EXPLORING GREEK MANUSCRIPTS IN THE LIBRARY AT WELLCOME COLLECTION IN LONDON

Edited by
Petros Bouras-Vallianatos

Exploring Greek Manuscripts in the Library at Wellcome Collection in London

This book offers new insights into a largely understudied group of Greek texts preserved in selected manuscripts from the Library at Wellcome Collection, London. The content of these manuscripts ranges from medicine, including theories on diagnosis and treatment of disease, to astronomy, philosophy, and poetry. With texts dating from the ancient era to the Byzantine and Ottoman worlds, each manuscript provides its own unique story, opening a window onto different social and cultural milieus. All chapters are illustrated with black and white and colour figures, highlighting some of the most significant codices in the collection.

Petros Bouras-Vallianatos is Wellcome Lecturer in History of Medicine at The University of Edinburgh.

Paschal table with concentric circles, from Londiniensis Wellcomensis MS.MSL.60, f. 61r.

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To Richard Aspin

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Preface

This edited volume emerged out of an international symposium on *Greek Manuscripts at the Wellcome Library*, which took place on 25 May 2017 at the Wellcome Trust Gibbs Building in London. This conference would not have been possible without the generous support of the Library at Wellcome Collection. The Library and the Wellcome Trust kindly provided me with digital images and covered the Open Access publishing costs respectively. I am grateful to all the speakers and chairs (Ronit Yoeli-Tlalim, Dimitrios Skrekas, Peregrine Horden) for contributing to the lively discussion during the conference. I would like also to thank Marjolijne Janssen, Marc Lauxtermann, and Georgi Parpulov for their inspiring papers, although these do not appear in the present volume. Special thanks go to Michael Greenwood from Routledge for his professionalism and the several anonymous peer reviewers for their comments. I am also grateful to Elder Ephraim, the Abbot of the Holy and Great Monastery of Vatopedi on Mount Athos for allowing reproduction of the image from Codex Vatopedinus 188. My sincere thanks also go to the Wellcome librarians for facilitating *in situ* access to manuscripts during my several visits to the Library and especially to Elma Brenner, Nikolai Serikoff, and Stefania Signorello. This project would not have been possible without the overwhelming support of Richard Aspin, who was Head of Research in the Wellcome Library when my descriptive catalogue of the Greek collection was being produced. He also envisaged and helped with the organisation of the international symposium and warmly encouraged the production of this volume, which is wholeheartedly dedicated to him.

Petros Bouras-Vallianatos

Edinburgh
November 2019

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Petros Bouras-Vallianatos is Wellcome Lecturer in History of Medicine at the University of Edinburgh. He has published widely on Byzantine medicine and pharmacology, cross-cultural medical exchanges in the Eastern Mediterranean, the reception of the classical medical tradition in the Middle Ages, and Greek palaeography, including the first descriptive catalogue of the Greek manuscripts at the Wellcome Library in London. He is the author of *Innovation in Byzantine Medicine: The Writings of John Zacharias Aktouarios (c.1275–c.1330)* (Oxford University Press, 2020) and has co-edited *Greek Medical Literature and its Readers: From Hippocrates to Islam and Byzantium* (Routledge, 2018) and *Brill's Companion to the Reception of Galen* (Brill, 2019).

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Orly Lewis is a Senior Lecturer at the Department of Classics at The Hebrew University of Jerusalem and is leading a research project on Greco-Roman anatomy (ERC Starting Grant). She has published on ancient anatomy, physiology and diagnosis, and on the relationship between theory and practice in ancient scientific method. Her award-winning monograph (Brill, 2017) is a philological and historical study of Praxagoras of Cos' ideas on pneuma and the vascular system.

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Vivian Nutton, Emeritus Professor of the History of Medicine at UCL and Professor of the History of Medicine at the First Moscow State Medical University, has worked extensively on the Galenic tradition in medicine, editing and translating several of Galen's works, as well as editing and translating important annotations by Vesalius. Among his recent books are *Galen: On Problematical Movements. Texts, Translation and Commentary* (2011); *Ancient Medicine*, second edition (2012); *Johann Guinter and Andreas Vesalius, Principles of Anatomy according to the Opinion of Galen* (2017); and *John Caius, An Autobibliography* (2018). His latest project is a much-delayed study of Galen.

Anne Tihon is Professor Emerita of the Université Catholique de Louvain, Louvain-la-Neuve, Belgium. She has published critical editions of the commentaries of Theon of Alexandria on Ptolemy's *Handy Tables*, several editions of Byzantine astronomical texts, and the edition and analysis of the astronomical papyrus P. Pouad inv. 267A (with Jean-Luc Fournet). She has written many papers on Byzantine astronomy and is currently working on a critical edition of Ptolemy's *Handy Tables* (with Raymond Mercier).

Maria Tomadaki is a Postdoctoral Researcher in Byzantine studies at Ghent University. Her research interests are Byzantine literature, textual criticism, and the reception of ancient poets in Byzantium. She worked for several years as a scientific collaborator on the *Database of Byzantine Book Epigrams*. She is currently completing a critical edition of 236 iambic poems by John Geometres and she is also working on the first full edition of John Tzetzes' *Theogony*.

Barbara Zipser is a Senior Lecturer at Royal Holloway University of London. She studied Latin and Greek at Heidelberg University (PhD 2003), after which she held Wellcome Trust-funded research positions at

UCL and then RHUL. Her field of research is the manuscript transmission of Byzantine medical texts, and in particular in the fields of general practice and ophthalmology. She also has a special interest in medical terminology in Latin, Greek, and Arabic sources, and medical sources written in vernacular Greek. She recently won a Wellcome Trust Collaborative Award for an international collaboration with Kew Gardens, Zurich University of Applied Sciences, and the University of Haifa to develop a methodology for the identification of *materia medica*.

Note to the reader

Primary sources are cited by the name of the author, followed by the title of the work, the numbering of the traditional division into books and/or sections where applicable, as well as a reference to the edition (volume in Roman numerals, page and line in Arabic numerals), e.g. Galen, *Method of Medicine*, 1.4, ed. Kühn (1825) X.31.11-12. For secondary sources, the Harvard author-date system is followed, e.g. Hunting (2003: 296). Where an implied word (or words) needs to be made explicit for reasons of clarity, it is supplied within angle brackets, e.g. 'while others <are> solstitial'. In most cases transliteration of Greek follows the Library of Congress system, e.g. 'dynamis' not 'dunamis'. The term 'remedy' is used throughout this volume with reference to a set of instructions of various kinds (e.g. medical, magical, religious), which includes diagnostic, prognostic, and/or therapeutic content. The term 'recipe' is used to signify the details for the use and preparation of a particular composite drug.

