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A Byzantine Encyclopaedia of Horse Medicine

*The Sources, Compilation, and
Transmission of the Hippiatrica*

ANNE McCABE



Ἀλλ' ἀλγήσει τὴν σωμίαν· αἰσπὸ δρόμου αἰμέτρον

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OXFORD STUDIES IN BYZANTIUM

Oxford Studies in Byzantium consists of scholarly monographs and editions on the history, literature, thought, and material culture of the Byzantine world.

A Byzantine
Encyclopaedia of Horse
Medicine

*The Sources, Compilation, and Transmission
of the Hippitrica*

ANNE McCABE

OXFORD
UNIVERSITY PRESS

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Great Clarendon Street, Oxford ox2 6DP

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It furthers the University's objective of excellence in research, scholarship,
and education by publishing worldwide in

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New Delhi Shanghai Taipei Toronto

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Published in the United States
by Oxford University Press Inc., New York

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First published 2007

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British Library Cataloguing in Publication Data
Data available

Library of Congress Cataloging-in-Publication Data
Data available

Typeset by SPI Publisher Services, Pondicherry, India
Printed in Great Britain
on acid-free paper by
Biddles Ltd., King's Lynn, Norfolk

ISBN 978-0-19-927755-1

1 3 5 7 9 10 8 6 4 2

Preface

THIS book is based on a thesis entitled 'The Transmission of the Greek *Hippiatrica*', submitted to the Faculty of Literae Humaniores, University of Oxford, in 2002. The original text has been revised and to some degree expanded; at the suggestion of the Press I have also given English translations of quotations from Latin and Greek texts. These are intended simply as an aid to the reader; I have no doubt that there are many points on which they could be improved. Translations of Columella's *De re rustica* are, in general, adapted from that of H. B. Ash, E. S. Forster, and E. Heffner in the Loeb Classical Library, and translations of Varro's *Res rusticae* from that of W. D. Hooper and H. B. Ash in the same series.

I should like to express my warmest thanks to the editorial board of Oxford Studies in Byzantium for including my work in the new series, and especially to my supervisor, Prof. Cyril Mango, for his kind advice and his patience. The text has benefited greatly from suggestions by my other teacher, Prof. Ihor Ševčenko, for improving its 'user-friendliness', and from Mr Nigel Wilson's comments on earlier versions and on matters of palaeography. Very many thanks also to Dr Sebastian Brock for his help with the Syriac translation of Anatolius, and to Dr Robert Hoyland for his collaboration on the Arabic tradition of Theonnestus; Dr Fritz Zimmerman also examined the Arabic translation. Dr Anne-Marie Doyen-Higuet and Prof. Klaus-Dietrich Fischer generously provided much useful material. Mrs Hülya Baraz, Mr Michael Carey, Dr Krijnie Ciggaar, Dr Vera von Falkenhausen, Dr Jeffrey-Michael Featherstone, Prof. George Huxley, Dr Elaine Matthews, Dr Emilie Savage-Smith, Dr Nancy Ševčenko, Dr Natalie Tchernetska, and Prof. Agamemnon Tselikas kindly offered help and all sorts of items of hippiatric interest. I am grateful to the manuscript departments of the Biblioteca Apostolica Vaticana, the Biblioteca dell' Accademia Nazionale dei Lincei e Corsiniana in Rome, the Biblioteca Mediceo-Laurenziana in Florence, the Biblioteca Nazionale of Naples, the Bibliothèque nationale de France, the British Library, the Köprülü Kütüphanesi in Istanbul, and the Universiteitsbibliotheek in Leiden, for permitting me to see their copies of the *Hippiatrica*; and in particular to Dr Renate Schipke of the Staatsbibliothek zu Berlin for allowing me to examine the beautiful imperial manuscript Phillipps 1538; Dr Helen Carron and the late Prof. Frank Stubbings of the Library of Emmanuel College, Cambridge; Bay Muammer Ülker of the Süleymaniye Kütüphanesi in Istanbul, Dr Clare Breay and Dr Scot McKendrick of the British Library, M. Christian Förstel of the Bibliothèque nationale and Dr Bruce Barker-Benfield of the Bodleian

Library for their answers to questions about manuscripts. Finally, I should like to thank my copy-editor, Heather Watson, for her very helpful observations. I ought in fairness to dedicate this book to my horse Calypso, who is in Patmos, with apologies for spending more time with the *Hippiatrica* than with her in the last few years. But since she (very sensibly) has more interest in juicy figs than in dry tomes, I dedicate it instead, with love, to my parents.

