligently applied packsaddle or riding saddle, and the injuries caused by a load (i.e. cartload) are the three principal causes of suffering to horses on the road.[633]

The *hippiatric* writers' discussions of occupational illnesses, introduced by Jordanus as part of the 'accidentalibus infirmitatibus et laesionibus equorum' which made up the majority of his treatise, most commonly attributed occupational illness to mismanagement, as the material condition leading to suffering. The *hippiatric* texts frequently refer to 'immoderate' or 'excessive' labour (in the sense of riding) or load as a cause of illness. For instance, Jordanus discussed a form of lameness called 'infuso', caused by excessive food or drink, or by immoderate labour. Excessive riding created superfluous humours or blood which overflow through the legs to the hooves or feet,

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[631] *Jordanus Ruffus*, p. 1; *Laurentius Rusius*, p. 2.

[632] See, for instance; *Jordanus Ruffus*, pp. 39 and 58.

[633] *Theodoric of Cervia*, II, p. 52.

causing pain and lameness.[634] Riding and nutrition were both the responsibility of the carer in a managed horse, so there is no sense that the blame lies with the horse when *infuso* is caused by excessive food or drink. The *hippiatric* texts view occupational care as holistic. The physical condition of the horse is also the responsibility of the owner, and a material factor in occupational illness. Jordanus described 'jardis', swellings on the hock about the size of a nut or egg, which were formed naturally (i.e. at birth) or caused occupationally.[635] Young horses were particularly prone to *jardis*, when they are oppressed by immoderate labour or repeated, hurried riding; especially when they are excessively fat. This illness incorporates ideas of condition, labour, and development: afflicting young horses whom Jordanus implied should not yet be ridden. Petrus de Crescentiis rendered this illness 'zarda' and removed the references to youth, perhaps because he felt that age was not a factor in its morbidity.[636] Other ailments which Jordanus attributed to a combination of excessive labour and a not-yet developed horse include *curba,* an inflammation of the large ligament at the head of the hock, and *gallis*, tumours around the joints of the leg near the feet. *Gallis* and *jarda* are the two ailments Jordanus described as natural, occurring before birth, which suggests an association between juvenile and natural illness.[637]

As well as condition, labour, and development; the *hippiatric* texts were concerned with the horse's equipment particularly the bit and the saddle. Jordanus describes two causes of 'laesiones linguae'; *ex morsu freni* and *ex morsu denti* - 'from the bite of the bit' and 'from the bite of the teeth'. [638] The latter, from the bite of the teeth, seems to be placing the onus on the horse, although the interaction of tongue, teeth, bit, and handler could be rather complex; and responsibilities could become unclear. A miracle from the collection of Thomas Cantilupe from June 1288, described the healing of a horse belonging to Gilbertus, the master of the hospital at Bridgewater, which was being

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[634] *Jordanus Ruffus*, p. 38-41.

[635] *Jardis* is one of the illnesses which Jordanus describes as heritable in his section on 'natural illnesses'. See the previous section on 'Heritability and the Philosophy of Generation' earlier in this chapter.

[636] *Jordanus Ruffus*, pp. 69-71; see also *Petrus de Crescentiis*, ff. ee4-ee4^v

[637] *Jordanus Ruffus*, pp. 75, 78.

[638] *Jordanus Ruffus*, pp. 54-55.

looked after by a 'garcio', a boy or more likely a groom. The horse's tongue had become caught in its bit or bridle and the groom, having yanked violently on the bridle, had torn out a large part of the tongue. Gilbertus' horse, having been deprived of its tongue, could no longer eat nor drink. As such, it was described as having deteriorated almost immediately, such that is seemed that it would inevitably die. The onlookers requested Thomas' assistance by measuring the horse and it was miraculously healed. The horse began to whinny and eat, signalling its return to health.[639] This type of injury in which a large part of the tongue was wounded, or the tongue was split transversely, was of particular concern to Jordanus who judged it 'quasi incurabilis' - practically incurable. This sort of life-threatening injury should be read in terms of occupational health. The bridle, the bit, even the groom were part of the horse's industrial network and this injury was an industrial hazard. The recourse to Thomas Cantilupe, read alongside Jordanus' remedies, speak to the plurality of responses to what was likely a relatively common occurrence amongst working horses.

Jordanus made it clear that severe injuries and discomfort were often caused by improperly used saddles and tack. He described the oppression of an ineptly constructed saddle causing putrefying lesions on the back, which put the whole body at risk. He also described skin lesions, caused by the 'excessive or too frequent' oppression of a saddle 'or other load', which could eat through to the bone.[640] Many of Jordanus' ailments apply, as this one does, to saddles and other burdens, suggesting the transferability of the *hippiatric* remedies. The occupational distinctions between riding and cart or farm horses have limits. One load was like any other. Competency is a persistent idea in Jordanus' discussion of morbidity and occupational health. He described a horse left without a shoe and led through the stony and rocky places of mountainous regions whose feet become injured by the oppressions and strikes of hard stones.[641] The horseshoe, like the bit, should be thought of as part of the horse's industrial network. The shoe and foot themselves become the focus for industrial incompetency. Jordanus described a lesion of the bottom of the *tuellus* (the frog - fleshy part of the horse's foot, contained within the

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[639] *Thomas Cantilupe*, p. 670.

[640] *Jordanus Ruffus*, pp. 56-59.

[641] *Jordanus Ruffus*, pp. 100-102. These are the same environmental descriptors Jordanus uses for the optimum breeding environment.

hoof) called *ficu subtus*, caused by the negligent failure of a marshal to remove debris from the hoof. The horse's body and the manmade accoutrements appended to it, literally nailed to it in the case of shoes, were part of its industrial network. They were determiners of its occupational health and potentially hazardous when misapplied or poorly managed.[642]

Healing narratives sometimes dealt with the failure of a care provider to maintain the health of a horse in an occupational setting. Moreover, carers are occasionally the direct cause of harm, as implied by much of Jordanus' text. For instance, a miracle attributed to Henry VI (d. 1471), involved an estate manager (*yconomus*) from Godmanchester in Cambridgeshire riding through the countryside to survey the harvest. He was carrying a sharp, two-pronged *instrumentum*, with which he intended to inspect the crops.[643] Riding swiftly, he dropped the fork, and in his efforts to retrieve it whilst remaining seated the fork pierced the horse's side. Perhaps unremarkably the horse became enraged, bellowed ferociously, and leapt around; 'from which the dismayed and dissolved man trembled, in his heart and soul'.[644] The overall message of the miracle, that Henry soothed and healed the beast 'without the use of human arts or the help of physical medicines', risks overshadowing the fact that this was an industrial accident, caused by the incompetence of the *yconomus*, which highlights the hazards present in even a relatively normal journey. Although the *hippiatric* tradition by its nature did not include topical narratives such as this one, it did highlight the hazards that the horse faced, as an industrial animal, and the importance of occupational health management and preventative medicine.

The *hippiatric* treatises recognised and often focussed on the interaction between health, illness, and horse-management; in the form of housing and washing, fitness and

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[642] For paleopathological studies of the impact of riding and the industrial use of medieval horses, see A. Pluskowski, K. Seetah, and M. Maltby, 'Potential Osteoarchaeological Evidence for Riding and the Military Use of Horses at Malbork Castle, Poland', *International Journal of Osteoarchaeology*, 20 (2010), 335–43.; M. A. Levine and others, 'Palaeopathology and Horse Domestication: The Case of Some Iron Age Horses from the Altai Mountains, Siberia', in *Human Ecodynamics*, ed. by G. Bailey, R. Charles, and N. Winder (Oxford: Oxbow Books, 2000), pp. 123–33.

[643] A pitchfork of some kind.

[644] *Henry VI*, VI. 144.

nutrition, and perhaps most importantly the restriction of work to within suitable limits. Laurentius Rusius advised that horses should not be ridden between the middle of July and the end of August, as the excessive heat and immoderate labour will dry and desiccate them internally. Similarly, Laurentius recommended that a horse should not be ridden during the coldest months – December and January – as the sweat and excessive heat from their labour would quickly chill them.[645] The *hippiatric* writers also recognised the potentially hazardous impact of excessive labour. Jordanus described several illnesses caused or aggravated by immoderate or excessive work. For instance, an unreasonable burden placed on the back could encourage the generation of superfluous 'bad humours', which caused *malferutus in lumbis*, severe pain in the lower back or the area around the kidneys. This was so serious that the horse was barely able to stand up or support itself on its back legs.[646] In this instance *onus* (burden) could apply to either or an excessively large rider - along with their arms and armour - or an excessive pack or other load. The health implications of excessive burdens cross the distinctions between riding and pack-horses.

Immoderate labour was considered alongside other potential causes for illness, including food and environment. Jordanus and the later *hippiatric* texts often include references to morbidly swollen testicles, which arise through excessive bodily humidity and can lead to severe intestinal swelling and death. The root causes for this include eating grass and other humid things, particularly in springtime, and immoderate labour or excessive load. Jordanus separated these two causes in terms of their severity. When caused by moist food this condition would pain the horse severely, but when caused by excessive labour it could lead to the intestines herniating (literally 'falling into the skin between the intestines and the testicles').[647] Jordanus and Laurentius each recognise that

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[645] *Laurentius Rusius*. p. 60.

[646] *Jordanus Ruffus*, pp. 62-63.

[647] *Jordanus Ruffus*, pp. 37-8. '...quandoque accidit ex nimio et immoderato labore vel superfluo onere intestina cadunt rumpendo illam pelliculam quae exstat inter intestina et testiculos equi, de qua similiter testiculi tumefiunt, et equo satis periculosum exsistit'. For hernia surgery in humans, particularly the 'rational surgery' of the later middle ages see Michael McVaugh, 'Cataracts and Hernias: Aspects of Surgical Practice in the Fourteenth Century.', *Medical History*, 45 (2001), 319–40.

this more serious herniation can be fatal, depending on the location into which the intestines rupture. They advise that one must tie up and castrate the horse, removing either one testicle or both as necessary, and then manually place the intestines back into the abdominal cavity. Laurentius noted that if the intestines rupture the peritoneum, the abdominal membrane, then this should be deemed incurable in most cases. Laurentius and Theodoric of Cervia also used the specific term 'siphat' or 'sifac', from the Arabic *safāq,* for the peritoneal membrane, which Jordanus simply referred to as 'the skin between the intestines and testicles'.[648]

The *hippiatric* writers often linked mismanagement of the horse's working condition to occupational illness. In his description of *jardus in garecta*, nut sized lumps found on the hocks, Jordanus cited the oppression of immoderate labour alongside poor horse condition as causative factors. In particular, he said that this affects excessively fat horses, as the warming oppression of imprudent labour causes the excess fat to melt before coursing internally down the shanks and forming growths on the hocks. He identified young horses as being particularly at risk due to their delicate and tender legs.[649] Young horses were also thought to be particularly prone to *gallae*: similar, hazelnut-sized growths around the hooves caused by immoderate and excessive riding which would fatigue a younger horse.[650] According to Laurentius Rusius, because of concern over this condition Frederick II avoided breaking a horse to be ridden until it was four years old.[651] Neither of these ailments are described as causing physical impairment to the horse, nor is there any discussion of pain or suffering. The concern over these ailments seems to have been keyed to ideas of aesthetics and deformity, issues which, as has been discussed earlier, were part of the broader paradigm of occupational fitness and merit.

Housing and bodily maintenance

Where Jordanus primarily discussed the consequences of mismanagement, Theodoric of Cervia and Laurentius Rusius both approached the precursors to occupational illness through the development of preventative schemas that functioned

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[648] *Laurentius Rusius.* pp. 188-192, *Theodoric of Cervia*, II, p. 40; for *siphac* see *Ducange*, t. 7, col. 495b.

[649] *Jordanus Ruffus*. p. 69.

[650] *Jordanus Ruffus*. p. 78.

[651] See footnote 606 above.

not unlike the medieval human *regimen*. As Theodoric of Cervia advised, 'it is better to guard health with diligent enthusiasm than to bring remedies to bear for those who are suffering'.[652] These *regimina* were concerned with stabling, inspection, manual handling, washing, nutrition, and seasonality, amongst other things. Theodoric's rules for the conservation of horses ('de regulis conservationis equorum') combined housing, feeding, and other forms of bodily care that related to the maintenance of the 'six non-naturals'; the external determiners of good and ill health in the Galenic medical system.[653] They also encouraged the observation and individuated care of each horse. Theodoric advised that the stable should be constructed of firm oak planks, to make the hooves strong so that they can withstand the abrasions of stones and it should have a gutter to draw urine away from the horse's feet. Each horse should be kept in a separate stall made of boards or quarried stone so that they can be fed separately; ensuring that their diet can be regulated and adapted to respond to arising health issues. It also stopped the 'greediest horses' from devouring their own food before 'invading that of their consorts'. The stables should have a raised hayloft, out of the horses' reach, so that they do not gorge themselves and they should be flooded with as much light as possible otherwise the horses will become accustomed to the gloom and their vision will become impaired in daylight. In summer the air ought to be allowed to move freely through the stable and in winter it should be kept warm rather than hot ('tepere...quam calere'). The stablemaster needed to maintain a clement ambient temperature without making the stable so warm that it encouraged the creation of noxious vapours. Jordanus blamed *galli* and *crepatii*, swellings and lesions around the joints of the feet, on smoky vapours in the stable that dissolve and unleash the humours in the legs and cause them to erupt in tumescent sores.[654] It was the master's constant endeavour to provide and preserve a healthy environment so that such ailments could be avoided.