The Wellcome Greek Collection

Petros Bouras-Vallianatos

The Library at Wellcome Collection houses nearly 9,000 manuscripts in about twenty-five different languages, such as Greek, Latin, Arabic, Armenian, Ethiopic, Persian, Sanskrit, Malay, Mongolian, Tibetan, and Korean, dating from antiquity to the modern period.[1] The Greek collection is one of the smallest, comprising a few papyri fragments and sixteen manuscripts, including some extraordinary examples. Among the papyri is the so-called Johnson Papyrus, one of the earliest surviving fragments from an illustrated herbal, showing the plants σύμφυτον (comfrey) on the recto (see Figure 0.1) and φλόμμος (mullein) on the verso. This papyrus was discovered in Antinoöpolis, on the east bank of the Nile in Egypt, and is dated to the early fifth century AD.[2] Among the Wellcome papyri is also the earliest surviving (fragmentary) witness of the Hippocratic *Oath* itself (*P.Oxy.* XXXI 2547), found in Oxyrhynchus, 160 km southwest of Cairo, and dated to the late third/early fourth century AD.[3]

The Greek manuscripts date from the fourteenth to the eighteenth centuries and the academic community worldwide has not been very familiar with this material until very recently. Following the publication of the first descriptive catalogue in 2015,[4] this volume aims to make some important examples from the Greek collection more widely known by providing specialised studies on particular texts in these manuscripts. In this introduction, I shall give a critical overview of the contents of all the Greek manuscripts and at the same time I shall point out the contributions made

1 Many of them have been digitised. Medieval and early modern digitised manuscripts are available at https://wellcomelibrary.org/collections/browse/collections/digwms/(accessed, 20 October 2019).

2 Wellcome shelfmark: MS.5753. See Marganne (2001: 3–4) with references to earlier bibliography.

3 Wellcome shelfmark: MS.5754. On this, see Leith (2017: 40–1). On its importance for the reconstruction of the Greek text of the *Oath*, see the discussion in the most recent critical edition by Jouanna (2018: lxxxviii–xciv).

4 Bouras-Vallianatos (2015). See also pp. 181–2 in this volume for three brief additions/corrections to the catalogue.

Figure 0.1 Johnson Papyrus, recto. Illustration of comfrey.

by the various chapters, which will hopefully constitute the starting point for further study and examination of this hitherto neglected group of Greek codices. I shall take a chronological approach, starting from the earliest codices.

Vivian Nutton (Chapter One) provides a vivid account of the creation of the Wellcome Greek collection, the previous owners of the manuscripts, and how they were finally purchased by the Library. Among the sixteenth-century manuscripts, we can distinguish two groups. The first contains eleven manuscripts (i.e. MS.MSL.1, 14, 52, 60, 62, 109, 112, 114, 124, 126, and 135) and was first collected by the English physician and bibliophile Anthony Askew (1722–74), who had an excellent knowledge of both Greek and Latin. Askew's collection was subsequently owned by another physician, James Sims (1741–820), before he sold it to the Medical Society of London in 1802. It only became part of Wellcome Collection in the 1980s, thanks more especially to the efforts of the Wellcome Librarian Noel Poynter (1908–79) and the first Director of the Wellcome Institute Peter Williams (1925–2014). There are also another five codices (MS.289, 354, 413, 498, and 4103) that were bought separately between 1901 and 1936, i.e. in the

lifetime of the American pharmacist and avid collector of artefacts, Sir Henry Wellcome (1853–936).

The earliest manuscripts in the collection are MS.MSL.114 and MS. MSL.14. MS.MSL.114 contains a complete copy of Paul of Aegina's (fl. first half of the seventh century) *Epitome*, a seven-volume medical handbook dealing with dietetics, fevers, and diseases arranged in a *a capite ad calcem* (from head to toe) order, dermatology, bites of venomous animals and antidotes for poisons, surgery, and pharmacology.[5] The manuscript was copied around 1335–45 by George Chrysokokkes.[6] Several later hands have added recipes in the margins of the last few folia with text (ff. 195r–197v) and the entire main area of f. 198r-v, which would suggest that it was once owned by medical practitioners (see Figure 0.2). Due to difficulties in dating and identifying hands, there has been no research into the anonymous recipes that appear in significant numbers in Byzantine manuscripts. These recipes can improve our understanding of easily procurable drugs and daily practice in the medieval and early modern Eastern Mediterranean Greek world. Among the examples in MS.MSL.114,[7] there are mentions of various sugar-based potions (such as ροδοσάχαρ/rosewater with sugar, e.g. f. 195v, and ζουλάπιον/julep, f. 197r), vegetal *materia medica*, such as ginger (τζετ-ζέφυλ f. 196r), mastic (μαστίχι, f. 197r), and pomegranate (ρόδια, f. 197r), or less common animal substances, such as excrement of eagle and hawk (ἀετοῦ, ἱέρακος κόπρος, f. 197r) for the treatment of skin diseases.

One of the most interesting manuscripts of the collection is MS.MSL.14.[8] This is a tiny medical codex consisting of two distinct parts and dated to the first half of the fourteenth century. It is mainly made up of various collections of diagnostic, prognostic, and therapeutic advice for daily use. Barbara Zipser, who has previously provided the first edition of John Archiatros' *Iatrosophion*, the longest text in this manuscript,[9] edits and translates into English a brief collection of diagnostic and therapeutic recommendations on pp. 76–81 in the first part of her study (Chapter Three). Zipser shows that some of the recipes coincide with John Archiatros' *Iatrosophion* (version *ω*) and are also very similar to the collections of recipes associated with Byzantine *xenons*, the so-called *xenonika*.[10] One can see recipes for the treatment of fevers, various kinds of haemorrhages, earache, and vomiting. Vegetal substances are by far the most often cited ones, including, for example, aloe, wormwood, and myrtle. One could note, for example, the use of the mineral substance Lemnian earth for the treatment

5 Ed. Heiberg (1921–4).

6 *RGK* III 126, in which the scribe is identified with the well-known astronomer George Chrysokokkes. On the debatable nature of this identification, cf. Mondrain (2012: 631–2).