A.E.M.

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Abbreviations

1. THE HIPPIATRICA

CHG I–II *Corpus hippiatricorum Graecorum*, ed. E. Oder and C. Hoppe vol. I: (Leipzig, 1924), *Hippiatrica Berolinensia*; and vol. II: (1927), *Hippiatrica Parisina*, *Hippiatrica Cantabrigiensia*, *Additamenta Londinensia*, *Excerpta Lugdunensia* (repr. Stuttgart, 1971). The text is referred to by the capital letter denoting the recension in question, e.g. M, B, C; and by the number assigned to the passage in the Teubner edition. Since the readings of M are for the most part printed as additions to the text of B, or in the apparatus criticus in vol. I, it is usually necessary to indicate for M the equivalent text in B. I have tried, as far as possible, to give the text of M.

2. PERIODICALS, SERIES, AND WORKS OF REFERENCE

AB	<i>Analecta Bollandiana</i>	GAS	F. Sezgin, <i>Geschichte des arabischen Schrifttums</i> (Leiden, 1967–)
AM	<i>Athenische Mitteilungen</i>	GRBS	<i>Greek, Roman, and Byzantine Studies</i>
ANRW	<i>Aufstieg und Niedergang der Römischen Welt</i>	IG	<i>Inscriptiones graecae</i>
BCH	<i>Bulletin de correspondance hellénique</i>	IK	<i>Inschriften griechischer Städte aus Kleinasien</i> (Bonn, 1972–)
BZ	<i>Byzantinische Zeitschrift</i>	JHS	<i>Journal of Hellenic Studies</i>
CCAG	<i>Catalogus codicum astrologorum graecorum</i> (Brussels, 1898–1953)	JÖB	<i>Jahrbuch der Österreichischen Byzantinistik</i>
CIG	<i>Corpus inscriptionum graecarum</i> (Berlin, 1828–77)	JRS	<i>Journal of Roman Studies</i>
CIL	<i>Corpus inscriptionum latinarum</i> (Berlin, 1862–1989)	LBG	E. Trapp <i>et al.</i> (eds.), <i>Lexikon zur byzantinischen Gräzität besonders des 9.–12. Jahrhunderts</i> (Vienna, 1994–)
CMG	<i>Corpus medicorum graecorum</i>	LGPN	P. M. Fraser, E. Matthews, <i>et al.</i> (eds.), <i>A Lexicon of Greek Personal Names</i> (Oxford, 1997–)
CQ	<i>The Classical Quarterly</i>	LSJ	H. J. Liddell and R. Scott (eds.), <i>A Greek–English Lexicon</i> , rev.
CRAI	<i>Comptes-rendus des séances de l'Académie des inscriptions et belles-lettres</i>		
DOP	<i>Dumbarton Oaks Papers</i>		

	H. Stuart Jones and R. McKenzie (Oxford, 1968)		<i>Prosopography of the Later Roman Empire</i> (Cambridge, 1971–80)
Mansi	G. D. Mansi (ed.), <i>Sacrorum conciliorum nova et amplis- sima collectio</i> (Paris and Leip- zig, 1901–27)	<i>P. Oxy.</i>	<i>The Oxyrhynchus Papyri</i>
		RE	<i>Paulys Real-Encyclopädie der classischen Altertumswis- senschaft</i>
Notices et extraits	<i>Notices et extraits des manu- scrits de la Bibliothèque impé- riale et autres bibliothèques</i>	REB	<i>Revue des études byzan- tines</i>
		REG	<i>Revue des études grecques</i>
PG	J.-P. Migne, <i>Patrologiae cursus completus, Series graeca</i> (Paris, 1857–66)	<i>Rh. Mus.</i>	<i>Rheinisches Museum für Philologie</i>
PGM	<i>Papyri Graecae Magicae. Die griechischen Zauberpapyri</i> ² , ed. K. Preisendanz, rev. A. Henrichs (Stuttgart, 1974)	Sophocles	E. A. Sophocles, <i>Greek Lexi- con of the Roman and Byzan- tine Periods</i> (Cambridge, Mass., 1914)
PL	J.-P. Migne, <i>Patrologiae cursus completus, Series latina</i> (Paris, 1844–64)	ZPE	<i>Zeitschrift für Papyrologie und Epigraphik</i>
		ZSS	<i>Zeitschrift der Savigny- Stiftung</i>
PLRE	A. H. M. Jones, J. R. Martindale, J. Morris, <i>The</i>		