Stablemasters were encouraged to visit and inspect their horses frequently. Theodoric advised masters to assign several strong men to rub down the whole of the

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[652] *Theodoric of Cervia*, I. p. 40.

[653] For the six non-naturals in medieval medicine, see García-Ballester; and Peregrine Horden, 'A Non-Natural Environment: Medicine without Doctors and the Medieval European Hospital', in *The Medieval Hospital and Medical Practice* (Aldershot: Routledge, 2007), pp. 133–45.

[654] *Jordanus Ruffus*, pp. 78-82.

horse's body each day, this will teach it gentleness as well as conditioning the body and keeping it slender. The masters should feed their horses barley that is fresh and free from dust, mould, and stones; as well as hay, straw, and vetch. All food should be clean and free from foul odours. They should also provide the horses with water that is clear, cold, fresh, and regularly replaced so that there is nothing harmful in their drink that might poison them. An area close to the stables should be cleared and carpeted with soft straw or dry dung so that after drinking the horses can roll on the ground as this encouraged health and warded off illness. In fact, Theodoric saw rolling as a salutary indicator of good health and advised that a horse which did not customarily roll on the ground or was reluctant to lie entirely prostrate should be separated from the herd as it was likely sick in some way.

The *hippiatric* writers were principally concerned with maintaining a horse's ability to work, which is reflected advice on preparing a horse to be ridden, cooling an animal down safely after labour, and when to avoid riding a horse. Marshals had to be sensitive to the seasons and temperature; observe their horses closely and look for signs of pain and exhaustion. They had to diligently manage the horse's cycle of labour and rest; utilising equipment and furnishings appropriately. The *hippiatrics* consistently blamed illnesses and injuries on overwork and poor management. Laurentius Rusius advised that a horse should not be ridden to exhaustion in high summer as the great heat would cause them to become inwardly dry and desiccated; it is better to keep them in a cold and humid place, eating grass and other such things, rather than become in any way fatigued. They should also not be ridden hard late in the evening, as if they are sweating when they return home to eat, the night air will chill their bodies. Laurentius counselled that after being ridden a horse should not be allowed to eat or drink until it has been covered and walked around gently, so that its sweat and heat can be allowed to dissipate. Due its labour the horse's natural heat will have dissipated and its internal organs will be debilitated and restrained, therefore anything it eats will not be digested and will be corrupted by its own accidental heat.[655] Theodoric's post-labour regime was sensitive to the season: in summer he advised that a horse's mouth should be washed out with *pusca* (water and vinegar), in

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[655] *Laurentius Rusius*, p. 60.

winter with brine.[656] He also advised that when a horse was returned to the stable exhausted, the marshal should not remove its saddle immediately, but loosen its girth straps and lead it around gently before placing it in a stall. In summer, if it so hot and bold that it cannot be placed in a stall, the horse should be bathed in cold water all over its body, its testicles and crop, and from its anus to its knees. In winter, if its sweaty and exhausted, the horse should be covered with a blanket before being stalled. In either case, when the horse has cooled down from its exertions the marshal should remove its saddle and saddlecloth and allow it to roll if the horse chooses. Then they should scrub it clean and give it oats and straw or hay to eat and grooming it. The marshal then diligently examines the horse to establish that is has recovered from its exhaustion and any pain; checks its feet for filth or other alien matter and applies an unguent to its hooves to sooth and heal any injuries acquired during its labour.

Whilst these regimens might be thought of as good intentions, there were often tensions visible within the *hippiatric* treatises between the desire to reduce occupational illness and the need for labour. These create a third space between 'health' and 'illness' which might be thought of as 'fitness to work'. These tensions have been explored in other historical contexts which involved large numbers of working horses. In her study of industrial horses in the American Northeast at the turn of the twentieth century, Ann Norton Greene discussed the pressures felt by horse-drawn railway companies. Managers sought to maximise profits through maintaining the condition of horses and calculating what level of horse care was good enough. They joined humane organisations to monitor driver behaviour and horse welfare but were always caught between welfare and labour expectations.[657] As Donna Harraway has argued, 'taking animals seriously as workers' allows questions of cruelty and necessity to be given equal weight.[658] Theodoric reminded his readers that inexperienced riders often seriously injure horses with impatient and imprudent use of the whip and spurs, wishing to compare their horse's speed against their friends' or competing against some opponent with emphatic and foolish stubbornness. He counselled that the 'pater familias' ought to prohibit such behaviour in

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[656] *Theodoric of Cervia*, I. p. 42.

[657] Greene. pp. 182-83.

[658] Donna Jeanne Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008). p. 73.

the most severe terms.[659] However, the *hippiatric* writers often highlighted the tension implicit to maintaining a fit-to-work horse. Jordanus offered unguents that allowed a horse that was suffering from serious lesions to the back to be ridden with a saddle, even though he believe that these lesions were caused by the excessive and regular oppression of an ignorantly fitted saddle. Jordanus and Laurentius both reminded their readers not to bridle a horse with an injured tongue.[660] In the *hippiatric* treatises negligence and necessity often sat side-by-side.

The end of the working life: Sale, Old-Age, and Death

For the medieval horse sale was unlikely to be the end of a working life, but it did represent an interruption to a horse's life-course, a potential shift in circumstances. Preparation for sale could involve significant changes to a horse's care and regimen. The *hippiatric* treatises gave advice on preparing a horse for sale. Theodoric offered a method for bleaching a black horse white using sulphur. Laurentius added to this with a number of other remedies, including one involving the juice of a mole boiled down in lye. Laurentius also offers advice on how to make a chronically sick horse suffering from *cymoira*, a severe pulmonary condition which Jordanus considers to be 'practically incurable', appear well for up to fifty days.[661] The appearance of health would be most useful when trying to pass the horse on to an unsuspecting buyer. There are certainly instances of individuals identified as marshals being reprimanded for attempting to pass off sick horses as fit for sale. For instance, a nefarious *maréchal* by the name of Homède, who in 1327 was arrested for selling a horse to the abbey at Lagny which not only had a defect in the legs which he was able to hide through some artifice but also it was 'pulsivus seu poussif et habebat unum falsum qualerium'.[662] 'Pulsivus' is another pulmonary malady which is very well represented in post-Jordanus hippiatric texts and 'qualerium' seems to be a Middle French loanword, from 'qualité'. This might refer to the horse's generally decrepit condition, but it might also reference some other malfeasance, like attempting to hide the horse's true colour. Although Jordanus's remedies would have been

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[659] *Theodoric of Cervia*, I. p. 42.

[660] *Jordanus Ruffus*, pp. 55, 58-59; *Laurentius Rusius*, p. 120.

[661] *Laurentius Rusius*, p. 134, *Jordanus Ruffus*, pp. 49-50.

[662] Moulé, II, p. 168.

useful to a horse-seller who looked to present healthy stock, his text never engaged in such direct perfidy as Laurentius and Theoderic. Horse dealers and marshals were often closely linked. The courts trusted marshals to appraise horses, such as when Godekin de Houndesburgh was found guilty of murdering Walter Waldesey in and amongst his confiscated chattels were two horses, examined by three marshals.[663] In his account of the *funduq* (slavemarket) in Alexandria, Felix Fabri, a Dominican prior, described the manner in which both slaves and horses were assessed:

> for there is no doctor or physician who can be compared to [the buyers] in recognizing the complexions and conditions of people; for immediately, as they look into the face of someone, they recognize of what value, skill, or fortune he may be....they also have such diligence in recognizing the natures and conditions of horses, so that they may seem to have gained all the skill of the medical art to the full, for they immediately discern in one single look all his flaws and achievements, and of what use, age, and value he may be.

These horse-buyers were adept not only in general manual and visual inspection but also in recognising a horse's complexion, its nature and the type of use it can be put to. In Mamluk Egypt, veterinarians were called upon by horse-buyers to inspect animals and to warrant against malfeasance. Market inspectors (*muḥtasib)* were responsible for overseeing the sale of living and dead animals, including horses, as well as supervising and examining prospective veterinarians.[664] There were also particular industrial problems associated with sale, particularly were travel was involved. A miracle of Simon de Montfort recounts the story of foal being sent to market in Scotland via boat when it becomes terrified by the journey and nearly dies.[665] One of the earliest printed editions of Laurentius Rusius from 1489 included advice on sending horses on long journeys by sea. The text warns that a third of horses are lost during a naval passage, because they are forced to stand and are unable to rest or sleep, meaning that they are unable to urinate or defecate and so are

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[663] Reginald R Sharpe, *Calendar of Coroners Rolls of the City of London, A.D. 1300-1378* (San Bernardino, Calif.: Sidewinder: Distributed by the Borgo Press, 1995), pp. 270–71.

[664] Shehada, pp. 185, 215–16.

[665] *Simon de Montfort*, p. 95.

killed. He treatise advises that if you are unable to make regular landfall, due to storms or the ineptitude of the sailors, then you should administer an enema of mallow, mercury, and olive oil as soon as the horse appears to be in danger of death. This method will reduce the loss of horses to at most one or two in seven.[666]

Old age and death are not dealt with in much detail by the *hippiatric* treatises perhaps because the deontological nature of these texts did not allow for a discussion of occupational death and because gerontological care was not really part of their care-philosophy. There was a *hippiatric* expectation of a horse's lifespan, Jordanus instructed that a well-kept horse should live for twenty healthy years.[667] There was also the sense of a medicalised death, the point at which care had failed. Jordanus provided a number of the signs of imminent death ('de cognitione morborum'), such as when a horse had constant pains in its body along with ears which are entirely cold and sunken eyes. If a horse that is suffering from *anticuorum* is blowing freezing air from its nostrils and has constantly weeping eyes it should be judged practically dead. In a number of cases Jordanus also gave the *ultimum remedium* for particular illnesses – the treatment of last resort, after which nothing further could sensibly be done for the horse.[668] Some signs of mortality were linked to the seasons. A Middle English horse-medicine collection gave mortality advice for a horse that takes ill with pursey after the octave of St. Hilary (i.e 20th or the 28th January). If its condition is so bad:

> that when he coughes wind comes out both afore and behind look at
> his croupe (rump, around the dock) right above the haunches. If there
> are two small pitts the size of a palm that beat up and down as if they
> were small bells give the horse nothing, for no medicine will help
> him.[669]

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[666] Laurentius Rusius, *Liber Marescalcie Equorum* (Speyer, 1489), f. 99ᵛ

[667] See footnote 630 above.

[668] *Jordanus Ruffus*, pp. 48-49, 54-55, 115-117.

[669] Briony Louise Aitchison, '"for to Knowen Here Sicknesse and to Do the Lechecraft There Fore" : Animal Ailments and Their Treatment in Late-Mediaeval England' (unpublished Thesis, University of St Andrews, 2010), p. 99 <https://research-repository.st-andrews.ac.uk/handle/10023/1024> [accessed 3 January 2018].

Jordanus gives neither instructions for medicalised euthanisa nor any implication of of whether and under what circumstances it would be performed. It is however of note that his signs of imminent death largely describe indications of pain and suffering, they do not relate to the occupational expectations of motility, behaviour, or pulcritude that the *hippiatric* treatises reflected. If the *hippiatric* marshal euthanized horses it would – at least according to the rarified archetype that Jordanus constructed – be out of mercy. Whether this is also because of the deontological expecation that Jordanus was developing or whether it relates to veterinary sympathy is difficult to say.

Conclusion

In this chapter I have argued that *De medicina equorum* was not simply a set of remedies or a discussion of equine pathology. Nor was is it a veterinary text in the modern sense, but a holistic stable-masters guide, a discourse on breeding, training, and maintaining a horse suitable for a noble rider. *Hippiatric* texts were primarily focused on preserving a horse's health through careful observation and a diligent approach to housing, nutrition, and labour. The *regimen* that Jordanus and the other *hippiatric* writers advised followed an occupational health paradigm and recognised that injuries and ill-health were most commonly caused by overwork and negligence. However, a noble horse's fitness was not only related to motility and physical capability. The *hippiatric* horse was also judged according to its behaviour, appearance, and its freedom from physical deformity. These issues were increasingly addressed in the treatises that followed Jordanus.