7 Bouras-Vallianatos (2015: 309–10).

8 Bouras-Vallianatos (2015: 283–6).

9 Ed. Zipser (2009: 173–329, version *ω*).

10 On these texts, see Bennett (2017).

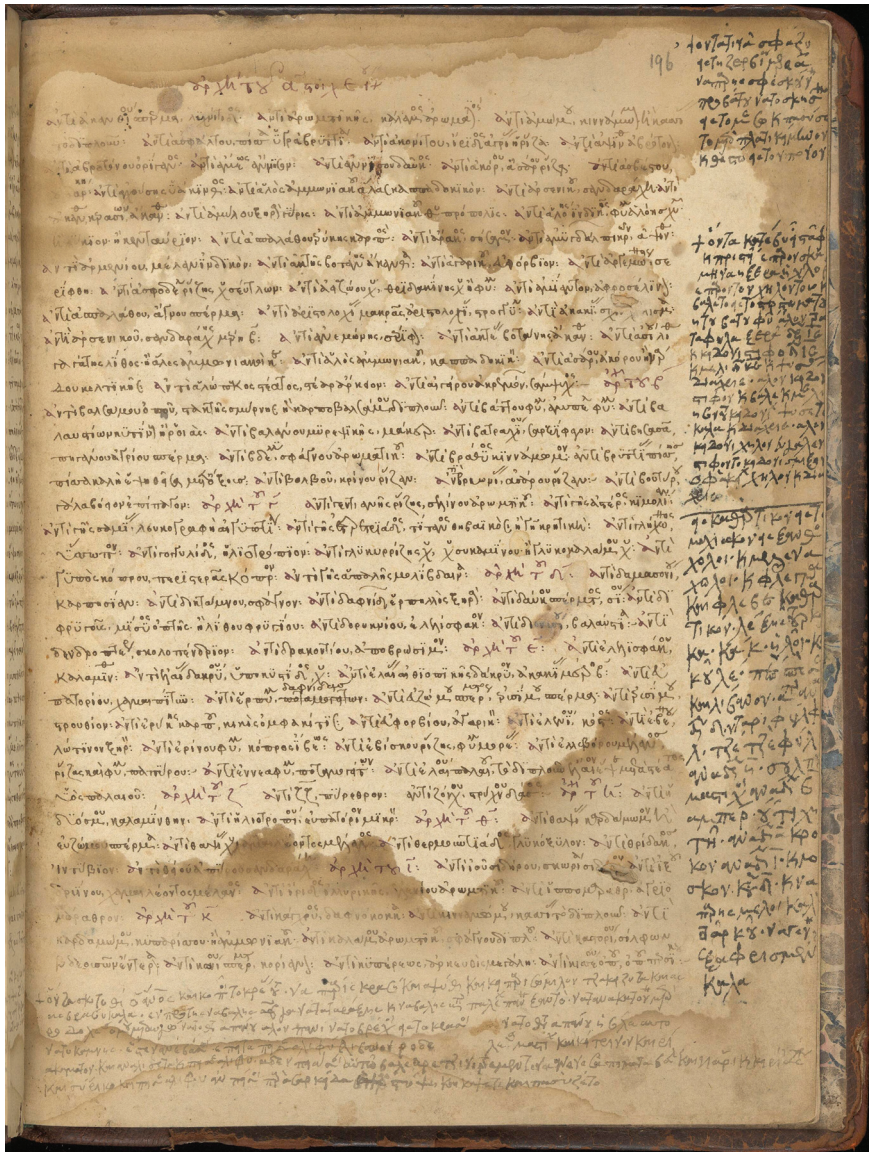

Figure 0.2 Londiniensis Wellcomensis MS.MSL.114, f. 196r.

of dysentery. Lemnian earth was a famous ancient and medieval panacea mineral drug, the strong anti-bacterial effect of which has been recently identified by a group of scholars in Glasgow, based on analysis of

a sixteenth-century sample.[11] In another case, smoke from the burnt skin of a hedgehog is applied to the groin of someone suffering from strangury, in addition to bloodletting. There are also recipes of a cosmetic nature, such as the use of boiled base horehound with wine for halitosis. In the second part of her chapter, Zipser discusses some excerpts from pp. 84–107, where, apart from the recommendation of drugs and brief diagnostic details, one occasionally finds details with magical and religious elements, indicating the large variety of approaches to healing that were available in the Middle Ages and also to the interrelationship between them.

Tina Lendari and Io Manolessou (Chapter Four) offer the first comprehensive linguistic analysis of the language of Byzantine and post-Byzantine *iatrosophia*, basing themselves on MS.MSL.14 and MS.4103 and showing their importance as invaluable sources in the understanding of the history of the development of the Greek language. They argue that the language of MS.MSL.14 displays a middle register of Medieval Greek, including an important number of archaic elements. One can find some innovative elements of nominal inflection in this version of John Archiatros' *Iatrosophion*, such as the inflectional class of feminine nouns (e.g. ἀλωποῦς) and innovative forms of the adjectives ending in -ύς (e.g. δριμέου χυμοῦ, χυμοὺς παχέους). In terms of vocabulary, the absence of loanwords from Italian and Turkish is notable, pointing to an early date. MS.MSL.14 is also the earliest known text in which a number of Medieval Greek words appear, such as ἀβγούτσικον, γαϊδάρα, and φαγώνομαι. In the second part of the manuscript (pp. 272–317), which preserves an interesting set of diagnostic details involving the examination of urines and the pulse as well as therapeutic instructions, often including superstitious connotations, there are several low-register elements. But, as in the first section of the manuscript, the text should not be considered dialectical and thus a particular dialectical origin cannot be determined.

Next comes MS.354 of which the first part was written in the first quarter of the fifteenth century and which preserves two Hippocratic texts that were circulated widely in the medieval period, i.e. *Aphorisms* and *Prognostic*.[12] The first of these is presented here together with a commentary on it by the fifth-century scholar Damaskios. Each aphorism is followed by the relevant commentary, preceded either by the term ἑρμηνεία (interpretation/explanation) or σχόλιον (interpretation/comment) in magenta red ink, showing the reader where each comment starts and thus creating a user-friendly mise-en-page (see Figure 0.3). The second part of the manuscript is of later date (AD 1582–7) and preserves a commentary by the sixth-century scholar Stephen on the Hippocratic *Prognostic*. It was copied by a well-known