Introduction

Horses for ye, and brown Greek manuscripts...

Robert Browning, 'The Bishop Orders
His Tomb at Saint Praxed's Church'

THE text known as the *Hippiatrica*¹ is the principal monument which remains of technical literature in Greek devoted to the care and healing of the horse. Compiled probably in the fifth or sixth century AD by an unknown editor out of excerpts from seven Late Antique veterinary manuals, the *Hippiatrica* is a vast work of reference organized ailment-by-ailment and author-by-author, ending with lists of recipes for drugs. The text is preserved in five recensions, in twenty-two manuscripts (containing twenty-five copies) which range in date from the tenth century to the sixteenth. Although the origins of the *Hippiatrica* may be traced back to an earlier age, and its influence detected later, in other languages and literatures, this study will focus on the sources and structure of the compilation, and on its evolution in the Byzantine period, in Greek.

The *Hippiatrica* is a precious source of information about the language, methods, and practitioners of a specialized branch of the veterinary art, a discipline whose flowering (if one may call it that) in Late Antiquity corresponded to the value attached to its patients, and to the importance of their roles in Roman life. Symptoms and maladies described in the text are, for the most part, those that continue to plague horses and their owners today: lameness, cough, colic, laminitis, glanders, parasites—but there are also some, such as affliction by the evil eye, which no longer figure in manuals of horse care (though they may still be cause for concern). The text also sheds light on other aspects of horse care such as breeding, breaking, feeding, grooming, and stable management. No other source offers such vivid glimpses into the daily life of the stables: we learn that horses were massaged

¹ The title *Hippiatrica* assigned to the compilation by its modern editors and translators has medieval precedents: the description *ἵππιατρικὸν βιβλίον* appears in the *Souda*, s.v. *Ἄψυρτος*, *τρίλλη*, and *Χείρων*, as well as in a 12th-c. manuscript of the compilation, Cambridge, Emmanuel College 251. *Corpus hippiatricorum Graecorum*, the title of the Teubner edition by Eugen Oder and Karl Hoppe (Leipzig, 1924–7), refers not to the Greek compilation itself, but to the 'corpus' of different *Hippiatrica*, i.e. recensions of the compilation, presented in that edition.

with wine and oil; that their stalls were strewn with bay and myrtle leaves or fumigated with myrrh; that they were brought down to the sea to swim. Prescriptions for medicines composed of exotic and expensive spices, sauna sessions in Roman baths, magical amulets, and chicken soup attest to the care lavished on valuable animals. Although the texts are, for the most part, written in the detached tone befitting medical manuals, there are also, in the *Hippiatrica*, expressions of affection for horses, and of distress at their suffering.

The history of this rich and complex text has been neglected in the last sixty years, whether because of a distaste, on the part of scholars, for the subject-matter, or as a consequence of the confusing state in which the text appears in its printed editions. Yet a number of paradoxes inherent in the *Hippiatrica* invite investigation: it is a technical reference-book which nevertheless contains elements of belletristic style, a secular text which provides evidence of popular beliefs, a text viewed in the Middle Ages and the Renaissance both as an object of antiquarian interest and as a source of practical advice. The diversity of material forms in which the text is presented reflects this varied character: a text devoted to ‘complexities of mire and blood’ is copied in manuscripts of extraordinary beauty, as well as plain copies destined for handy reference in the stables. Early translations of the sources of the *Hippiatrica* between Latin and Greek and from Greek into Syriac indicate that there was demand for the texts in different areas of the Roman empire. Medieval versions of two of the source-texts into Arabic and Latin, minor products of two movements of translation that constitute milestones in the history of science, show that the influence of Greek veterinary medicine extended past the borders of Byzantium, from Palermo to Baghdad. An Italian translation provides further evidence of the reception of Greek veterinary texts in the West. These translations, which we shall touch upon only briefly, are interesting in their own right, but are additionally useful for the light that they may shed on the history of the Greek texts.