This chapter has demonstrated that analysing Jordanus' *regimen* requires an understanding of the context and social construction of elite horses, they were neither essentialist, dehistoricised animals, nor were they deemed to be akin – or kin – to base horses. Even though Jordanus was presenting an archetype for the noble *equus*, medievalists have yet to really incorporate the *hippiatric* texts into their analyses of the representation and uses of elite horses. Jordanus' discussions of breeding, maintenance, and training relate to contemporary ideas about education, dominion, healthcare, and the noble body. His advice on occupational health and industrial injuries is germane to analyses of military and riding horses. It is also pertinent to studies of human health and care, particularly occupational health, *regimen*, and the non-naturals. There is a great deal of potential for further interdisciplinary analysis of horse-medicine texts alongside other medieval bodily discourses.

Chapter 6: The Horse as a non-human patient

For the *hippiatric* writers and medieval marshals, veterinary interventions meant that the daily maintenance of horses had failed. The horse as an object of care became the horse as patient; the subject of medical intervention. Pursuing the history of the patient is not a methodology which has found much favour in the history of premodern veterinary medicine, which has so far been quite *iatrocentric*. Scholars of veterinary history have tended to focus on the construction and development of *hippiatric* texts and medical theory, professionalisation and occupational identity.[670] Medical pluralism; the dynamics of choice associated in human medicine with the broad panoply of physicians, barbers, charlatans, and tooth-pullers, has not been incorporated into the study of horse-medicine. Veterinary historians continue to present magical and religious remedies as broadly 'unscientific', and as inherently marginal.[671] Charms and prayers are predominantly explained away as methods of last resort or peculiarities.[672] This is partially a philological problem, as there is a distinct need for a decent survey of the first flourishing of *hippiatric* texts in the later thirteenth and fourteenth centuries. There has been an overreliance, particularly in French and Italian scholarship, on editions of a few texts and an unwillingness to actually chart phenomena such as the inclusion of 'magical' elements in horse-medicines.[673] This means that the potential for veterinary choice is flattened and any understanding of the dynamics of choice, which could relate to the needs of the horse or its carer(s), is removed.

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[670] See, for instance, Yvonne Poulle-Drieux, 'Les chevaux malades au Moyen Âge. Leurs maladies, qui les soigne et comment', in *Le cheval dans la culture médiévale,* ed. by Bernard Andenmatten, Agostino Paravicini Bagliani and Eva Pibiri (Firenze: SISMEL, 2015), pp. 145-166.

[671] Yves Lignereux, 'Les Soins Vétérinaires aux Cheveaux au Moyen Âge', in *Les animaux malades en Europe occidentale (VIe-XIXe siècle): actes des XXVes Journées internationales d'histoire de l'abbaye de Flaran, 12, 13, 14 septembre 2003*, ed. by Mireille Mousnier (Toulouse: Presses Universitaires du Mirail, 2005), pp. 41–56. (p. 50)

[672] Bernard Ribemont, 'Science et magie: La therapie magique dans l'hippiatrie medievale', in *Zauberer und Hexen in der Kultur des Mittelalters*, ed. by Danielle Buschinger and Wolfgang Spiewok (Griefswald: Reineke-Verlag, 1994), pp. 175-190 (pp. 189-90).

[673] As discussed in Chapter 2

There have been some brief forays into the 'marketplace' dynamic, particularly in early modern veterinary studies, but they were insufficiently critical and frankly out of date. Louise Hill Curth considered the veterinary marketplace in early modern England in a financial sense, but did not engage with ideas of veterinary pluralism beyond this.[674] Curth described a hierarchy of healers created by the 'commonly accepted model' of the medical marketplace, which placed the London Company of Farriers at its apex and ran down to 'lay healers'; husbandmen, herdsmen and the like. The economically driven model is only one of many choice dynamics that have been discussed in recent years, any of which might be as well suited to the premodern veterinary 'market'. The principal issue facing animal health scholars who wish to apply ideas and methods drawn from studies of the patient is that those studies tend to presume that the patient is human. Agency, choice and a personal (albeit culturally constructed) understanding of and response to illness are often packaged within approaches to the history of the sufferer. These ideas are very relevant to the experiences and representations of suffering horses, but they need to be incorporated within a more complex paradigm involving the horse and at least one human caregiver (+/- additional practitioners). Many of the roles and ideas that studies of the patient have focused and relied upon, require human agency in the case of the horse.

This chapter is influenced by and seeks to incorporate, where appropriate, the approaches to the human patient or sufferer, which (in part) arose following Roy Porter's 1985 research agenda. It also considers approaches to class, agency, resistance and a particular application of 'history from below' employed following the 'Animal Turn' in both modern and premodern contexts. Broader ideas about the construction of animals are influenced by developments in environmental history (though they are, intentionally or not, quite Foucauldian in nature, engaging with the construction of animals through human narration). The field of domestication studies, from behavioural science/ethology, has also been influential, particularly the idea of niche construction:

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[674] Louise Hill Curth, *The Care of Brute Beasts: A Social and Cultural Study of Veterinary Medicine in Early Modern England* (Leiden: Brill, 2010). pp. 53-70.

evolution through development of a biological entity's environmental conditions.[675] Medieval ecological history is also useful, Richard Hoffman describes a two-part methodology in which the natural and human worlds interact and modify each other's material conditions, whilst modifying the construction of each group. Only the human construction of the animal world (and of themselves in relation to it) is given voice.[676] Ecological history is well suited to the discussion of the patient, focussing on the non-human world as a valid field of study, sometimes independent of the human world and yet interdependent with it. Ecological approaches consider both the material existence and condition of non-human animals, and their representation by human actors. In doing so they somewhat bridge the gap between two key analytical trends in the recent history of the patient: the empirically-driven study espoused by Roy Porter and the social construction of the patient, associated with Michel Foucault.[677] The study of the animal sufferer has to consider whether either of these approaches can be suitably applied to the non-human patient.

Roy Porter's 1985 agenda was rooted in the construction of a sufferers' history, largely via the accounts of 'articulate sufferers'. Even though he styled this a history 'from below', Porter privileged the first-person narrations of the health and illness of literate, educated sufferers, whose writings bear weight and influence. His article was predicated on features of the 'clinical encounter', which he presumed reasonably universal, but which can confound the application of his approach to the non-human patient. He defined a rigid binary between the patient and practitioner sets, a relationship of 'patient power and doctor power', which relied heavily on the contested 'medical marketplace' construct. The sufferer is defined as having primary control over the management of their health and illness. They retained the choice to turn to either professional physicians or the extended 'gaggle' of alternative healers, which included the 'horse-doctor', although presumably in

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[675] A good survey of current research questions that incorporates niche construction: Melinda A. Zeder, 'Core Questions in Domestication Research', *Proceedings of the National Academy of Sciences*, 112.11 (2015), 3191–98.

[676] See his introduction to *An Environmental History of Medieval Europe* (Cambridge: Cambridge University Press, 2014).

[677] An overview of these two trends was described by Flurin Condrau in 'The Patient's View Meets the Clinical Gaze', *Social History of Medicine*, 20.3 (2007), 525–40 (pp. 535-36).

a human-medicine role. These choices are presented as individual, but the dynamic of their application is understood largely as part of the almost entirely economically driven 'marketplace'. Perhaps most problematic to this study, Porter had serious misgivings about the Foucauldian model in which the patient is a construction of the modern medical gaze, believing that Foucault's theoretical approach to power dynamics did not apply to 'any but our heavily professionalised society'. The tension between the empirically-driven and constructed approaches to the sufferer is particularly pertinent to a history of the non-human sufferer. Historic animals have an essential existence, but their representation in written sources is always negotiated through human narration.

The specifics of Porter's agenda, to study sufferers who had been 'routinely ignored' by scholars, should have had particular resonance to historians of premodern animal medicine, which was (and remains) dominated by the study of academic institutions, theoretical texts and veterinary professionals.[678] However, the study of the human patient has had little impact on the history of premodern veterinary medicine. This is in part due to fundamental incompatibilities between human patient study methodologies and the study of animal illness, which require, and have largely not received, suitable adaption to marry the two fields.

Porter's call for a sufferers' history, empirically-driven and focusing on the experience and construction of illness from the sufferer's perspective, has led to the development of a striking array of scholarship, which tested and negotiated the boundaries that he set out. Scholars such as David Gentilcore, Robert Ralley and Olivia Weisser have engaged with the sufferers' relationships with the broader medical plethora to consider ideas of medical pluralism, supplementary alternatives to the capitalist 'medical marketplace' paradigm, the somatic and personal experience of illness, and the

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[678] Porter went on to publish a description of the state of veterinary arts at the formation of the Royal Veterinary College in London which has been quite influential to animal and veterinary historians, see 'Animals, Medicine and Society: Historical Perspectives', in *Animal Doctor: Birds and Beasts in Medical History: An Exhibition at the Wellcome Institute for the History of Medicine,* ed. by Ken Arnold (London: Wellcome Library, 1994).

boundaries between medical and non-medical bodies.[679] These avenues all have the potential to enrich the study of medieval non-human patients, whose medical representations often show the hallmarks of the transferability of premodern human medicine. However, they were all developed with the early-modern human patient in mind and will require suitable adjustment. There are no first-person accounts of articulate animal sufferers to draw from and an 'empirically driven' approach to non-human patients is wholly unsuited to a study of texts constructed from a human perspective. The methods used to engage with these sources may be transferrable to other texts, but these will always be written from the perspective of the physician set. The binary that places 'physician' in opposition to 'patient' also does not transfer well to non-human animals. The negotiated power dynamic implied by this approach to the medical encounter presumes at least some choice on the part of the sufferer, whether this is fiscally, morally or rationally motivated. However, no such choice or rationality can be ascribed to the non-human patient, unless by human narration. The pursuit of historic patients' 'agency' can founder similarly quickly when the patient is not human if the differences between animal and human patients are not considered. The 'medical encounter' itself is an imperfect way to consider the health narratives of animals whose survival and material conditions were dictated and engineered by human agency.

Flurin Condrau's 2007 critique of Porter's research agenda foregrounds the latter's emphasis on patient agency: rational and fiercely individual choices. Porter's sufferers are not universally embittered towards medics or medical care. One of his most arresting examples, Samuel Johnson, '*demanded* strong medicine'. Others are more lukewarm towards their doctors but key to Porter's analysis of their behaviour is personal choice, which helps to define the medical marketplace. Fernando Salmón followed this model in 2011 and used personal agency as the key feature of his patient analysis. He described the 'real capacity of the dominant discourse [of medical history] for cancelling

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[679] David Gentilcore, *Healers and Healing in Early Modern Italy* (Manchester: Manchester University Press, 1998); Ralley; Olivia Weisser, 'Grieved and Disordered: Gender and Emotion in Early Modern Patient Narratives', *Journal of Medieval and Early Modern Studies*, 43 (2013), 247–73.

the agency of those upon whom the discourse was predicated [the patient]'.[680] For Porter agency meant choice, exercised via the purse, for Salmón it was about voice, patients contributing to the discourse and narrative of their conditions. Can either choice (agency) or voice (articulacy) be applied to the *hippiatric* horse? This chapter will use a number of methods drawn in part from the social sciences to approach this problem. These include reassessments of the functions of agency and an analysis of non-verbal language and resistance, both taken from Critical Animal Studies, and an interpretation of Actor-Network Theory.

Agency and articulacy

Recent theorists, notably Sandra Swart, David Shaw and Jason Hribal have applied questions of self-determinism and agency (narrative and otherwise) to the developing field of animal history. Influenced by social history's long-held concern with the idea of agency, they sought a methodology that would allow the broader field to take animals seriously. Agency was, as Erica Fudge noted in her seminal proposition on the writing of animal history, the distinguishingly *human* feature that defined all humans as the subjects of history.[681] This stability relied on the animal's lack of agency, creating a challenge for scholars who want to incorporate the non-human into social and cultural history. As Shaw put it: 'to deny agency seems almost to deny historical significance'.[682]

The animal turn's focus on agency is part of a broader embrace of social history's notion of exploring history 'from below'. In this instance, the exploited elements are the non-human fauna (and flora) themselves. Porter's agenda explicitly called for a sufferers' history from below and yet failed to properly contextualise his own examples in terms of their class, status and position. Shaw recognised in reference to his analysis of the agency of Copenhagen, the Duke of Wellington's favoured horse, that he is 'better attested in

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[680] Fernando Salmón, 'From Patient to Text? Narratives of Pain and Madness in Medical Scholasticism', in *Between Text and Patient: The Medical Enterprise in Medieval & Early Modern Europe* (Firenze: SISMEL, 2011), pp. 373-95 (p. 375).

[681] Erica Fudge, 'A Left-Handed Blow: Writing the History of Animals', in *Representing Animals*, ed. by Nigel Rothfels (Bloomington: Indiana University Press, 2002), pp. 3–18 (p. 13). The assertion is originally from Marx, via E.M. Thompson.

[682] David Gary Shaw, 'A Way with Animals', *History and Theory*, 52.4 (2013), 1–12 (p. 7).

the archives than almost any contemporary nineteenth-century agricultural labourer or her husband or child'.[683] When it comes to historical accessibility status and fame matter, and these are conferred on non-human animals (usually) through human agency. Just as Porter failed to contextualise his sufferers, all studies of animals should not be broadly assumed to be 'from below'.