11 Photos-Jones et al. (2018).

12 Bouras-Vallianatos (2015: 317–18).

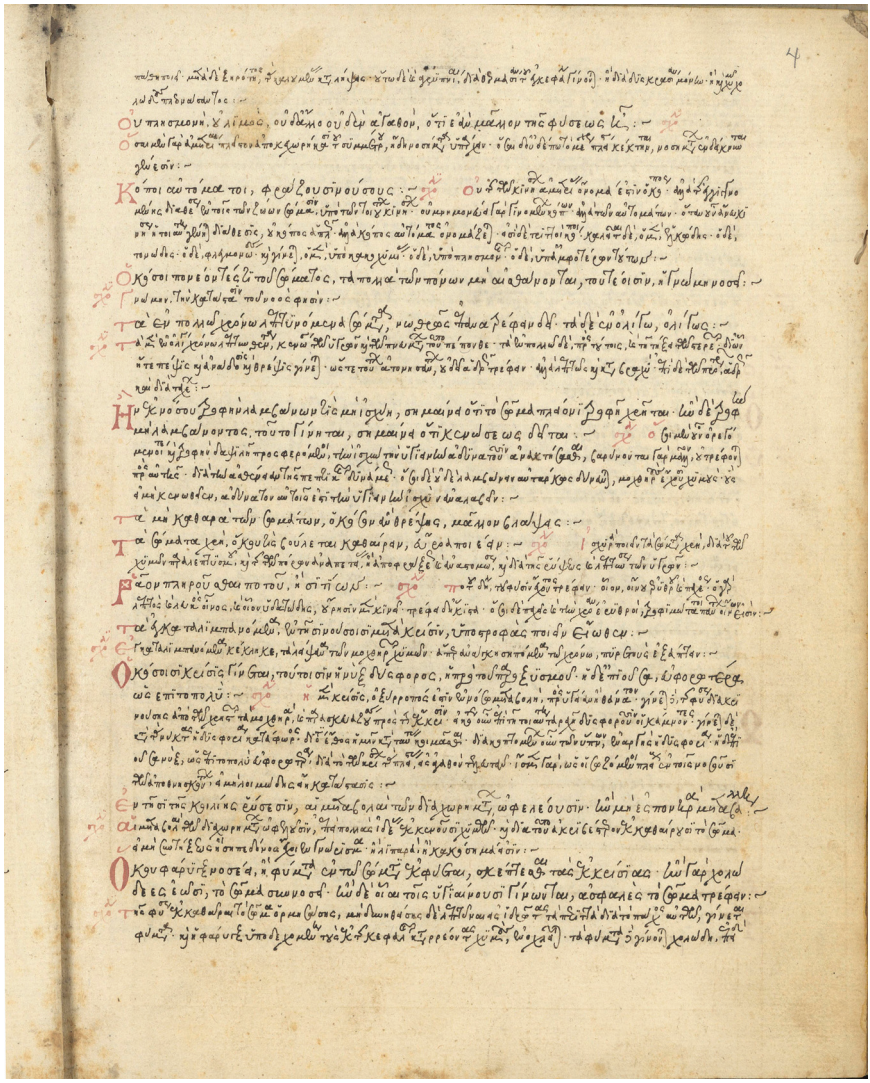

Figure 0.3 Londiniensis Wellcomensis MS.354, f. 4r.

sixteenth-century Greek scribe, Andreas Darmarios, who worked in Italy, Germany, and Spain.[13]

13 *RGK* I 13, II 21, III 22. On this scribe, see Elia (2014).

One of the longest manuscripts is certainly MS.MSL.52, which consists of two volumes, 52A and 52B, bound separately, but foliated continuously.[14] 52B is made up of two distinct parts, 52B1 and 52B2. 52A and 52B1 were copied by the physician and scribe Demetrios Angelos[15] before 1463 and contain the medical corpus of the late Byzantine physician John Zacharias Aktouarios (ca. 1275–ca. 1330). John made several important innovations in the fields of human physiology, pharmacology, and uroscopy, including the introduction of a graduated urine vial that became extremely popular in the Renaissance West after the translation of his *On Urines* into Latin by Leo of Nola (1458/9–1525) in 1519.[16] A diagram of John's urine vial has been drawn in the margin of f. 54r. As in other manuscripts already mentioned, here too we can see recipes added by later hands, including one for a julep for the dissolution of kidney or bladder stones by the otherwise unknown Photios, an infirmarian (νοσοκόμος) on f. 44r.

52B2 was copied around 1445 and transmits *inter alia* diagnostic excerpts from Paul of Aegina's *Epitome* and Aetios of Amida's *Tetrabiblos* on the pulse, Galen's *On the Pulse for Beginners*, and Ps.-Galen's *On Procurable Remedies*. The longest work in this part is the so-called Anonymus Parisinus, *On Acute and Chronic Diseases*, which took its name from the first manuscript discovered of this treatise, which was found in Paris, viz. Parisinus suppl. gr. 636 (sixteenth century). The Wellcomensis manuscript contains twenty-nine of the fifty-one sections of the text. This treatise is of great significance since it is one of the very few Greek medical texts to survive from the period between the late fourth century BC and the second century AD (i.e. the Hellenistic and Roman periods). It thus provides a window onto the progress made in medical theories, especially as regards acute and chronic diseases, between the composition of the Hippocratic corpus (fifth–fourth century BC) and Galen (AD 129–216/17). Orly Lewis (Chapter Two) provides a detailed analysis of the text in light of the development of ancient medical concepts relating to aetiology, symptomatology, and therapeutics, including the role of pneuma. Among the most important developments emphasised here is the notion of the 'affected part', viz. the particular part(s) of the body to be treated, which was developed in post-classical medicine. Even more interesting is the wide range of therapeutic recommendations that one finds in the Anonymus Parisinus, including various techniques of bloodletting, externally and internally applied drugs, cuppings, diet, exercise, or even the use of amulets, as well as the distinction between curative and restorative treatment. There is also interesting information on how physicians tested different therapeutic agents on a particular

14 Bouras-Vallianatos (2015: 286–92).

15 Mondrain (2010). See also *Database of Byzantine Book Epigrams*, s.v. Demetrios Angelos, at www.dbbe.ugent.be/persons/695 (accessed, 20 October 2019).

16 Bouras-Vallianatos (2020: 205–14).

patient, thus showing the importance of feeding medical practice with empirical observations. All in all, Lewis argues that the work must have been written as a 'handbook' for practising physicians, encapsulating the author's theoretical knowledge in combination with his rich practical experience.

MS.MSL.60 is a large medical miscellany consisting of several brief texts with a diagnostic, prognostic, and therapeutic focus, some collections of recipes, and a few astrological opuscules, including some tables on the computation of the date of Easter (see Book Frontispiece).[17] It is dated to the second half of the fifteenth century and is clearly connected with contemporary medical practice in the Eastern Mediterranean. For example, one can see informal marginal annotations, including comments on the use of particular simple and composite drugs mentioned in the manuscript,[18] or even synonyms for plant substances in Greek and Turkish.[19] There are also recipes, occasionally added by later hands on blank pages or in the blank space left between the end of one treatise and the beginning of another.[20] Its contents include excerpts from the Hippocratic *Aphorisms* and *Prognostic*, Symeon Seth's *Treatise on the Capacities of Foodstuffs*, Theophilos' works on fevers, urines, and the pulse, Demetrios Pepagomenos' recipe book, and an anonymous, unedited medical compilation on diagnosis and therapy on ff. 73r–124v. There are also several brief prognostic and diagnostic treatises attributed to Arab and Persian physicians, indicative of the high degree of pluralism in the material available in late Byzantium, where Greek and Byzantine medical knowledge was interwoven with imported Arabic medical lore, especially from the twelfth century onward.[21] Another closely related text is a noteworthy bilingual glossary of plant names (f. 71v) in Greek and Arabic (in Greek transliteration), intended to facilitate the introduction of Greek readers to the oriental *materia medica* that had entered Greek medical literature and practice through translations of medical works from Arabic into Greek.[22]

Another fifteenth-century manuscript is the MS.498 dated to 1492.[23] It contains various poems, including autograph epigrams on the Virgin Mary and Christ by a teacher of the Patriarchal School in Constantinople and notable theologian Manuel Korinthios (ca. 1460–1530/1), as well as

17 Bouras-Vallianatos (2015: 292–302).

18 See, for example, the long annotation on f. 129v, which refers to the effectiveness of a certain recipe in the main text: inc. Τὸ εμπλάστρι ὁπου γένεται εἰς τὸν πόνων τῶν ποδαρίων, des. καὶ θετις το εἰς τὸν πόνον; and the comment on how beneficial it is to eat onions, which corresponds to the relevant chapter in Symeon Seth's dietetic treatise: τα κρομίδια να τα βραξης να τα τρογεις ἤνε καλα.