The *Hippiatrica* is a compilation, and the information it contains represents different periods, different places, and different points of view. In order to evaluate this information, it is necessary to have a clear understanding of the medium in which it is conveyed. At the most superficial level, the medium is that of manuscripts, and the recensions of the text that they contain; at the second, it is the compilation; and at a deeper level, it is the source-treatises that make up the compilation, and their own sources in turn. The history of these various strata of the text follows a well-known pattern of composition, codification, revision, and translation, so that the hippiatric corpus is also a good case-study for the transmission of technical material in the Byzantine period.

The history of the text may be divided into three chronological phases: (1) the period during which the seven source-treatises were composed; (2) the moment when these treatises were excerpted and the excerpts assembled to form the first compilation; and (3) the subsequent period during which the hippiatric encyclopaedia was used, copied, and repeatedly reworked. These divisions are not equal in duration: while the first comprises several centuries of Late Antiquity, the second, its terminus, is probably to be imagined as no more than perhaps a few weeks or months; and the third spans the remainder of the medieval period. Once assembled, the *Hippiatrica* seems to have become a standard reference-book that eclipsed other literature in the field. Little new veterinary material appears to have been added to the encyclopaedia after it was compiled: the same Late Antique treatises remained in use, being adapted without being superseded. Changes to the content and organization of successive recensions of the compilation reflect the evolving tastes of medieval editors; and it is worthy of note that the literary style and character of the source-treatises, as much as the information which they convey, influenced their fate in transmission. For this reason, rather than proceeding 'stratigraphically' from the manuscripts to the compilation to its sources, we shall attempt to trace the history of the text chronologically, from Late Antiquity to the end of the Byzantine period.

HORSES, HORSE-DOCTORS, AND HORSE-MEDICINE

Before we turn to the text itself, a few words about horses, horse-doctors, and veterinary literature in antiquity may help to introduce the subject.² The specialized genre of hippiatric literature, which makes its first appearance in cuneiform tablets of the fourteenth century BC found at Ras Shamra-Ugarit in Syria,³ does not appear to have been much cultivated in Greek before the Roman period. Simon of Athens, the first known Greek writer on horses (fifth century BC), is said by Xenophon to have written on horsemanship

² See K.-D. Fischer, 'Ancient Veterinary Medicine: A Survey of Greek and Latin Sources and Some Recent Scholarship', *Medizinhistorisches Journal*, 23 (1988), 191–209; J. N. Adams, *Pelagonius and Latin Veterinary Terminology in the Roman Empire* (Leiden, 1995), 66–148.

³ See D. Pardee, *Ras-Shamra Ougarit, II: Les textes hippiatricques* (Paris, 1985); C. Cohen and D. Sivan, *The Ugaritic Hippiatric Texts: A Critical Edition* (New Haven, 1983). Cures for horses are also included in Akkadian medical texts (ibid. appendix III). The well-known Hittite text from Boğazköy by Kikkuli of Mitanni (c. 1350 BC) is on the care and training of horses rather than on their medical treatment: see A. Kammenhuber, *Hippologia Hethitica* (Wiesbaden, 1961).