Hribal describes two major failings in the early expressions of the animal turn: a failure to separate agency from class, and a failure to separate social history from history 'from below'.[684] As he defines it history from below is a methodology applied to underrepresented groups, focussing on two interconnected factors: agency and class, which seeks to represent these groups not only as subjects, but as historical actors. Hribal speaks of animal resistance as an active form of agency. Animals are broadly understood based on their interaction with humans, domesticated and yoked animals doubly so. The animal provision of labour was, to Hribal, a negotiation. The water fountains and other provisions for working animals in nineteenth century American cities, the increasing level of legal protection afforded to animal labourers, and popular narratives from the USA and Ireland surrounding the correct (or most effective) treatment of animals all represent the negotiated provision of labour. Hribal represents this as the material and cultural evidence of non-human agency.[685]

Paul Patton developed an interesting alternative dealing with the languages of power, resistance and negotiation implicit in the training of horses. He presents an ambiguous view of domestication, in which the methodology of horse-breaking can either negotiate with or seek to break-down and overcome a horse's resistance, its agency.[686] Sandra Swart and Gervase Phillips have also attempted to develop the horse as historical agent, in the context of the Second South African War (1899-1902) and the

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[683] Shaw, 'A Way with Animals', p. 9.

[684] See also *Representing Animals*, ed. by Nigel Rothfels (Bloomingon: Indiana University Press, 2002).

[685] Jason Hribal, 'Animals, Agency, and Class: Writing the History of Animals from Below', *Human Ecology Review*, 14.1 (2007), 101–12.

[686] Paul Patton, 'Language, Power, and the Training of Horses', in *Zoontologies: The Question of the Animal*, ed. by Cary Wolfe (London: University of Minnesota Press, 2003), pp. 88–99.

American Civil War (1861-65).[687] The negotiated existences of working animals and their resistance as a (silent) form of agency have particular relevance as a method of interpreting medieval horse-medicine traditions that focused heavily on horse-breaking, labour and behavioural control. This chapter will delineate and explore the boundaries of 'occupational health' within medieval horse-medicine. Was labour functionality the only (or primary) intention of horse-care? What about emotion, altruism, affection? Hannele Klemettila argued that Gaston Phebus' *Livre de chasse* has a particularly emotionally sensitive approach to medicine, handling, and in fact to dogs in general. She believed that this presages the dog's modern position as 'man's best friend'.[688] Of course, this might be representative of the nature of such courtly didactic writing through which Gaston was presenting his own mastery and benevolence.[689] An emotional history of the equine patient needs to consider the reactions to illness of the animal's carer and the somatic or emotional experience of the animal, as they were represented through human narration.

Actor-Network theory provides one method for investigating the agency and historical importance of non-human animals. By providing equal weight to the social, animal, and material elements that form network-domains, Actor-Network Theory allows for an interpretation of historical texts, narratives, and events that does not exclude the animal or presume that it lacks historical importance and agency.[690] The horse, the shoe, the hammer, and the marshal are all actors in a network which is 'formed and created by

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[687] Gervase Phillips, 'Writing Horses into American Civil War History', *War in History*, 20 (2013), 160–81; Sandra Swart, '"The World the Horses Made": A South African Case Study of Writing Animals into Social History', *International Review of Social History*, 55 (2010), 241–63.

[688] Hannele Klemettilä, *Animals and Hunters in the Late Middle Ages: Evidence from the BnF MS Fr. 616 of the Livre de Chasse by Gaston Fébus* (New York: Routledge, 2015). pp. 128-29, 150.

[689] Beusterien offers an interesting example of mastery and benevolence through dog-ownership in *Canines in Cervantes and Velázquez: An Animal Studies Reading of Early Modern Spain* (London: Routledge, 2016).

[690] One of the seminal studies is Bruno Latour, *The Pasteurization of France* (Cambridge, Mass.: Harvard University Press, 1988). For a more recent reappraisal applying A-NT to the urban environment see Bert De Munck, 'Re-Assembling Actor-Network Theory and Urban History', *Urban History*, 2016, 1–12.

the other actors'.[691] Actor-Network Theory creates a flat ontology in which each element is given equal weight, as the removal of any one actor will collapse the whole system. Because the *hippiatric* horse is, in essence, a working animal the framework provided by A-NT can be suitably applied to the industrial environment, and the particular interaction of agents which influenced the health, status, and wellbeing of industrial animals. The *hippiatric* texts, various care-givers, and industrial implements were all determiners of equine health. Because the horse was an industrial animal its states of health, impairment, and other embodiments of value were often constructed around the idea of fitness to work.[692]

This question of 'fitness to work' speaks directly to the idea of patient agency. The observation and assessment of occupational health and suitability come from the human, who fits cautiously within the practitioner set. They are the marshals, grooms, owners, and riders who provided care whilst defining the horse's status - fit to work, suitably attractive and free from blemishes, appropriately behaved. If we only consider this perspective, then we run the risk of presenting only the 'practitioner's view'; a history of the human intervention in the health of non-human animals. Shifting from this perspective presents problems, particularly in accessing the narratives of 'voiceless' subjects. This is an ontological issue that has been dealt with at length by scholars contributing to 'the Animal Turn', which might be said to view 'voice' and 'agency' as two of its principal guiding or organising questions. Andrea Pooley-Ebert explored the quite separate challenges in presenting animal agency and investigating the voice of 'voiceless' creatures. The expansion of functions of agency (material agency, historical agency, species agency etc.) has allowed (or was constructed to allow) animals to have historical significance. Sarah McFarland and Ryan Hediger argued that as human intentionality and omniscience can be questioned, either animal agency should be expanded or human

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[691] Andria Pooley-Ebert, 'Species Agency: A Comparative Study of Horse–Human Relationships in Chicago and Rural Illinois', in *The Historical Animal*, ed. by Susan Nance (Syracuse: Syracuse University Press, 2015), pp. 148–65. (p. 147)

[692] For the correlations of goodness with beauty and evilness with ugliness see Hannele Klemettilä, 'The Physiognomy and Mental Equipment of a Late Medieval Hangman: A Chapter in Anthropological History', *Fifteenth Century Studies*, 31 (2005).

agency diminished.[693] However, even scholars who engage with the ideas of animal sentience in their work, such as Erica Fudge, have often found it difficult to access the experiences of historical animals, because of the problems inherent in studying non-literate (if not unvoiced) subjects.[694] Andrea Pooley-Ebert proposed a system of 'species agency', the specific behaviour of non-human actors, as categorised by their species. So, equine agency is 'defined by the horses themselves - their behaviour, actions, and interactions with other historical actors'.[695] This, rather idealised, method relies on analysing the particular behaviours of historic horses through the lens of modern veterinary behavioural science and equine psychology. It privileges those narratives of 'resistance, compliance, and compromise' that are amenable to a modern audience and does not consider how historical horses were constructed and understood.[696]

Pain, Care and Behavioural Control

The *hippiatric* texts engaged with pain as a symptom, a cause of illness, and as a method of behavioural control. The *hippiatric* writers attempted to reduce the painful aspects of illness and to mitigate, where possible, the painful experience of treatment. Pain was also used as method of control, to reduce or correct *mali vitia* - evil vices or bad behaviours. Pain and suffering were key parts of animal health narratives: as part of the overall pathology of an illness, indicators of the dire condition of a horse, or explanations for lameness and fury. From the perspective of the practitioner, pain could both diminish

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[693] Sarah E. McFarland and Ryan Hediger, 'Approaching the Agency of Other Animals', in *Animals and Agency* (Leiden: Brill, 2009), pp. 1–20 (pp. 3–8).

[694] Erica Fudge, *Perceiving Animals: Humans and Beasts in Early Modern English Culture* (Houndmills, Basingstoke, Hampshire; New York: Macmillan Press; St. Martin's Press, 2000). particularly chapter 3; Fudge, 'A Left-Handed Blow'.

[695] Andria Pooley-Ebert, 'Species Agency: A Comparative Study of Horse-Human Relationships in Chicago and Rural Illinois', in *The Historical Animal*, ed. by Susan Nance (Syracuse: Syracuse University Press, 2015), pp. 148–65 (p. 153).

[696] Pooley-Ebert, 'Species Agency: A Comparative Study of Horse-Human Relationships in Chicago and Rural Illinois'. (p. 163). A useful comparison can be drawn with Paul Patton, 'Language, Power, and the Training of Horses', in *Zoontologies: The Question of the Animal*, ed. by Cary Wolfe (London: University of Minnesota Press, 2003), pp. 88–99.

the utility or fitness for work of an animal and be a useful tool for correcting behaviour. The practitioner - the marshal, carer, owner, or *hippiatric* writer - has the power to define the norms of the animal's existence; the expectations of pain and suffering, or freedom from the same. This situation benefits from recourse to ideas of biopower, formulated by Foucault to describe the methods and structures by which people are controlled, from the population level down to the individual's body and by which people control themselves through self-control and discipline. Biopower was originally constructed to describe the shift from sovereign power - the juridico-legal ability to control people through killing, removal of life - to government through the regulation and discipline of populations and individual bodies. This form of control - concerned with public health, dwelling, diet, childcare – had been thought not possible under sovereign power, based on the negative view of pre-modern communities. However, the more recent flowering of interest in medieval public health and pollution – most prominently Guy Geltner's 'healthscaping' approach to Italian towns and cities – has made it clear that pre-modern communities were engaged in these activities.[697] Biopower is fundamentally about the 'taking charge of life', controlling – and crucially, changing – both the population and the individual through access to the body.[698]

Thom Van Dooren discusses the link between pain and control over animals at the population level, in his study of the 'violent care' of captive whooping cranes during late 20th and early 21st century breeding programs. Van Dooren's description of artificial insemination procedures, which were deeply stressful to both male and female birds, speak to the inherently dominant potential of care, which can be an implicitly violent and painful act.[699] For the whooping crane this violence is justified at the species level as the

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[697] G. Geltner, 'Public Health and the Pre-Modern City: A Research Agenda', *History Compass*, 10.3 (2012), 231–245.

[698] Chlöe Taylor, 'Biopower', in *Michel Foucault: Key Concepts*, ed. by Dianna Taylor (Durham: Acumen, 2011), pp. 41–55.

[699] Thom van Dooren, *Flight Ways: Life and Loss at the Edge of Extinction* (New York: Columbia University Press, 2014). pp. 108-116.

birds face extinction due to hunting and wetland loss.[700] For the *hippiatric* horse, which was also controlled and adapted at the individual and population level, violence is also justified as an essential form of care. Laurentius Rusius, described the behavioural dysfunction *restivus* as a vice which when picked up in the horse's youth was 'not easily lost'. Quoting Horace, Rusius stated that 'the jar will long retain the odour of the liquor with which, when new, it was once saturated'.[701] The persistence and seriousness of the defect, justifies various painful remedies. Care and violence are neatly entangled.

Pain was commonly used by the *hippiatric* texts as a symptom of illness. The four types of *dolor*, first described by Jordanus, each involve great suffering and 'torsiones multimodes et diversas' which cause the horse great distress, such that if they are not treated they will fling themselves onto the ground. The form of *dolor* caused by excessive eating causes the horse such pain that they are unable to stand upright on their feet, but again constantly throw themselves to the floor. These are quite visible signs of pain, but they speak to an effort to understand the experience of the animal, the patient. When, in 1290, a horse belonging to Edmund Mortimer, which had lain dying from a certain illness from matins to nine, was measured to Thomas Cantilupe in supplication, it was on account of its pain, not its illness.[702] A miracle attributed to St. Bartholomew describes a cow in great and unusual pain during calving. The cow was tortured with internal pains and grievously afflicted in its vitals, until the godly woman who owned it prayed to Bartholomew that the animal be restored to them sound. The alleviation of pain and suffering indicated the success of the miracle. Again, pain as a symptom of medical distress is recognised by the narrator as an important part of the animal's experience of health and illness. In this instance the suffering of calving might have been held in moral comparison to the woman who, though bound in the bond of wedlock, had 'given her mind to continence'.[703]

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[700] Van Dooren refers to this as 'species-thinking', a process which also led to colonies of quail being set up around whooping crane colonies as 'guinea pigs', to test foodstuffs for safety, and turkeys being set up around potential crane release sites to check for disease. p. 115

[701] *Laurentius Rusius*. p. 384. Classical allusions are not common amongst *hippiatric* texts, even medical references.

[702] 'cum de hoc dolens, ipsum Dei Famulo mensurasset', *Thomas Cantilupe*, p. 673

[703] *Bartholomew*, pp. 26-27.