19 E.g. f. 79r: 'τὸ οξιφίνικον τὸ λεγη καὶ τουρκικά μηρχέντι' for the Turkish 'demirhindi' from the Arabic 'tamar hindī' (tamarind). Cf. Ed. Delatte (1930) II.87.21: 'τεμερχχεντί τὸ ὀξυφοίνικον'.

20 Of the various recipes added by later hands, the most notable example is an excerpt from a long recipe for theriac in f. 72r: inc. Ὁ περὶ τῶν ἀντιδότων … ἀντίδοτος ἡ θηριακή, des. μετὰ συμφύτου ῥίζης.

21 For a recent critical overview of Arabo-Byzantine medical translations, see Touwaide (2016).

22 Ed. Serikoff (2013).

23 Bouras-Vallianatos (2015: 321–4).

a collection of astronomical works. Maria Tomadaki (Chapter Six) focuses on the eight poems found in the manuscript, providing the first critical edition, English translation, and commentary. Seven of the poems have acrostics, often highlighted in red ink, spelling out either Manuel's name or his title/profession, i.e. Great Rhetor (Μέγας ῥήτωρ). Two poems are not strictly theological in nature; one laments the vanity of life and the other is about the zodiac signs and composed in heptasyllables. The latter is particularly interesting since there is a clear attempt by the unknown author to Christianise the popular subject of astrology. It also alludes to the astronomical content of the manuscript, which is discussed by Anne Tihon (Chapter Five). The longest part of the manuscript transmits the Byzantine adaptation of the Jewish treatise *Shesh Kenaphayim* (the *Six Wings*), composed by Immanuel Bonfils around 1350, which is an important testimony to the introduction of Jewish astronomy into late Byzantium. The text is ascribed to the otherwise unknown Byzantine author, i.e. Michael Chrysokokkes *notarios* of the Great Church, and was written around 1435. The Greek title is *Hexapterygon*, which is a literal translation of the Hebrew version. It was a particularly popular text/treatise in the Greek-speaking Mediterranean, surviving in about fifteen manuscripts, including two anonymous adaptations and a sixteenth-century commentary. It mainly consists of various astronomical tables (each called a 'Πτερόν'/Wing) concerning the calculation of various celestial phenomena, such as syzygies and eclipses. On the basis of some medallions with depictions of the zodiac signs, Tihon shows that the Wellcomensis version is most probably based on codex no. 188 of the Holy and Great Monastery of Vatopedi on Mount Athos.

The Library at Wellcome Collection also owns a group of three medical manuscripts that were copied separately in the first half of the sixteenth century in Italy. They show no signs of substantial use or any significant annotations by later hands, apart from some notes on variant readings. They transmit texts by Aretaeus of Cappadocia, Rufus and Ps.-Rufus of Ephesus (MS.MSL.62), Aetios of Amida (MS.MSL.109), and Ps.-Galen (MS.289).[24] Their importance as textual witnesses is yet to be determined since they have not so far been used for the production of critical editions of the relevant texts. MS.MSL.135 is a sixteenth-century manuscript that originated in the Eastern Mediterranean.[25] It transmits the medical corpus of the Byzantine medical author Theophanes Chrysobalantes and Symeon Seth's *Treatise on the Capacities of Foodstuffs*. The codex also includes a significant number of recipes added by various later hands and annotations commenting on or supplementing the contents of the main text.

24 Bouras-Vallianatos (2015: 302–7, 316–17).

25 Bouras-Vallianatos (2015: 314–16).

The collection contains four seventeenth-century manuscripts, i.e. MS. MSL.1, MSL.124, MSL.126, and MS.4103.[26] Arguably, the most interesting is MS.MSL.1, a collection of philosophical texts in the Aristotelian tradition together with some exercises for learning Greek that were used for the education of Greek-speaking students in the seventeenth century. Nikos Agiotis (Chapter Seven) provides a meticulous study of the various texts, revealing some interesting connections concerning the transmission and appropriation of Greek translations of commentaries by Renaissance Latin authors, including the hitherto unknown Greek translation of the Spanish Jesuit Francisco de Toledo's (1532–96) widely circulated Latin work on Aristotelian logic *Commentaria una cum quaestionibus in universam Aristotelis logicam*. Agiotis presents further evidence attesting to a possible connection between the collection of texts in this codex and the Collegio Greco di Sant'Atanasio, the Greek educational institution in Rome, which was administered by Jesuits for almost two centuries (1591–1604, 1622–1773). Thus, the Greek translation must have been a useful companion for Greek students beginning their studies there, who had very little knowledge of Latin, the otherwise official language of education in the Collegio Greco.

MS.MSL.124 and MSL.126 together with the eighteenth-century codex MS.MSL.112[27] are copies of medical texts by Oribasios (*Medical Collections*) and John Zacharias Aktouarios (*On Urines* and *Medical Epitome*) made from manuscripts that were found in England. The first two were copied from Cambridge manuscripts, while the third is a direct copy from MS.MSL.52, most probably commissioned by Anthony Askew himself. The enduring interest in John Zacharias Aktouarios among early modern physicians can be explained by the production of the sixteenth-century Latin translations of his corpus, which became influential in Western Europe.

MS.4103 consists of a collection of *iatrosophia* combined with texts of an often superstitious nature on divination, dream interpretation, astrological opuscules, and texts on thunders (*brontologia*) and earthquakes (*seismologia*) written in vernacular Greek. Tina Lendari and Io Manolessou (Chapter Four) confirm in their detailed linguistic study of the codex the obvious 'Northern vocalism', thus associating the language of the codex with the Northern dialects of Modern Greek. Several other linguistic observations point to more similarities with the dialects of the regions of Epirus and Sterea Ellas. In terms of vocabulary, there are a significant number of loanwords from Italian/Romance and Turkish, and a small number of terms of Slavic, Albanian, or even Aromanian origin. Last, there is one codex, MS.413, which was copied around 1800.[28] It contains a collection of oracles, ascribed to Emperor Leo VI the Wise (r. 886–912) and Arsenios

26 Bouras-Vallianatos (2015: 279–83, 311–13, 324–6).
27 Bouras-Vallianatos (2015: 307–8).
28 Bouras-Vallianatos (2015: 319–21).

Markellos, patriarchal secretary in the second half of the sixteenth century. The codex is nicely illustrated by twenty-two drawings in ink and wash. A study of this codex could potentially illustrate some features of the sixteenth-century political milieu in the Ottoman Empire.

Bibliography

Bennett, D. 2017. *Medicine and Pharmacy in Byzantine Hospitals*. Abingdon: Routledge.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59: 275–326.