(περὶ ἱππικῆς);⁴ the *Souda*'s attribution of a medical manual to him is probably an error.⁵ A fragment attributed to Simon, describing the characteristics desirable in a horse, is preserved in the *Hippiatrica*.⁶ Xenophon's own treatise *On the Art of Horsemanship* (Περὶ ἱππικῆς) is not concerned with diseases or their treatment, though he refers in passing to three conditions: surfeit of blood, exhaustion, and laminitis.⁷ Aristotle gives a detailed account of the breeding and lifespan of horses, donkeys, and mules, and names several diseases with their symptoms, but describes only one treatment, namely bloodletting. Aristotle's allusion to the opinion of 'the experienced' (ἐμπειροὶ) that horses suffer from the same diseases as humans suggests that there were people specialized in horse care, but does not make it clear that they were professional horse-doctors.⁸ The *Souda* ascribes a 'medical book on the treatment of donkeys' (βιβλίον ἱατρικὸν εἰς ὄνων θεραπείαν) to

⁴ Xen. *De re equestri* I.1, where it is also said that Simon set up a bronze horse, with his deeds worked in relief on its base, near the City Eleusinion in the Athenian Agora (high on the north slope of the Acropolis, where horsemen would pass by on the Panathenaic way). Xenophon also quotes Simon on a horse's performance under compulsion, *De re equi*. XI.6. According to Pliny, *NH* XXXIV. 76, Simon 'primus de equitatu scripsit'. Simon is mentioned three times in the *Hippiatrica*, twice simply name-dropped, along with Xenophon, as an authority (by Hierocles, B1.11, *CHG* I p. 4; by Apsyrus B115.1, *CHG* I p. 372); and once in a retelling of the story that he criticized a painting by Micon (Hierocles B59.6, *CHG* I p. 249); Aelian, *NA* IV.50 says that the story was told both of Micon and of Apelles. The tale also appears in Pollux II. 69. See the two entries in *RE* II.5: Simon (7), 173–5, and Simon (16), 180.

⁵ The *Souda* has (Adler, T 987) *Τρίλλη τί σημαίνει; γέγραπται γὰρ ἐν τῷ τοῦ Ἀθηναίου Σίμωνος Ἱπποιατρικῷ περὶ γνωρισμάτων φλεβῶν, ὅτι καὶ ἀπο τῆς τριλλῆς εἰσὶ φλέβες δύο.* 'Trille: what does it mean? For it is written in the work on horse-medicine by Simon the Athenian, on the subject of recognizing veins, that there are two veins leading from the trille.' The passage on veins is from Vegetius, no doubt mistakenly attributed to Simon because of its placement in the *Hippiatrica* after a lemma mentioning Simon, cf. C93, *CHG* II p. 228. This is one of several *Souda* entries that seem to be drawn from the 10th-c. C recension of the *Hippiatrica*, as we shall see below. The 10th-c. bibliographer al-Nadīm attributes a book on veterinary surgery to a certain Simos; *The Fihrist of Al-Nadīm*, tr. B. Dodge, vol. II (New York, 1970), 738. Nadīm, too, may have known Simon's text from the *Hippiatrica*. Simon's work is also called an ἵπποσκοπικὸν βιβλίον θαυμάσιον in the *Souda* s.v. Ἄψυρτος (Adler, A 4739) and Κίμων (Adler, K 1621) (*sic*—confused with the statesman who had his horses buried near his own grave, cf. Herodotus 6.103).

⁶ C93, *CHG* II pp. 228–31; repr. K. Widdra, *Xenophontis De re equestri*, pp. 41–4. The only other fragments of the treatise are in the *Onomasticon* of Pollux, I.188 ff. The fragment in the *Hippiatrica* is entitled *περὶ ἰδέας ἱππικῆς*, 'On the ideal equine form'. All the fragments are collected in F. Ruehl (ed.), *Xenophontis Scripta minora*, I (Leipzig, 1912), 193–7.

⁷ The owner should keep an eye on the horse so that *ὅταν μὴ ἐκκομίζῃ τὸν σίτον ὁ ἵππος, φανερόν γίγνεται. τούτου δ' ἂν τις αἰσθανόμενος γιγνώσκῃ, ὅτι ἢ τὸ σῶμα ὑπεραιμοῦν δέεται θεραπείας, ἢ κόπου ἐνότος δέεται ἀναπαύσεως, ἢ κριθίαισις ἢ ἄλλη τις ἀρρώστια ὑποδύεται. ἔστι δὲ ὡσπερ ἀνθρώπῳ οὕτω καὶ ἵππῳ ἀρχόμενα πάντα εὐιατότερα ἢ ἐπειδὴν ἐνσκιρωθῆ τε καὶ ἐξαμαρτηθῆ τὰ νοσήματα.* *De re equi*. IV.2, whence Pollux I.209.