The *hippiatric* writers attempted to minimise pain and suffering, through alternative or targeted treatments. In his section on *pulmonus* - putrefied swellings on the back, caused by the oppression of an unsuitable saddle - Jordanus describes two remedies: a surgical intervention and the application of caustic chemicals. He explains that whilst it is necessary to entirely remove the putrefied flesh, it is sometimes more suitable to treat the horse with resalgar than the knife, in order to reduce the pain to the patient. The copyist of a late thirteenth century Jordanus manuscript may well have had the reduction of pain and suffering in mind when they offered an alternative treatment for fistula that used the powdered remains of a green meadow frog, collected whilst saying three pater nosters, and dried out in the sun. The principal remedies Jordanus offered for fistula involved surgery or realgar mixed with the saliva of a fasting man. Surgery can be hazardous if the affected area is delicate or threaded with veins and ligaments, realgar can be extremely dangerous if used without due care. These three remedies were organised according to concerns over bodily harm as well as the amount of pain inflicted on the horse.

Pain was also used to correct perceived behavioural dysfunctions. During their discussions of goodness and virtue, the *hippiatric* writers often described vices - deformities and behaviours deemed ugly, or unsatisfactory. One of the most common behavioural dysfunctions described was *restivus*. This vice is not present in Jordanus' treatise, nor are any other remedies for behavioural dysfunction, but it is found in a number of the Latin *hippiatric* texts that arose in the late thirteenth and early fourteenth centuries.[704] It is also a common feature of the group of anonymous *practica* or *chirurgia equorum* texts, which potentially pre-date Jordanus and may have influenced the later *hippiatric* treatises.[705] Theodoric of Cervia described *restivus* (or 'ropio') as a rebellion in which the horse refuses to move when commanded, or kicks out with both feet.[706] The fifteenth century Middle English Boke of Marchalsi describes young horses becoming 'restyff', kicking out with their back feet and 'wexe evel entyched' (learning evil habits).

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[704] *Liber Ipocratis*, p. 159, *Laurentius Rusius*, pp. 382-386.

[705] 'Albert's Contributions to or Influence on Vernacular Literature', in *A Companion to Albert the Great: Theology, Philosophy, and the Science*, ed. by Irven M. Resnick and Dagmar Gottschall (Leiden: Brill, 2013), pp. 723–57 (p. 732).

[706] *Theodoric of Cervia*, III, p. 34.

An anonymous 13th century *practica equorum* refers to Laurentius Rusius advised that foals would often become full of vices and restive due to poor tuition whilst they are being broken. When being ridden the horse will stand still and refuse to go on.[707] An anonymous 13th century *practica equorum* states that when a young horse first carries a saddle and a man it must learn through wise tutelage, or else it will acquire vices like 'retrogradacio, which is known in vernacular French as restivacio and in Lombard as reop'.[708]

The horse-medicine treatise translated from Arabic into Latin by Moses of Palermo (fl. 1277) advised that if the horse lashes out and kicks with either its front or back legs and you strike it back harder, then it will become even worse. This version diverges from a similar account in Theodoric of Cervia, who omitted the implied warning and advised (along with most of the descriptions of *restivus* including that of the Moses of Palermo), that a restive horse which kicks can be treated by striking it near the hoof with a stick and burning its muscle with an iron ring.[709] Most treatises advised that *restivus* should be treated through painful aversion therapy. Several describe similar procedures involving fixing a cord around the testicles and pulling sharply when the horse misbehaves. 'The sudden unexpected pain in the testicles should put an end to [the behaviour]'.[710] This method is used in a 15th century Middle English horse-medicine text, with the exception that once the cord is attached a child is placed in the saddle, who rides the horse 'spurring him well', and pulls the cord when the horse is restive.[711]

Using a child in this fashion is reminiscent of a miracle attributed to James Salomini from the early 16th century. A boy of around ten years, filled with the levity of youth, tried to ride an unbroken horse belonging to a doctor in Forli. When the boy placed his foot in the stirrup (literally 'noose', so perhaps a more basic contrivance) the horse became very afraid and leapt, giving in to its fear. The boy responded by pulling on the noose, further terrifying the horse, which kicked out at the boy, beating him half to death. The particular hazards that a horse might present to a child are quite striking, and

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[707] *Laurentius Rusius*, pp. 382-84.

[708] London, British Library, MS Additional 35179, f. 20ᵛ

[709] Modena, Biblioteca Estense, MS Lat. 111, f. 72ᵛ

[710] *Theodoric of Cervia*, III, p. 34

[711] Cambridge, University Library, MS Ll I 18, f. 67.

contrast with the need, as discussed by the *hippiatric* texts for a more experienced hand in breaking horses.[712]

Other methods for dealing with *restivus* include a bridle with a large bit and strong metal chains and spurs with copper-covered rondels, used alongside a squire or groom who carries a lit torch to discourage evil behaviour.[713] Another 15th century Middle English horse-medicine treatise constructs 'restyve' as a biochemical illness. It advises that an awl should be put through the dock of the horse's tail (the dock having first been clean-shaven) to form a cross, and three thorns from a hawthorn should be put through this cross and then bound with linen. After three days the linen and thorns should be removed, at which point water will flow from the wound 'which was the cause of the sickness'.[714] Laurentius advised that very old *restivus* could be dealt with using a wicked-sounding iron implement the length of a forearm, with three curved, very sharp prongs. When the horse wished to stand, or retreat, it was struck with the instrument, whilst being spurred and whipped, until it acquiesced. This image is reminiscent of the 'furious horse', pierced with a fork by the *yconomus* of Godmanchester.[715] Many of these procedures present methods of dealing with what might be considered an unwanted excess of animal agency. The unruly horse 'is unwilling to proceed', or 'wishes to stand'. These desires are constructed as 'rebellion', as unhelpful, quarrelsome, and troubling behaviour.[716]

The *hippiatric* writers dealt with a number of other behaviours in ways which indicate they were inherently problematic or undesirable. Theodoric and Moses of Palermo each describe methods for dealing with horses which bite, which delight in water, and which are timid or afraid; most of which are dealt with through aversion, often by violent means. Moses of Palermo's treatise advised that a horse that jumps into water should be struck vehemently. Theodoric added that an alternative is for a strong and honest squire to take the horse by the reins and hold its head underwater. The water will enter its ears, the squire should beat it around the head, and the horse will be greatly

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[712] *James Salomoni*, p. 467.

[713] Modena, Biblioteca Estense, MS Lat. 111. f. 72ᵛ, *Liber Ipocratis*, p. 159.

[714] Loen-Marshall, p. 353.

[715] See footnote 6443 above.

[716] *Laurentius Rusius*, p. 384, *Theodoric of Cervia*, III, p. 34.

oppressed.[717] In quite sharp contrast, a fearful horse was dealt with through acclimation. The horse was led by night alone through fields and then by day through planes and bustling places where carpenters and smiths worked, where animals were skinned, and their hides prepared. This implication is that the animal would become used to troubling sensations, though the specific inclusion of skins and tanners feels like it might have been intended as a warning to problematic animals. Moses of Palermo adds that the horse's stable ought to be well lit 'by many lights'.[718] These processes are similar in form to Laurentius Rusius' suggestion that a young horse, during its training, should be led through 'noisy and chaotic' places, cities and especially places were smiths are working. This is presumably so that they will become used to the noises of the smithy, an integral part of their later life. Laurentius advised that the young horse should not be coerced with the stick or the spurs, which will lead to it always associating noise and chaos with stress and the lash. Instead, they should be encouraged through these places with a soft whip and coaxing words.[719]

Theodoric instructed that a horse that bites should have its teeth filed and then drilled with a *terebellum* - a small instrument for boring holes. The intention is that the air passing through the holes in their teeth will preclude them from biting. Alternatively, one can remove their *scallones* - their stallion teeth - or, if they have no *scallones*, one should remove their *planas*, their molars. Jordanus and most of the other Latin *hippiatric* writers discuss the removal of both the *scallones* and *planas* as part of a horse's domestication.[720] Laurentius advised that this has the effect of acclimating the horse to a large bridle and bit, by creating a tender and vulnerable spot in their mouth. This wound will 'soon break', meaning that the horse will accept the larger bridle due to the tenderness and pain, and will therefore be better suited to being ridden. Reading these procedures together raises the question; why were the biting horse's *scallones* or *planas* not already removed? This may, like much of the *hippiatric* schema, have been a set of guidelines or beneficial procedures which were not all followed even within the confines of the *hippiatric* discourse. The removal of teeth, both as a training mechanism and as a remedial measure, along with

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[717] *Liber Ipocratis*, p. 160; Theodoric, III, p. 36.

[718] *Theodoric of Cervia*, III, p. 36; *Liber Ipocratis*, p. 161.

[719] *Laurentius Rusius*, pp. 68-72.

[720] *Jordanus Ruffus*, pp. 15-17; *Laurentius Rusius*, p. 76.

the other measures for dealing with bad behaviour, indicate that violence was often a key part of the training and maintenance of the *hippiatric* horse. However, it was by no means universal and there were less violent methods for dealing with behavioural dysfunctions.

As part of his approach to *restivus*, Theodoric suggested the following:

> For eleven days or more do not ride the horse or lead it out of the stable but feed it well and handle it sweetly. Then, have an experienced rider mount the horse with whip and spurs and ride amongst unusual horses so that it shall meet with them several times; this should be done frequently over the first, second and third days; so that they will become trained little by little due to it considering the excessive labour and weariness of its accustomed evil.[721]

Laurentius advised that the horse should be stabled for forty-one days before being ridden. The focus in this procedure is to deal with the same troubling, 'bad' behaviour but through pleasant treatment and the ministrations of an experienced rider. This seems to relate to the suggestion, particularly voiced in Laurentius' text and in the Middle English Boke of Marchalsi, that *restivus* can be attributed in part to poor treatment of young horses. Laurentius refers to the education of a bad tutor; 'malum eruditorum', creating viceful and restive horses which are difficult to reeducate. The Boke of Marchalsi notes that a young horse should be ridden without spurs, otherwise he will 'become restyff if he is smote with spurs and caste [kick] behynde, and wax evel entechyd [learn bad habits]'.

Other non-violent remedies or methods for dealing with problematic behaviour include a charm from the Latin horse medicine of Jacopo Doro. This forms a short addendum to an early 14th century Latin copy of Theodoric of Cervia's equine treatise. Judging from the contents of the text (references to Jacopo are added to the Theodoric treatise) these two treatises were either written for or by Jacopo himself. The addendum includes a remedy for a horse which will not permit you to place its bridle on it:

> Hold its bridle in your hand and stand in front of the horse. Say these vernacular words: Without the justice of those who wanted to name

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[721] *Theodoric of Cervia*, III, p. 34.

the creator saviour of earth and heaven. My Lord, we have gone both willingly and unwillingly for the same and to the same we have returned.[722]

Code-switching in charms is reasonably common, particularly with the inclusion of Latin, Hebrew, or other words of power. Jordanus used a system of code-switching in his text, which descended through the *hippiatric* tradition, he included a Latinised version of the 'vernacular' name for each illness that he discussed. This charm is not dealing with a specific named or pathologised vice, like *restivus*, but the overall sense of a procedure to deal with querulous behaviour remains. This behaviour questions the authority which exists between species and diminishes the productive functioning relationship between man and horse. A Middle English charm from a partially anonymous 15th century remedy collection follows a similar pattern. This remedy was intended to 'make an hors stande stille' and was purported to be 'the same charme that Seynt Loye hadde when þat he first hors shodde'. The utility of a charm to make a horse stand still is perhaps obvious, and certainly extended beyond shoeing horses.[723] The imploring sense of a charm, a command in the purest sense but less *commanding* than the stick, is important here. It is possible that the context helps to explain the distinction between violent and non-violent methods in this instance. The marshal, in the sense of the shoer, is in a lower-status position than Jordanus as *miles in marescalcus* or the other *hippiatric* treatise writers. Status might have allowed for the sort of authority which brings violence. However, charms and other non-violent methods of dealing with wildness and problematic behaviour are relatively common additions to *hippiatric* manuals, confusing the distinction between high- and low-status users of veterinary texts.

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[722] 'Sença iustitia de voleti inducere lo creatore salvatore del cielo e della terra. Signor con volonta et sença pro ipso seti et ad ipso tornati'. Venice, Biblioteca Marciana, MS Latin VII 25, f. 32ᵛ

[723] For human and animal medical charms see Olsan, 'Charms and Prayers in Medieval Medical Theory and Practice'; Jonathan Roper, *Charms, Charmers and Charming: International Research on Verbal Magic* (Palgrave Macmillan, 2009).

An English manuscript of an anonymous Latin horse-medicine which resembles part of Albertus Magnus' horse treatise includes a remedy, in a different, possibly later, hand for dealing with 'any wild beast':

> Say these words in its right three times and [it will] go where you will. Abraham lead you, Isaac bind you, Jacob tame you. Remember the lord David and all his gentleness. Like the horses of Rayat, write one of these names on each foot, namely, Ison, Tyson, Euphrates, Tigris[724]

The first half of the charm was then translated into English by a much later hand. Lea Olsan noted that the multiple languages of charms relate to their dual identity, as reflections of both church magic and verbal healing practices they often incorporated Latin and various vernacular languages.[725] The wild beast, in context, is likely the horse itself and its wildness (*indomita*) could refer to the sorts of problematic behaviours discussed earlier.