Bouras-Vallianatos, P. 2020. *Innovation in Byzantine Medicine: The Writings of John Zacharias Aktouarios (c.1275–c. 1330)*. Oxford: Oxford University Press.

Delatte, A. (ed.). 1930. 'Le lexique de botanique du Parisinus graecus 2419', in *Serta Leodiensia*. Liége and Paris: Vaillant-Carmanne and Champion, 59–101.

Elia, E. 2014. *Libri greci nella Biblioteca nazionale universitaria di Torino: i manoscritti di Andreas Darmarios*. Alessandria: Edizioni dell'Orso.

Heiberg, J. L. (ed.). 1921–4. *Paulus Aegineta*. 2 vols. Leipzig and Berlin: Teubner [C.M.G., IX.1–2].

Hunger, H. et al. (eds.). 1981–97. *Repertorium der griechischen Kopisten 800–1600*. 3 vols in 9 pts. Vienna: Verlag der Österreichischen Akademie der Wissenschaften [cited with volume no. followed by catalogue no., e.g. *RGK* II 120].

Jouanna, J. 2018. *Le Serment. Les Serments chrétiens. La Loi*. Paris: Les Belles Lettres.

Leith, D. 2017. 'The Hippocratic Oath in Roman Oxyrhynchus', in M.-H. Marganne and A. Ricciardetto (eds.), *En marge du Serment hippocratique. Contrats et serments dans le monde gréco-romain*. Liège: Presses Universitaires de Liège, 39–50.

Marganne, M.-H. 2001. 'Livres de médecine illustrés dans l'Egypte gréco-romaine', *Medicina nei Secoli* 13/1: 1–23.

Mondrain, B. 2010. 'Démétrios Angelos et la médecine: contribution nouvelle au dossier', in V. Boudon-Millot et al. (ed.), *Storia della tradizione e edizione dei medici greci, Atti del VI Colloquio Internazionale Paris 12–14 Aprile 2008*. Naples: D'Auria, 293–322.

Mondrain, B. 2012. 'La lecture et la copie de textes scientifiques à Byzance pendant l'époque Paléologue', in G. De Gregorio and M. Galante (eds.), *La produzione scritta tecnica e scientifica nel medioevo: libro e documento tra scuole e professioni*. Spoleto: Fondazione Centro italiano di studi sull'Alto Medioevo, 607–32.

Photos-Jones, E., Knapp, C. W., Venieri, D., Christidis, G. E., Elgy, C., Valsami-Jones, E., Gounaki, I. and Andriopoulou, N. C. 2018. 'Greco-Roman Mineral (litho)Therapeutics and their Relationship to their Microbiome: The Case of the Red Pigment *Miltos*', *Journal of Archaeological Science: Reports* 22: 179–92.

Serikoff, N. (ed.). 2013. '"Syriac" Plant Names in a Fifteenth Century Greek Glossary (From the Wellcome Library Books and Manuscripts)', in B. Zipser (ed.), *Medical Books in the Byzantine World*. Bologna: Eikasmos, 97–115.

Touwaide, A. 2016. 'Agents and Agencies? The Many Facets of Translation in Byzantine Medicine', in F. Wallis and R. Wisnovsky (eds.), *Medieval Textual Cultures*. Berlin: W. de Gruyter, 13–38.

Zipser, B. (ed.). 2009. *John the Physician's Therapeutics. A Medical Handbook in Vernacular Greek*. Leiden: Brill.

1 Greek manuscripts in the Library at Wellcome Collection

Owners and cataloguers

Vivian Nutton

The Wellcome collection of Greek manuscripts falls into two parts, one created in the eighteenth century, the other largely in the twentieth. They indicate different methods and priorities of collecting as well as the different purposes for which they were bought. Their presence today in the Library at Wellcome Collection owes a great deal also to a small number of individuals, few of whom are remembered today, but without their energy and persistence both parts of the collection would likely have been dispersed years ago.

Anthony Askew, MB, MD Cambridge, FRCP, FRS (1722–74), is a doctor famous today not for his medicine, but for the collection of Greek manuscripts that he amassed during his travels on the continent in the 1740s and later.[1] At his death in 1774, he owned more than 7,000 volumes, which filled his entire Queen Square house and took 19 days to sell at auction.[2] His library reputedly contained manuscripts of every Greek author, many obtained from monasteries in the Ottoman Empire. He was collecting at a time when it was possible for a wealthy traveller to acquire Greek manuscripts of all kinds in abundance, particularly from impoverished religious houses – later travellers like Robert Curzon garnered a poorer harvest from similar fields. The part of the collection that ended up in the Library at Wellcome Collection is exclusively medical, but also palaeographically unusual. It contains at least three manuscripts copied in England. MS.MSL.112, a copy of John Zacharias Aktouarios, may well have been written specially for Askew;[3] MS.MSL.124, also a John Zacharias Aktouarios, was copied from MS 76/43 in Caius College, Cambridge;[4] and the third, MS.MSL.126, is a partial manuscript of Oribasios copied in Cambridge by a Fellow of St John's College, Robert Wadeson, MD, from a manuscript in his college library, i.e. MS A.6.[5]

1 Munk (1878: 185). For his library, see Fletcher (1902: 219–21).
2 *Bibliotheca Askeviana* (1785).
3 Bouras-Vallianatos (2015: 307–8).
4 Bouras-Vallianatos (2015: 311–13).
5 Bouras-Vallianatos (2015: 313).

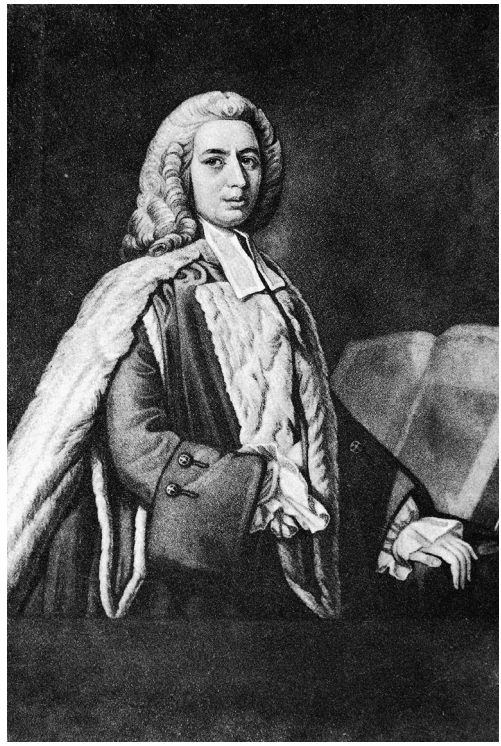

Figure 1.1 Portrait of Anthony Askew, from the photogravure after the picture in Emanuel College, Cambridge.