⁸ *HA* VI 575b–577b; VII (VIII) 604b.

the legendary Persian magus Astrampsychus.⁹ Many texts of an occult nature and of diverse date, including spells and works on divination and dream interpretation are attributed to Astrampsychus,¹⁰ but the veterinary work is not known. A certain Cleodamas, from the city of Achnai in Thessaly, is said by Stephanus of Byzantium to have written on riding and horse-breaking (*περὶ ἱππικῆς καὶ πωλοδαμαστικῆς*); but there is no indication that veterinary material was included in his work.¹¹

Veterinary treatments for horses and other domestic animals appear to have figured in the lost work on agriculture by Mago of Carthage, probably composed in the third or second century BC.¹² Little is known about its authorship or date, but it is clear that Mago's work was very influential, so it is worth digressing for a moment to outline what is known about the history of the text. Cicero refers to Mago as the proverbial source of information about farming;¹³ for Columella, Mago is 'the father of agriculture' (*rusticationis parens*).¹⁴ Pliny informs us that after the destruction of Carthage in 146 BC, Mago's work, in twenty-eight books, was translated from Punic into Latin by order of the Roman Senate, despite the fact that the work by Cato on the same subject was already available. The undertaking is said to have been entrusted to men expert in the Punic language, among whom one D. Silanus was prominent.¹⁵ A Greek version in twenty books, which also included material from other Greek writers,¹⁶ was made, apparently again from Punic rather than from the Latin, by Cassius Dionysius of Utica,¹⁷ who

⁹ *Souda*, Adler, A 4251. One cannot help wondering whether his name was confused with that of the veterinary author Apsyrus. Astrampsychus is mentioned by Diogenes Laertius, Proem. 2.

¹⁰ *PGM* VIII. 1–26; *Sortes Astrampsychi*, vol. I, ed. G. M. Browne (Leipzig, 1983), vol. II, ed. R. Stewart (Leipzig and Munich, 2001). See also E. Riess, 'Astrampsychos', in *RE* II (1896), 1796–7; C. Harrauer in *Der Neue Pauly*, 2 (Stuttgart, 1997), 121–2.

¹¹ Stephanus, s.v. Ἀχναί.

¹² Fragments of his work have been collected most recently by F. Speranza, *Scriptorum romanorum de re rustica reliquiae* (Messina, 1974), 75–119; the date of the work is discussed pp. 77–9, with the suggestion that Mago be identified with Hannibal's brother Mago, who fought in Italy and Gaul and died in 203 BC. J. Heurgon, 'L'Agronome carthaginois Magon et ses traducteurs en latin et en grec', *CRAI* (1976), 442, favours a more general dating of Mago to the time of the Punic Wars, i.e. 3rd to mid-2nd c. BC. See also K. Ruffing, 'Mago', in *Der Neue Pauly*, 7 (Stuttgart and Weimar, 1999), 702–3; R. Reitzenstein, *De scriptorum rei rusticae... libri deperditis* (Berlin, 1884), 44 ff. The *Καρχηδόνιος σοφὸς Μάγων* mentioned by Stephanus, s.v. *Καρχηδών*, probably refers to this author.

¹³ *De oratore* 1.249.

¹⁴ Columella I.1.13.

¹⁵ *NH* XVIII.5.

¹⁶ Varro, *Res rustica* I.10; the list of sources given by Varro, I.8–10 is repeated by Columella I.1. 7–13; and in Pliny, *NH* I (sources of bk. VIII).