Raging horses are commonly the objects of miracles and other healing narratives, for instance the 'expensive horse' belonging to John de Lacey, which raged with such insanity that human remedy was lacking.[726] A story in the *Annales Paulini* from 1330 highlights the potentially catastrophic consequences of an untamed horse. Due to some confusion following a tournament, Edward III was left riding his destrier, which had become wild ('indomitus esset') during the games, rather than being provided with a palfrey. The king narrowly avoided being dragged into the river by his horse, which having been heated up by the excessive labour of the tournament, flung itself into the river to bathe.[727] Fear of such events, plus the social opprobrium associated with an untamed, misbehaving, or wild horse perhaps explain the broad but often violent measures employed to control horses. This may also speak to the medieval sense of authority and control. The languages of domination, the correction of rebellion through violence, and education sat side by side in the *hippiatric* tradition. Poorly broken or trained horses are

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[724] Oxford, Bodleian Library, MS Douce 88, f. 284ᵛ

[725] Lea T. Olsan, 'The Language of Charms in a Middle English Recipe Collection', *ANQ: A Quarterly Journal of Short Articles, Notes and Reviews*, 18.3 (2005), 31–37 (p. 32).

[726] *Thomas Cantilupe*, p. 684.

[727] William Stubbs, *Annales Londonienses and Annales Paulini* (Nendeln: Kraus, 1965), pp. 352–53.

described alongside horses suffering from *mania*, *furiosa*, and *rabies*. Laurentius and Theodoric both offer an anaesthetic concoction to facilitate surgery on a horse which is 'furibundo et impatiens' - enraged.[728] All of this is entangled with, described using the same terms as, and dealt with in a similar manner to behaviours simply deemed bad, such as a horse biting, kicking, raising its head, or making noise.[729] For the non-human patient, the focus of *hippiatric* medicine, care could mean the violent removal of agency.

The horse as (in)articulate sufferer

For horses, who are largely described by the *hippiatric* texts as silent, body language and other non-verbal modes of communication were the clearest method of communicating agreement, resistance, and suffering. They are also the clearest example of horse articulacy as patients. Through body language and complex visual indicators, horses could demonstrate that they were in pain. The *hippiatric* writers recognised the potential for animal language as a diagnostic tool. They recorded these non-verbal signifiers, in part based on observation, and used them as a basis for assigning treatment. Fernando Salmón has discussed the 'verbal and non-verbal' means by which the medieval human patient expressed their pain to the physician, and the layers of taxonomic authority in which the physician embedded the patient's unavoidably subjective experience.[730] The *hippiatric* texts do not use the complex theoretical language of pain developed by the *auctoritates*, the more direct lexicon of the surgeons is perhaps a more suitable comparison. Both systems were based, arguably, on the ability to *talk* to the patient, regardless of how subjective their experiences were. This is a privilege that the *hippiatric* writers and marshals were denied. This is not to say that medieval people lacked an understanding of non-verbal language. Later medieval confraternity drama manuscripts used gesture to stimulate the reader to imagine the performance.[731] Kirsten

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[728] *Laurentius Rusius*, p. 382 is a somewhat developed version of *Theodoric of Cervia*, III, p. 44.

[729] *Theodoric of Cervia*, III, p. 36.

[730] Fernando Salmón, 'From Patient to Text? Narratives of Pain and Madness in Medical Scholasticism', in *Between Text and Patient: The Medical Enterprise in Medieval & Early Modern Europe* (Firenze: SISMEL, 2011), pp. 373–95 (p. 387).

[731] Robert L. A. Clark and Pamela Sheingorn, '"Visible Words": Gesture and Performance in the Miniatures of BNF, MS Fr.819-820', in *Parisian Confraternity Drama of the Fourteenth Century: The*

Wolf has demonstrated the importance of gesture and in particular facial signs as emotional signifiers in Iceland saga and *þættir*, although she did not link these passions to suffering or pain. Various forms of monastic sign language, whether to enable impaired monks or because of vows of silence, were also a commonplace in medieval religious houses.[732] The *hippiatric* writers' sensitivity to equine non-verbal signifiers reflect a broader medieval willingness to 'listen' to silent language.

Animal behaviourists have demonstrated that horses are aware of the knowledge state of their human caretakers and will alter their visual and tactile signals accordingly. Outside of humans, this form of complex social cognition is more commonly associated only with non-human primates and dogs.[733] When approaching historical narratives of equine pain, it is important to bear in mind that the horse is a cognitively complex active agent. Esther Cohen argued in her 2010 monograph *The Modulated Scream* that pain is unknowable, much as historians have struggled to access the experiences of animals as

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Miracles de Nostre Dame Par Personnages., ed. by Donald Maddox and Sara Sturm-Maddox (Turnhout: Brepols, 2008), pp. 193–217; Corneliu Dragomirescu, 'Gestures as Performance Markers in French Illuminated Mystery Play Manuscripts: The Case of the Vengeance Nostre Seigneur in MS Arras, Bibl. Mun. 697', *Viator*, 41 (2010), 271–300.

[732] Scott G. Bruce, 'Monastic Sign Language in the Cluniac Customaries', in *From Dead of Night to End of Day: The Medieval Customs of Cluny / Du Cœur de La Nuit à La Fin Du Jour: Les Coutumes Clunisiennes Au Moyen Age*, ed. by Isabelle Cochelin and Susan Boynton, Disciplina Monastica: Studies on Medieval Monastic Life / Etudes Sur La Vie Monastique Au Moyen Age (Turnhout: Brepols, 2005), pp. 273–86; Gábor Klaniczay, 'The Sign Language of the "Pauperes Christi"', in *The Sign Languages of Poverty: International Round-Table Discussion, Krems an Der Donau, October 10 and 11, 2005.*, ed. by Gerhard Jaritz, Forschungen Des Instituts Für Realienkunde Des Mittelalters Und Der Frühen Neuzeit: Diskussionen Und Materialien, 8 (Vienna: Österreichische Akademie der Wissenschaften, 2007), pp. 201–20; Debby Banham, '"To Keep Silence Following the Rule's Command": Bishop Æthelwold, Reforming Ideology and Communication by Signs', in *Leaders of the Anglo-Saxon Church: From Bede to Stigand.*, ed. by Alexander R. Rumble, Publications of the Manchester Centre for Anglo-Saxon Studies, 12 (Woodbridge: Boydell, 2012), pp. 129–45.

[733] Monamie Ringhofer and Shinya Yamamoto, 'Domestic Horses Send Signals to Humans When They Face an Unsolvable Task', *Animal Cognition*, 2016, 1–9.

'voiceless' subjects.[734] In an oft-quoted discourse on animal cruelty, jurist and philosopher Jeremy Bentham (1748-1832) argued that 'the questions is not, Can they *reason*? nor, can they *talk*? but, Can they *suffer*?'.[735] With the advantages of behavioural science it seems evident that horses not only suffer, but also communicate and adapt. For the purpose of this study the question is the extent to which Jordanus was aware of equine non-verbal communication and incorporated it into his treatise. Furthermore, did the *hippiatric* horse's expression of pain make it an articulate sufferer? Finally, did a refusal to work in the face of lameness constitute an expression of agency?

Jordanus used pain and particularly lameness as symptoms indicating a number of illnesses. In his discussion of 'infuso vel infundito', he described three symptoms: limping in one or all feet, pain in lifting the feet, and difficulty walking. Jordanus associates lameness with exhaustion and overwork, particularly when a horse is either too young to be ridden or overburdened (chs. 34-35). He also described lameness caused by accidental injury (chs. 38 and 42) and ailments that, whilst not explicitly causing lameness, 'cause the patient to suffer vehemently in their steps'. (ch. 45) How is Jordanus suggesting that this suffering should be detected? What are the symptoms of pain and suffering that accompanied, and did these constitute articulacy?[736]

Jordanus presented eight methods for recognising forms of lameness as a single disorder, which can be read alongside his discussions of lameness as a symptom of other ailments. This list differentiates between limping in the front and rear legs as well as identifying infirmities of the hoof, legs, and hips which were the root cause of lameness. Jordanus used three key terms for pain and the act of suffering; *dolor, patitur,* and *aggravatione.* These may well imply different types of discomfort or at least different presentations of pain. Jordanus also provided a number of other symptoms as a method for differentiating between forms of lameness as an aide to accurate diagnosis. As well as limping in one or more feet, a lame horse might have feet that are painful to lift, demonstrate pain in walking, or be walking in short, closely-set steps. It might be walking

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[734] Esther Cohen, *The Modulated Scream: Pain in Late Medieval Culture* (Chicago: University of Chicago Press, 2010).

[735] Jeremy Bentham, J. H Burns, and H. L. A Hart, *An Introduction to the Principles of Morals and Legislation* (Oxford: Oxford University Press, 1996).

[736] *Jordanus Ruffus*, pp. 71-73,76-78,87-88.

only on the point of the hoof or only pressing one of its feet completely on the floor.[737] These symptoms all required a keen observation of the horse to recognise abnormalities in its movements and to identify pain. Lame horses do not usually cry out or vocalise pain, nor is any such vocalisation described by Jordanus even when describing pain so great that a horse will fling itself onto the ground until it dies. To identify a horse's pain Jordanus had to be sensitive to the non-verbal signs of suffering.[738]

A sensitivity to the physical signs of pain and suffering is demonstrated by one of the illuminations of a horse-medicine text found in Modena Bibl. Estense MS Ital. 464, attributed to Maestro Boniface and supposedly compiled from the books of 'Ypocrate' and 'Damasceno'. This text is most famously witnessed in two beautifully illuminated manuscripts held by the British Library and the Morgan.[739] MS Ital. 464 is a lower quality manuscript with monochrome sketches likely drawn from one of the original texts. These sketches appear to be in at least three different hands and many of them are of an unfinished quality. The second half is either entirely missing or extremely basic. They are materially very similar to those found in the more elaborate three manuscripts, suggesting that both the text and the illuminations of Ital. 464 are connected with one of the original three manuscripts. Each text is illuminated with miniatures that follow the ailments being described; they are representations of the sick horse, some with figures treating the animal. The Morgan manuscript presents many of these figures as birds or hybrid animals, Ital. 464 does not. This, whether intentionally or not, lends the Modena text a more sombre and serious tone. Most of the illuminations show relatively placid horses, acting in a manner which follows the 'patient' paradigm. They are in relatively good physical condition and are either standing firmly, standing with one fore-foot raised, or in relatively measured trotting and galloping motions. Few have any

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[737] Interestingly, these symptoms correlate quite closely with the modern clinical signs for lameness. The only indicator clearly missing from Jordanus' list is increased digital pulse. See C. E. Wylie and others, 'Decision-Tree Analysis of Clinical Data to Aid Diagnostic Reasoning for Equine Laminitis: A Cross-Sectional Study', *The Veterinary Record*, 178.17 (2016), 420.

[738] This can be compared with the typologies of pain created by medieval physicians. which relied on investigating the patient's perception of their own suffering. See Esther Cohen. pp 148-162.

[739] London, British Library, MS Additional 15097 and New York, Morgan Library, MS M735

outward signs of suffering. In this manner they largely follow the example of the British Library, and Morgan examples.

The one exception to this is the Modena illumination accompanying chapter one; 'Quando el cavallo ha la febre', in which the horse's face is drawn into a grimace with lips parted, nostrils drawn back, and eyes barely open. The horse's ears are held flat against its neck, its head is held low, and the muscles of the neck are held taught. Its body is somewhat wasted, its mane is lank and sodden. Finally, it is holding one of its rear hooves up, placing only the tip on the ground, indicating lameness and echoing Jordanus' description of the lame horse walking only on the point of its hoof.[740] It may also be lame in its off fore-foot (the one furthest from the viewer) as the horse is in motion and the off fore-foot would be the last to hit the ground, therefore potentially the one causing it pain. Although the Modena horse is feverish and not explicitly limping, the raised delicate hoof, by referencing lameness, might generally imply pain, weakness, and suffering. Lameness was a common feature of the *hippiatric* treatises, appearing as both a symptom of other ailments and as a condition or pathology in its own right. A horse's industrial usefulness would be reduced (or entirely removed) by lameness, regardless of its status or sector. Limping could also be an indication of other health problems, which might be chronic or incurable.[741] However, it is important to remember that lameness was also an expression of pain, a communication of suffering from the horse to its carer, in what might otherwise be considered a rather unidirectional communicative pathway.

Stavros Lazaris has argued that images in the Byzantine *hippiatric* tradition functioned as mnemonics to aid *hippiatric* disciples.[742] He referred to the images present in two manuscripts of the so-called *Epitome* (compiled around the sixth century), as well as in Hierocles' *De curandis morbis equorum* (4th c.) as 'visual epilogues' intended to seal the information presented in the preceding text.[743] Lazaris argued that these images had 'no

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[740] The three miniatures are reproduced in this thesis as figs. 2-4.