Most of Askew's books and manuscripts are today in the British Library, bought by, among others, George III (r. 1760–1820), but many famous collectors joined in the bidding at the first sale and at that of the manuscripts in 1785. One purchaser at the sale of Askew's manuscripts, one of the heroes of this chapter, was James Sims, an Irishman who had moved to London around 1773, and soon established a lucrative practice under the patronage of a celebrated London physician, John Coakley Lettsom (1744–1815). Lettsom is one of the great names in English Georgian medicine, a distinguished physician and the founder of one of the earliest dispensaries, the Aldersgate Dispensary. Lettsom was the moving spirit behind the foundation of The Medical Society of London in 1773, the first successful attempt to bring together respectable practitioners of all kinds who would otherwise have congregated in their respective colleges. His aim was to further medical co-operation, and to enhance medical scholarship by

learned discussion.[6] James Sims (1741–1820), who obtained a post at the Aldersgate Dispensary soon after coming to London, joined the Medical Society in 1783. He was a very clubbable man, and was a leading member of many societies, including the Philanthropic Society and the Humane Society. He quickly made his mark in the Society, becoming its President in 1786 and remaining in office for 22 years. Such a lengthy tenure was not unusual in learned societies of the day: Sir Joseph Banks (1743–1820) held the presidency of the Royal Society for 42 years, Sir Henry Halford (1766–1844) that of the College of Physicians for 23 years.

Sim's period in office was not always to the satisfaction of the entire membership, for, particularly in his later years, many of the younger members split off to found other similar societies, a few of which are still with us today, most notably what eventually became The Royal Society of Medicine.[7] One cause of contention was the Society's library. Sims was a great collector, and his private medical library was enormous. In 1802, he persuaded the Society to accept a very unusual arrangement; he made over to the Society all his books and manuscripts in exchange for a payment of £500, an annuity of £60 to himself and his wife, and of £90 a year to the survivor on the death of a spouse.[8] It was an arrangement that might have seemed a bargain at first to the Society, but became increasingly irksome as Sims grew older and continued in office as President. The library was a remarkable resource – even the Greek manuscripts and classical editions, like Rabelais' edition of the Hippocratic *Aphorisms*, were still viewed at the time as having practical value. It provided Society members with access to a remarkable collection of information, arguably superior to the libraries of the London colleges because of its broader scope. It housed a wonderful collection of printed Hippocratica, but somewhat less of Galen, reflecting the validity of Hippocrates well into the nineteenth century.[9] It also included a remarkable number of European university theses from departed universities like Helmstedt and Altdorf. Many of them had been discarded as duplicates in 1788, from the British Library, where most of those that remained were destroyed in the last war.

The library was one of the reasons for the success of the Medical Society, despite competition from such organisations as The Royal Society of Medicine. In 1873 it moved to its present premises in Chandos Street, just behind Cavendish Square, one of London's finest surviving domestic buildings of the early nineteenth century.

6 For the history of the Society, see Hunting (2003). See also Munk (1878: 287); and Lawrence and Macdonald (2003).
7 Munk (1878: 317–18); Hunting (2003: 138–42).
8 Hunting (2003: 24).
9 Nutton (1986–7).

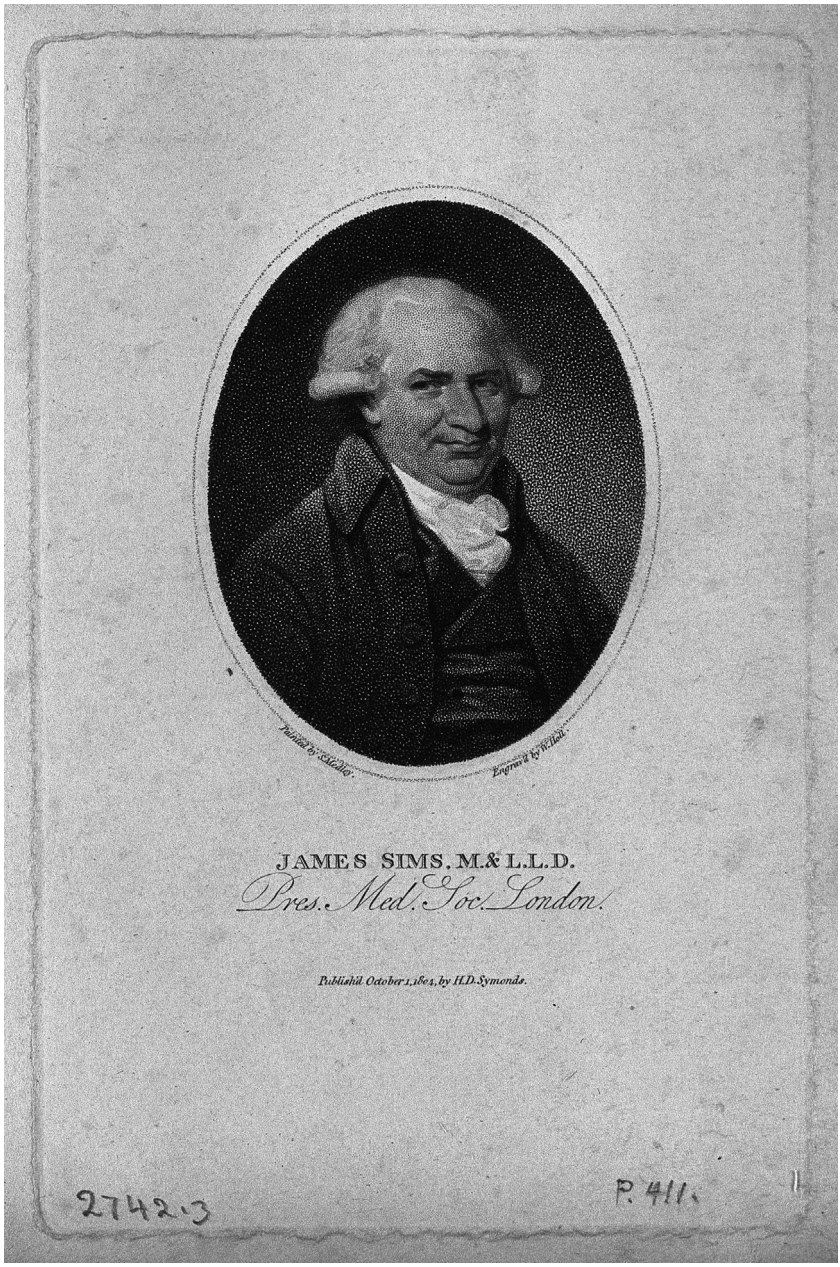

Figure 1.2 James Sims. Stipple engraving by W. Holl, 1804, after S. Medley.