¹⁷ Stephanus, s.v. Ἰτύκη attributes *ρίζοτομικά* 'works on root-cutting', i.e. herbal medicine, to the same author. See M. Wellmann, Cassius (42) Dionysius, *RE* III (1899), col. 1722.

dedicated the work to the praetor Sextilius (c.88 BC). The title of this work seems to have been *Γεωργικά* (though that may simply be a descriptive term).¹⁸ Cassius' work in turn was condensed into six books by Diophanes of Bithynia for the Galatian king Deiotarus (in the middle of the first century BC), and into two by Asinius Pollio of Tralles (first century BC).¹⁹ Through these translations and adaptations, Mago's work was used in the agricultural compilations of Varro (first century BC) and Celsus (first century AD); Celsus' text, now lost, was used by Columella. Veterinary material copied nearly word-for-word from Columella is also included in book 14 of the agricultural manual of Palladius, compiled probably in the mid-fifth century AD.²⁰ Diophanes was a source for the Greek compilation of Anatolius of Berytus, and, through Anatolius, was incorporated into the *περὶ γεωργίας ἐκλογαί* of Cassianus Bassus, and the medieval *Geoponica*. Descriptions of the points of the horse, advice on breeding, and remedies for horses, cows, and other domestic animals common to Varro, Columella, Palladius, and Anatolius/Cassianus Bassus/the *Geoponica* have been attributed to Mago, or rather to Cassius Dionysius–Diophanes.²¹ Mago's influence may also be detected in the *Hippiatrica*, as we shall see. Antique veterinary literature thus had close links to agricultural literature as well as to human medicine. The role of translation in the transmission of this family of texts is also worthy of note, and accounts for the kinship between Greek and Latin agricultural compilations.

The earliest occurrence of the Greek word for horse-doctor, *ἵππιατρός*,²² is in a long inscription of around 130 BC, which grants the conventional privileges of *proxenia* to one Metrodorus son of Andromenes, a native of Pelinna in Thessaly who, 'being a hippiatros' (*ὑπάρχων ἵππιατρός*), treated the horses of Lamia without demanding payment from their owners.²³ The Greek word is quoted by Varro:

¹⁸ The title is named in a scholion to Lucian and by Athenaeus; see Speranza, fragments 42, p. 105, and 63, p. 118.

¹⁹ Varro, *RR* I.10; repeated by Columella I.1.7–13; *Souda*, s.v. *Πωλίων*. See J. Heurgon, 'L'Agronome carthaginois Magon', 441–56; J. P. Mahaffy, 'The Work of Mago on Agriculture', *Hermathena*, 7 (1890), 30–1.

²⁰ Ed. R. H. Rodgers, *Palladii Rutilii Tauri Aemiliani... Opus agriculturae, De veterinaria medicina, De insitione* (Leipzig, 1975).

²¹ E. Oder, *Anecdota Cantabrigiensia* (Berlin, 1896), 14 ff.; O. Hempel, *De Varronis rerum rusticarum auctoribus quaestiones selectae*, diss. (Leipzig, 1908), 63 ff.

²² The accent of the word seems to have been uncertain in antiquity. According to Herodian, τὰ δὲ παρασύνθετα καὶ φυλάττει καὶ ἀναβιβάζει... τὸ δὲ ἱατρός φυλῆατρος ἀναβιβάζει καὶ ἐν τῷ ἀρχιατρός καὶ ἵππιατρός φυλάττει, ed. Lentz, I, p. 229. But in inscriptions and in manuscripts alike the word is presented with a great deal of variation in spelling and accent: *ἵπποιατρός*, *ἵππιατρος*, etc. The spelling is not normalized in the Teubner edition of the *Hippiatrica*.

²³ *IG* IX. 2. 69 (now in the Epigraphical Museum in Athens).

De medicina vel plurima sunt in equis et signa morborum et genera curationum, quae pastorem scripta habere oportet. Itaque ab hoc in Graecia potissimum medici pecorum ἵππίατροι appellati.²⁴

In the matter of treatment there are, in the case of horses, a great many symptoms of disease and methods of treatment, and the head groom should have these written out. It is for this reason that in Greece those who treat livestock are called by the special name, *hippiatroi*, ‘horse-doctors’.