[741] *Jordanus Ruffus*, pp. 114-115.

[742] Stavros Lazaris, 'Learning and Memorising Hippiatric Knowledge in the Late Antiquity and in Byzantium', in *Le Cheval Dans La Culture Médiévale*, ed. by Bernard Andenmatten, Agostino Paravicini Bagliani, and Pibiri (Firenze: Sismel, 2015), pp. 269–94 (p. 284).

[743] The textual history of the *Epitome* of the *Corpus hippiatricorum graecorum*, known by its closest recension through a single witness Paris, BNF, MS Greek 2322, is discussed by McCabe.

illustrative function' for the *hippiatric* texts, but acted only as aides-memoires. The images are representative of an interaction between master and disciple, at the point of the disciple's ignorance of (at least theoretical) horse-care. The images are not intended to communicate anything concrete or useful about the animals. They are not intended to teach a young disciple 'the use of a given instrument' or the method and purpose of draining a horse's blood. The Estense fever image offers something different; it demonstrates tacit knowledge of equine pain language and a sensitivity to a horse's complex non-verbal signals as discussed by Jordanus. The Morgan image shares some of these signifiers but differs in, for instance, the ears, which in the Estense image are held back against the head. This is a commonly understood signal of discomfort, which Theodoric describes as 'ugly', saying elsewhere that you can discern the manner or mood of a horse from their ears.[744]

This analysis raises questions about tacit and embedded knowledge, particularly knowledge based on empathy. In compiling and analysing the list of visual signifiers in the Estense image I have consulted with equestrians with many years of daily, hands-on experience of horses. This type of tacit knowledge is difficult to use historically and there is certainly discussion to be had about whether it can be applied critically. There are problems of language (visual or otherwise), interpretation, and the cultural construction of both animals and suffering. However, this section relies on experienced medieval marshals recognising the non-verbal equine language of pain and hinges on iconographic and literary signifiers that were transmitted through tacit learning. Some of these signifiers, such as the overall fragile appearance of the body, cross species boundaries and can be understood on an intuitive level by a modern observer. Many cannot and rely on a contemporary comparator, such as Jordanus. Where this is not available, modern knowledge grounded in equine observation offers a reasonable alternative. The horse in Estense 464 presents a number of signifiers associated with pain and discomfort, only some of which are readily available in contemporary literature. Using modern embedded knowledge, with caution, to interpret the others does not seem unreasonable.[745]

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[744] *Theodoric of Cervia*, I, pp. 30-32.

[745] For discussions of retrospective diagnosis see Piers D. Mitchell, 'Retrospective Diagnosis and the Use of Historical Texts for Investigating Disease in the Past', *International Journal of Paleopathology*, 1 (2011), 81–88; Monica Green, Kathleen Walker-Meikle, and Wolfgang Müller,

The miracles of Thomas Cantilupe contain the testimony of a clerk of Reginald de Grey, who had been sent by his lord to investigate the veracity of the late Bishop's miracles during the early stages of his developing cult. He was travelling from Worcester to Hereford when his horse, which had previously been healthy, became so lame that it could barely place its foot on the ground.[746] At first glance the narrative is easily read with a focus on the human participants. The clerk, having been tasked by his lord, is halted in his journey because of the horse's illness, which could not be healed 'by any of a marshal's remedies'. After he prays to Cantilupe for assistance he is able to carry on to Hereford, where he presumably will no longer have to investigate Cantilupe's miracles, having witnessed them first-hand. However, this narrative can also be read as one of resistance and negotiation.

The symptom presented for this ailment is not one of vocal pain, as demonstrated earlier this is very uncommon in *hippiatric* texts and horse-health narratives, but nonetheless it is a communication of suffering. Because it is unable to lift its feet the horse is demonstrating that it is in pain, by refusing to go any further it is refusing to labour any further. Other miracle narratives present this, sometimes more viscerally. The twelfth-century miracles of St. Vicinius of Sarsina describe a horse belonging to a noble deacon of Ravenna called Honestus, which became lame whilst conveying the deacon to Rome. The horse was in such pain in one of its feet that even the blows of a whip could not compel it to take a step further. Honestus and his retinue sweated in vain to drag the horse forward with ropes before the deacon requested the assistance of St. Vicinius.[747] One of the miracles of Birgitta of Sweden (canonised 1391) discuss a horse, belonging to Petrus Sessoni of Linköping, which became lame whilst carrying its owner through Norway. It was suffering so much that it was barely able to touch the ground with its fourth foot. This narrative makes it clear that the horse actively resisted being forced to

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'Diagnosis of a "Plague" Image: A Digital Cautionary Tale', *The Medieval Globe*, 1 (2014), 309–26. and for the use of spatially and chronologically embedded (agro)ecological knowledge see Brian C. Campbell, '"A Gentle Work Horse Would Come in Right Handy": Animals in Ozark Agroecology', *Anthrozoös*, 22 (2009), 239–53.)

[746] *Thomas Cantilupe*, p. 694

[747] *Vicinius of Sarsina*, p. 193.

continue; 'because it was unwilling to be dragged, it fell down dying around vespers'.[748] In both narratives the horse actively refuses to continue in the face of further suffering even when compelled with ropes or with a whip. This is what Jason Hribal refers to in the context of the industrialising USA of the nineteenth and early twentieth centuries as the 'conscious ability' of horses and other animals to refuse and resist labour.

These refusals have an immediate industrial impact upon the animals' owners, losing useful working animals, and potentially a significant part of their livelihood. By refusing labour the horses may have been opening themselves up to further suffering, or even abandonment, sale, or slaughter. The horse belonging to Petrus Sessoni was going to be skinned until a local of Vadstena suggested seeking the assistance of St. Birgitta. However, the *hippiatric* texts and narratives of horse pain and lameness suggest that there was also a more delicate interaction between horses and humans who were sensitive to their animals' suffering. Marshals keenly observed their horses, knew the signs of different forms of pain and lameness, and treated them accordingly. They were also sympathetic to the needs of lame and suffering animals. The *hippiatric* writers cautioned their readers not to ride or work a suffering horse, particularly when doing so would do further harm to it. For instance, this was the case in Jordanus' section on *anticuorus* an inflammation of a gland in the chest, usually requiring surgery.[749] Jordanus also demonstrated caution where a treatment might cause significant pain, such as in his discussion of *pulmonus*, which could be treated with caustic chemicals instead of surgical incision, to minimise the pain to the horse.[750] Marshals and other horse-carers were sensitive to and aware of the suffering of their animals. Horses were able, through the expression of pain and resistance to labour, to act out limited but significant agency.

Conclusion

The scholarly discussion of medieval horse-medicine has so far been entirely *iatrocentric*, in line with its current position mirroring the initial phase of the history of medicine in the first half of the twentieth century. Analyses have centred on the most famous

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[748] *Birgitta of Sweden*, p. 835.

[749] *Jordanus Ruffus*, p. 30.

[750] *Jordanus Ruffus* p. 60

veterinary writers and the purest iterations of their texts. Vegetius handed the torch to Jordanus and the *hippiatrics* gave way to the *Écoles vétérinaires*, with barely an equine body in sight. This methodology has precluded any serious discussion of the horse as *patiens*, as sufferer, or as a non-human patient.[751] In this chapter I have suggested one method for applying ideas of patient theory to a pre-modern non-human sufferer. I have shown that the limiting effect of notions of the patient predicated on agency, literacy and articulacy can be circumvented or mitigated by modulating expectations through less human-focused ontologies, which – unlike the 'patient's view' – were developed with historical groups in mind who are marginalised by traditional social history. I have demonstrated that ideas around agency and resistance drawn from the study of modern animals can be fruitfully applied to the Middle Ages, with its multi-species labour force.

In this chapter I have shown that the *hippiatric* texts should be read alongside healing narratives and images, using disability theory, patient theory, and an occupational health model to move beyond a portrait of the horse-doctor and his text, to access the representations and lived experiences of medieval horses. By looking at treatises, remedies, and health-narratives through an animal studies lens, this chapter has shown that medieval horses were understood and described as independent agents, capable of articulating their suffering, objecting to harsh treatment, and resisting labour. This put them at odds with their carers, whose role was often to restrict the horse's autonomy rather than to alleviate illness or suffering. This chapter has demonstrated that care of horses was not simply a matter of applying allopathic or sympathetic treatments when necessary to return a sick body to a state of wellness. Intervention often meant that care had failed, that the horse's industrial capacity was diminished, and that the rider's dominion was faltering. This meant that the animal was not only less useful but dangerous and the potential cause of public ignominy. The noble horse was maintained according to expectations of utility, beauty and *bonitas*; when its behaviour or appearance deviated from the acceptable norm it suffered treatment in the form of charms, chemical preparations, and physical corrections. These reflected the social construction of the noble horse as an amalgam of biology, technology, and discourse; the product of training

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[751] *Patiens* is the word most commonly used by Jordanus to denote a sick horse. It is a participle, having the sense of one who is suffering but also one who is forbearing.

and domestication that separated it from the *equiferus*. If any of these should fail it provided the carer with a powerful motivator, as the *equus generosus* could easily become a wild and untamed thing.

Conclusion

In his 2011 critique of the development of the 'patient's view', Fernando Salmón argued that if we render sufferers into 'subjects whose *existence* was dependant on the dominant medical discourse' we will 'make invisible what had been previously ignored'. He, like many other social historians of medieval and early modern medicine, wished with good intention to return agency to those who are rendered historically inert by the dominant discourse, through a rigorous and targetted analysis of the patient's voice. In 2013, Olivia Weisser argued that we should examine 'sufferers' words rather than learned medical literature' to reveal the patient's understanding of their illness, their bodies, and their emotions. Scholars seeking the patient's view often try to break down the sympathetic (and professional) connection between the modern historian and the premodern physician as shapers of discourse. They seek the contributions of the sick to medical discourse, often through some iteration of Porter's call to study literate, articulate, and independant patients. By nature, these methodologies exclude animals, who were neither articulate nor independent in the sense that Porter intended. More than that, Porter's evident discomfort with the 'medical gaze' and the social construction of patients or other disempowered individuals and groups also obstructs animals and renders them inert. Studying the cultures of medieval horse-medicine requires us to consider horses as the product of an 'anthropic gaze'.

In this thesis I have demonstrated the value of studying the *hippiatric* tradition in a contextualised fashion, applying theoretical models drawn principally from the history of medicine and animal studies. In order to answer my initial research question: 'Did the context of *De medicina equorum* influence its development?', I have built on the philological study and textual criticism that has characterised medieval veterinary studies in recent years but argued that without connection to the history of medieval medicine, the interpretation of these texts will always be flawed. I have demonstrated that an understanding of the post-history of Jordanus Ruffus' *De medicina equorum* is vital to charting the development of horse-medicine, both in theory and practice. In order to address the question 'who provided care for horses?', I have used medieval and early-modern debates on medics, guilds, and professionalisation to show that late-medieval marshals were a diverse and often influential group, who fought to control their market and to forge a professional identity. I have connected a broad corpus of horse-medicine

treatises and healing narratives to recent analyses of medieval miraculous and magical care, to demonstrate that equine medicine was not insulated from these practices and nor were they deemed broadly illicit or irrational. In answer to my final question on the relationship between developmental care and interventionary medicine, I have argued strongly throughout this thesis that *De medicina equorum* should not be viewed as primarily a remedy collection or even a scientific discourse on pathology. Instead, I have shown that Jordanus created the archetype for an integrated schema of breeding, maintenance, and interventionary care intended to create and preserve an elite horse. I have presented an occupational health model of *hippiatric* care, that connects to medieval notions of geography, development, and the interaction between the body and its environment that were broadly humoural in nature, as well as connecting my arguments to historical and theoretical studies of animal welfare and modern industrialisation. Finally, I have shown that the medieval horse can and should be analysed as a non-human patient, and I have provided one methodology for doing so: by analysing therapies and healing narratives according to the expectations of elite horse-owners, using the flat ontology of Actor-Network Theory and models of 'violent care', agency, and resistance drawn from studies of modern animals.

One of the principal outcomes of this thesis is to demonstrate that medieval animal-care and its practitioners should be incorporated into the history of veterinary medicine, that the *terminus post quem* was not Bourgelat or the *haute école*, and that the narrative of veterinary history should be reframed to recognise that the ideas, structures, and tensions that characterised modern animal-care were often in place in the later Middle Ages.[752] This raises the question of why then and not before? Although it was beyond the scope of this project to answer this query in full, the relationships between the intellectual cultures, institutions, and contexts of horse-medicine in this period point to a confluence of developments. As I have argued throughout this thesis, the forms, ideas, and structures of horse-medicine reflected contemporary human medicine. The *hippiatric* tradition relied on the transmission of Roman, Greek, and Arabic works – notably

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[752] For the connection between eighteenth-century veterinary care and *haute école* equestrianism, see Tatsuya Mitsuda, 'The Horse in European History, 1550-1900' (unpublished Doctoral Thesis, University of Cambridge, 2007), pp. 63–108.

Aristotle's *De animalibus*, the Byzantine *Epitome*, Vegetius' *Mulomedicina*, and the *Liber Ipocratis*. Some of these treatises, such as the *Mulomedicina*, had a direct textual impact on *hippiatric* treatises. However, even those that did not still encouraged the development of the field by adding competing texts and theories and contributing to the growth of a culture of translation and dissemination. By the end of the thirteenth century, if not earlier, delicately-arranged and richly-illustrated *hippiatric* texts were being produced for elite stable-masters or indeed for their lords and other laypersons. This reflected similar developments in the institutions and defining pedagogies of medicine. The translation movements of the long-twelfth and thirteenth centuries produced what would become the principal authoritative texts of human physic and surgery. Medical books were produced not only for the practitioner but also for the elite layperson.[753] Many of the same patrons, translators, and centres of book production that encouraged the dissemination of medical knowledge also fuelled the development of the *hippiatric* tradition. These were found particularly in the Kingdom of Sicily, which became a precocious site for the production of horse-medicine texts.[754]

The intellectual culture of horse-medicine advanced hand-in-hand with its practitioners. Marshals developed both structures of occupational security – such as the guilds – and a unique (if occasionally contested) professional identity. The word 'marshal' and its Romance-language cognates are derived from Frankish and attested in the Lex Alemanni, the corollary term meaning a royal or aristocratic leader of men was used in England and France from the eleventh century.[755] However, as this thesis has demonstrated, marshals went through a persistent and fairly rapid period of professionalisation in the late Middle Ages, which seems to have followed the development and widescale dissemination of the *hippiatric* treatises. It seems likely that these texts provided both a deontological expectation and a cultural appetite for marshals

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[753] Monica Green, pp. 287–90.

[754] See the introduction to Chapter 1, above.

[755] '"Marescalcus" (Par C. Du Cange, 1678), Dans Du Cange, et Al., Glossarium Mediae et Infimae Latinitatis, Éd. Augm., Niort : L. Favre, 1883-1887, t. 5, Col. 274c.', *Du Cange* <http://ducange.enc.sorbonne.fr/MARESCALCUS> [accessed 9 January 2018].

as part of a seigneurial household.[756] The later Middle Ages also witnessed the broader use of horses and donkeys across social strata. Climate change and the exploitation of more marginal land encouraged a shift from oxen to horses as draft animals, and greater urbanisation saw more people from artisanal and lower classes using horses.[757] These animals also required persistent and interventionary care, which is reflected in the therapies, charms and healing narratives discussed in Chapter 4.

Throughout this project I have demonstrated the value of incorporating the study of animal-care and the maintenance of the animal body into the discourses and debates of the history of medieval health and medicine. Medieval societies were fundamentally multi-species in nature and the interwoven connections between human and non-human animals were vital to discourses on medicine and the body, as well as the preservation of public and environmental health. The close relationships between human and animal medicine were understood from both sides and at every level. I have consistently argued for treating animal-care practitioners (principally marshals in this study) as medics, recognising that their knowledge, expertise, and hard-fought status reflected the importance of their role and the trust granted to them by their customers. For the study of medieval medicine and healthcare to be complete it must not exclude non-human animals. This thesis has also demonstrated the potential for using medicine and care to discuss the affective relationships between humans and animals. In this study they are often represented along lines of gender, status, and species but further analysis will almost certainly dilute these categories, to demonstrate more of the broad and intimate spread of relationships between species. This thesis has also demonstrated the possibility of discussing the lived experiences of non-elite horses as individuals, through analysing veterinary therapies and healing narratives. Work- and farm horses are otherwise doubly excluded from historical discourse, as inarticulate non-human animals of low status. I

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[756] For instance, the liveried marshals in Figure 5. BAV, Vat. Lat. MS 7228

[757] Langdon; Claridge and Langdon; John Aberth, *An Environmental History of the Middle Ages: The Crucible of Nature* (Routledge, 2012); Briony Aitchison, '"Drunkenness Is the Mother of Forgetfulness, Anger Causes Injuries": Animal Welfare in Late-Medieval English Urban Society', in *Animaltown: Beasts in Medieval Urban Space*, ed. by Alice M. Choyke and Gerhard Jaritz (Oxford: BAR, 2017), pp. 85–93.

have also demonstrated the necessity of a rigorously interdisciplinary approach to the horse-medicine, which cannot be understood using only the perspectives of didactic treatises and requires contextualisation through a broad array of complementary genres across many languages.

This project has achieved much but it is far from being the final word on animal health and medicine. This thesis deals with a larger group of horse-medicine texts than any previous study, but there is still a very large and as yet unsurveyed corpus of treatises and remedy collections that should be incorporated into the history of medieval veterinary medicine. Many of these have been overlooked because of their anonymity or perceived marginality, but a more comprehensive analysis of horse-medicine theory and remedies, looking in particular at the spread and diversification of technical language would be invaluable. Although this project was by nature international, there are still significant studies to be drawn from much of Europe, North Africa, and the Middle East. A comparative analysis incorporating Byzantine and Islamicate horse-medicine texts that did not centre any one tradition would certainly offer fascinating insights into the interaction and connection of veterinary ideas around the Mediterranean basin.[758] It would be highly illuminating to consider local traditions of horse-medicine in northern and eastern Europe, which have so far been entirely absent from scholarship. There is a great deal more that can be done to expand our knowledge of marshals, particularly through localised analysis of specific urban guilds through civic and judicial records and other documentary sources. Although hunting manuals have been discussed for some time as examples of chivalric literature and compared with the motifs of noble animals and huntsmen in medieval romances, neither the texts nor the rich iconographies of these manuals have been analysed in terms of animal care or medicine. As royal and seigneurial practitioners, huntsmen were perhaps the closest corollaries to high-status medieval marshals and a comparative analysis with the positions and practices of noble falconers

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[758] Though it would require a spread of linguistic and disciplinary skills that would likely involve more than one researcher.

and dog-masters would be fruitful. This thesis would encourage studies of the care provided to non-elite animals, including birds, dogs, and farm-animals.

From the blind nag to the bay charger, late medieval society would not have functioned without its horses. They reflected its industry, its bellicosity, its hierarchy, and its theology. The promise of God to Adam, that he would have dominion over nature, was both a pledge and a responsibility.[759] Dominion implied rational governance; supremacy but also care. This reflected the relationships between man and God, between a knight and his lord, between a horse and its rider. Horse-care also reflected this dominion in its didactic expectations, its practices, and therapies. Charms and miracles spoke to a loving God and the promise of resurrection; draughts and poultices to a well-ordered universe. The noble horse was created and maintained through an expensive and time-consuming process of training and bodily modification to reflect its status and its rider. Even violent correction was founded in care and dominion. Horses of all stations had complex essential and attributive value in the Middle Ages, when they were injured or fell ill they were not left by the side of the road by indifferent owners, they were cared for.

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[759] The vulgate Bible uses the verb 'praeesse' a compound of prae+esse: to be in front of, to lead. Genesis 1:26

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<u>Illustrations</u>

Figure 1: London, British Library, MS. Additional 15097, f. 59 (The Zodiac Horse)

Figure 2: Modena, Biblioteca Estense, MS. Ital 464, f. 1

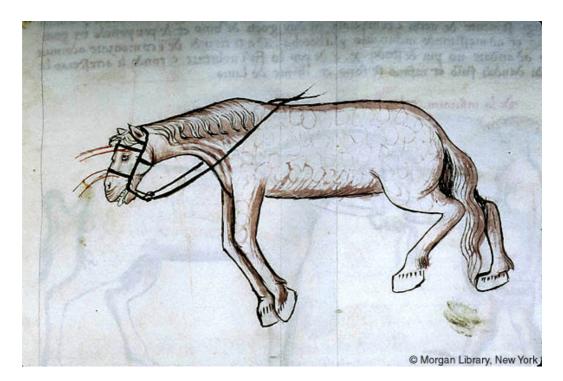Figure 3: London, British Library, MS. Additional 15097 f.60

Figure 4: New York, Morgan Library, MS. M735, f. 64

Figure 5: Vatican City, Biblioteca Apostolica Vaticana, MS. 7228 f. 19

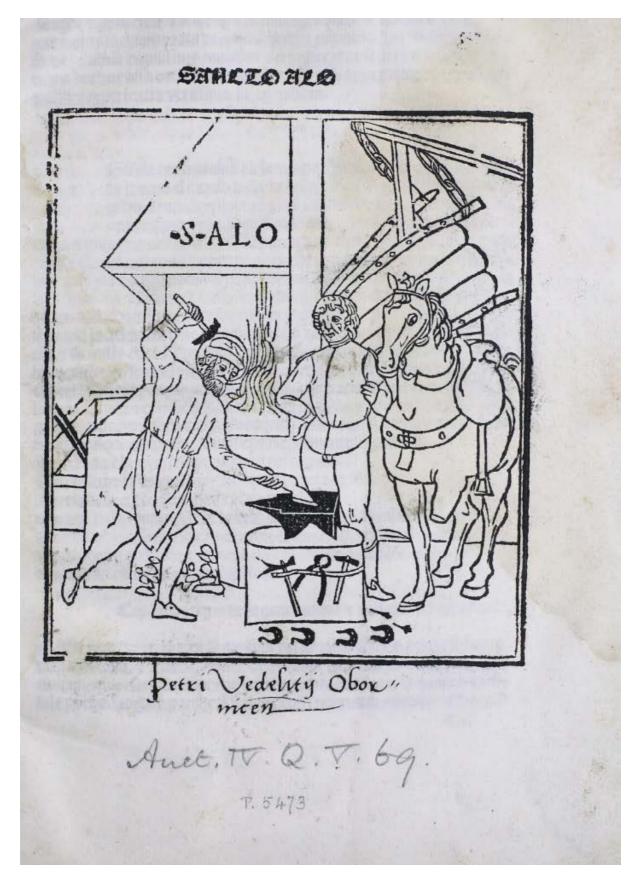Figure 6: Vatican City, Biblioteca Apostolica Vaticana, MS. 7228 f. 19ᵛ

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Figure 7: Oxford, Bodleian Library, Auct. 4Q 5.69, f. 1

Figure 8: Giovanni Antonio di Banco, *Tabernacolo dell'Arte dei Maniscalchi*, 1417-1421, Orsanmichele, Florence

Figure 9: Hans Leu the Elder, *Miracle of St. Eligius,* 1495, Oil and Tempera on Panel, Augustinerkirche, Schweizerisches Nationalmuseum, Zürich

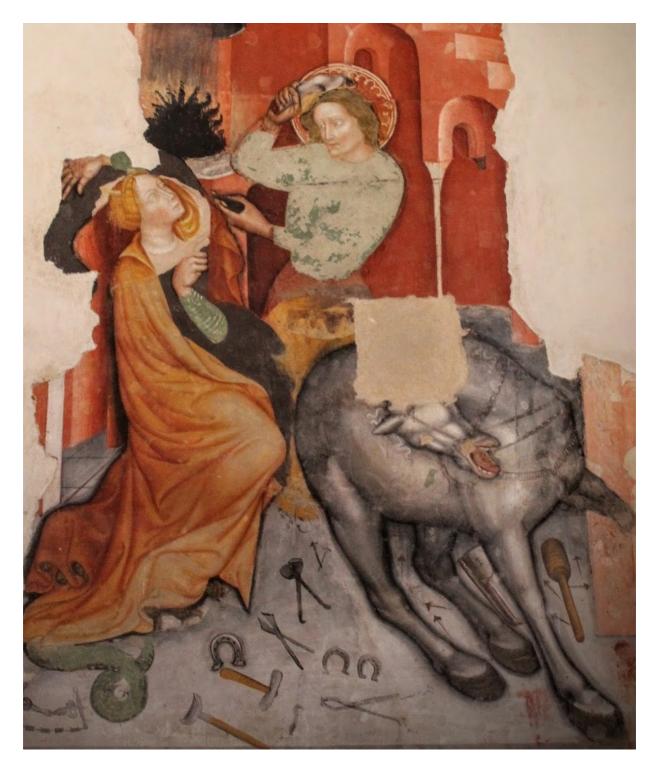Figure 10: Cesena, Biblioteca Malatestiana, MS. S. XXVI. 2, f. 3

Figure 11: Pisanello (attr.), *San Eligio*, 15th century, wallpainting, Chiesa di Santa Caterina, Treviso

Figure 12: Niccolò di Pietro Gerini, *The Devil Tempts Saint Eligius at Work*, c. 1390, panel, Avignon,

Musée du Petit Palais

Figure 13: Sandro Botticelli, *Miracle of St. Eligius*, 1490-92, Tempera on Panel, Galleria degli Uffizi, Florence

Figure 14: London, British Library, MS. Additional 15097, f. 14

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