Celsus (first century AD), in the introduction to his medical encyclopaedia, refers to *ii qui pecoribus ac iumentis medentur*, ‘those who heal cattle and horses’, without using a more specific term.²⁵ In Graeco-Latin glossaries, ἵππιατρός is given as the equivalent of *veterinarius* and *mulomedicus*.²⁶

It is from Late Antiquity that we have the greatest quantity of documentary evidence about *hippiatroi*.²⁷ Gravestones of pagan and Christian horse-doctors from all over the Roman empire are evidence of varying levels of literacy and prosperity.²⁸ Private documents, such as letters and receipts for services, provide information about horse-doctors,²⁹ and also attest to concern for the welfare of horses.³⁰ Moreover, in this period, the practice of veterinary medicine was both regulated and encouraged by the state. In 301 Diocletian’s Price-Edict set the fees to be paid to a horse-doctor for basic treatments including purging and trimming the hooves.³¹ An edict to the Praetorian

²⁴ RR II.7.16. ²⁵ *De medicina*, proem. 65.

²⁶ *Glossae Latinograecae et Graecolatinae*, ed. G. Goetz and G. Gunderman = *Corpus Glossariorum Latinorum*, II (Leipzig, 1888), pp. 207, 332. On *veterinarius* and the later term *mulomedicus* (which appears from the 4th c. on), see J. N. Adams, ‘The Origin and Meaning of Lat. *veterinus*, *veterinarius*’, *Indogermanische Forschungen*, 97 (1992), 70–95; idem, *Pelagonius and Latin Veterinary Terminology in the Roman Empire*, 571.

²⁷ O. Nanetti, ‘ΙΠΠΙΑΤΡΟΙ’, *Aegyptus*, 22 (1942), 49–54; Adams, *Pelagonius*, 53 ff.

²⁸ References to gravestones from Edessa, Dion, Nicopolis ad Istrum, Phrygia, Crete, Thessalian Thebes, and Bithynia in D. Feissel, *Recueil des inscriptions chrétiennes de Macédoine du IIIe au VIe siècle* (Paris, 1983), no. 30, pp. 46–7; to these add one found at Delos: K. S. Pittakis, ‘Αρχ. Έφφημ. (1841), no. 602, p. 432; a Christian gravestone from Corinth: P. Clément, ‘Korinthas, veterinary’, in S. M. Burstein and L. A. Olin (eds.), *Panhellenica: Essays in Ancient History and Historiography in Honor of Truesdell Sparhawk Brown* (Los Angeles, 1980), 187–9; a graffito at Palermo: A. Ferrua, *Note e giunte alle iscrizioni cristiane antiche della Sicilia* (Vatican, 1989), no. 207, p. 55.

²⁹ Nanetti, ‘ΙΠΠΙΑΤΡΟΙ’, 49–54 lists *P. Oxy.* I. 92 (337); *P. Ross.-Georg.* (ed. G. Zereteli (Tiflis, 1925–35)) V. 60. 4 (late 4th c.); *P. Lips.* (ed. L. Mitteis (Leipzig, 1922)), 101 (4th–5th c.), and *P. Oxy.* XVI. 1974 (538); to which T. Gagos adds *SB* (ed. F. Preisigke (Strassburg Berlin, and Leipzig, 1913–22)), XIV.12059 (3rd/4th c.), *CPR* (ed. C. Wessely (Vienna, 1895)), VII. 38 (4th c.), and *PSI* (Papyri greci e latini (Florence, 1912–)), VIII. 955 (6th c.) in his commentary on *P. Oxy.* LXI. 4132 (619).

³⁰ C. Gorteman, ‘Sollicitude et amour pour les animaux dans l’Égypte gréco-romaine’, *Chronique d’Égypte*, 63 (1957), 101–20.

³¹ 7.20–1: ἵππιατρῶν κάρθρων [i. e. καθαρμῶν?] καὶ ὄνυχισμοῦ; *mulomedico tonsurae et aptaturae pedum...depleturae et purgaturae capitis*. For interpretations of the latter services, see K.-D. Fischer, ‘Zu den tierärztlichen Verrichtungen in Edict. Diocl. 7,21’, *ZPE* 48 (1982), 171–4, and a different opinion in Adams, *Pelagonius*, 61.