Seven years later, in 1880, there arrived in London an ambitious young American pharmacist, Henry Solomon Wellcome (1853–1936).[10] He had come to join an old friend, Silas Burroughs, who had begun to establish a successful drug business in London. On 30 September 1880, the two concluded an agreement to set up Burroughs Wellcome and Co, which long remained its name in the United States even after the English business had changed its name, confusingly, to The Wellcome Foundation Ltd. Although the business prospered, notably through the introduction of drugs in tablet form, the original tabloids, the personal relationship between the proprietors steadily worsened, and it was only Burroughs' early death in 1895 that prevented the dissolution of the partnership and the break-up of the firm. As it was, Wellcome was now free to run things in his own way. He had two passions, beyond that of money-making: scientific research and the history of medicine. He set up two research laboratories in Beckenham, and there was eventually also a tropical laboratory in Khartoum, all staffed by future eminent scientists, including the Nobel Prize-winner Sir Henry Dale (1875–1968), and avowedly intended to carry out research independent of the company, although in practice the two were closely connected.[11]

Wellcome had begun buying historical objects and books in the 1890s, but it was not until 1896 that he employed anyone to collect and organise his material, probably with a view to an exhibition, and it was perhaps not for another ten years that he began wholesale collecting for his Museum at a rate that increased considerably after the First World War. He bought almost anything to do with the history of medicine, and book dealers were quick to offload their unsellable material to him as job lots. John Symons' history of the Wellcome Library tells many stories of the contortions Wellcome went through to disguise his identity – almost always without success.[12]

But it was the Museum objects that were his main interest – the collection was, at its largest, four times the size of that of the Louvre – and the books and manuscripts were secondary. That is, of course, not to deny that he established what was at the time the largest collection in the world of older medical books, and one not surpassed until the 1980s by the National Library of Medicine as a single medico-historical collection. But, compared with his Latin manuscripts, Wellcome's Greek purchases are few and relatively unimportant; there are only five compared with eleven from the Medical Society, and no Greek manuscripts have been added since the acquisition of the latter.[13] There are also a few papyri fragments, including the illuminated Johnson Papyrus and the oldest copy of the Hippocratic *Oath*, MS.5733–5. There is a simple reason for this: the great dispersal of monastic collections had long ended, most major Greek manuscripts were already in official

10 Rhodes James (1994).
11 Tansey (1989).
12 Symons (1993).
13 Bouras-Vallianatos (2015).

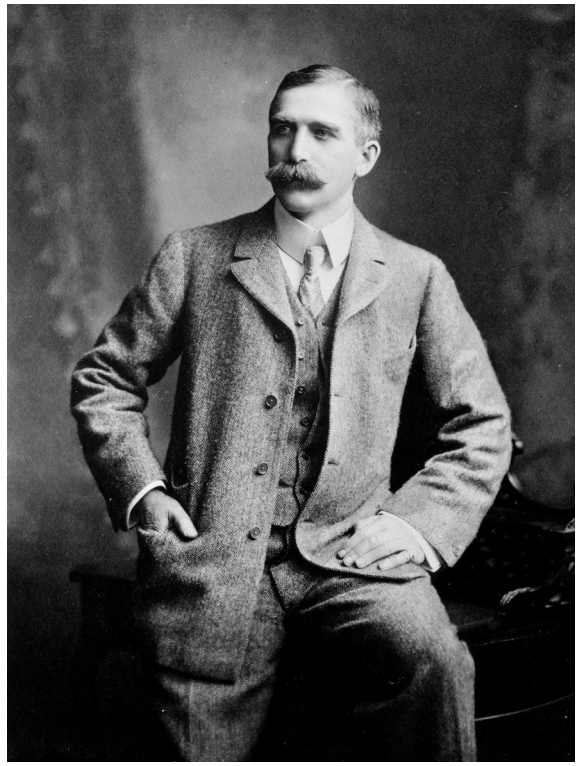

Figure 1.3 Portrait of Sir Henry Wellcome, 1902.

collections in Italy, Paris, and Berlin, and few came up on the auction market. Where Wellcome did buy large parts of an individual's library, like that of William Morris in 1898, it contained books rather than manuscripts.

Wellcome's vision, to display the history of medicine as part of the universal culture of mankind and to encourage members of the firm to browse among books and objects to gain inspiration for their new discoveries, was wildly optimistic.[14] His scientists were little interested, and the material was housed miles from the labs in Beckenham or the factory at Dartford. Besides, the amount of material flooding in quickly overwhelmed the curatorial staff of the Museum and Library. Save for a few exhibitions, and some honoured visitors, only a small fraction of the books and manuscripts was put on display during Wellcome's lifetime. When he died in 1936, he

14 Russell (1986); Skinner (1986); Larson (2009).

left the responsibility for his research staff and his collection to his Trustees, but the books and personnel responsible for them still remained within the drug company itself, a situation that still obtained in part when I joined in 1977. This was typical of the man and a company where exactly who owned what was far from clear, and where the boundaries between Wellcome's private enthusiasms and his company were fluid. War only added to the problems. The Wellcome Building on Euston Road, intended for the Museum, had to be adapted suddenly to serve as the headquarters of the company, after it had been forced to move after being bombed out in 1941. (The Trust was located elsewhere and was a tiny organisation.) More seriously, the drug company itself was in grave financial difficulty, and did not begin to be profitable until the mid-1960s. The Trustees, who owned the company, had as a first charge also to pay for the Museum and Library, whose demise was averted only by massive Museum sales.[15] It required enormous efforts from the Museum Director, E. Ashworth Underwood (1899–1964), and his staff to reopen part of the Museum in 1946 and the Library itself in 1949, albeit in only a small portion of the lavish building that had been planned as part of a scheme that would have covered the whole block between Gordon Street and Gower Street.[16] Space was at a premium, and continued to be so even after the transfer of the Historical Museum on the second floor and the Tropical Museum in the basement.

The Trust was not the only organisation in difficulties after the war. The Medical Society of London was also faced with the problem about what to do with the older portions of its library, no longer relevant to the interests of most of its members, and occupying space in a most expensive area of London. Its transfer to the Wellcome Library was due to two men, almost forgotten today, but to whom an enormous debt is owed, Noel Poynter and Peter Williams. Noel Poynter (1908–79), who joined the library staff in 1930, became the Librarian in 1954, and then the first Director of the Wellcome Institute from 1964 until 1973.[17] It was he who had the idea of turning the Library into a truly international research centre, pursuing this vision vigorously and with considerable success. He was an expert networker, particularly among the higher reaches of the London medical scene, and it was he who in 1967 negotiated the deposit of The Medical Society of London material, some 200 manuscripts and 10,000 printed books, in the Library on a 20-year loan.[18] He also encouraged, in 1970, The Medical Society of London to sell off duplicates and material that he did not want to go to Toronto to form part of the Hannah Institute for the History of Medicine. According to oral tradition, the Toronto buyer, Jason Hannah, was somewhat miffed to find later that his hoped-for purchase, although extensive,

15 Hall and Bembridge (1986: 22–65); Russell (1986).
16 Symons (1993: 37) shows a projected design for the whole block.
17 Keele (1979); Hall and Bembridge (1986: 131–39).
18 Hunting (2003: 296).

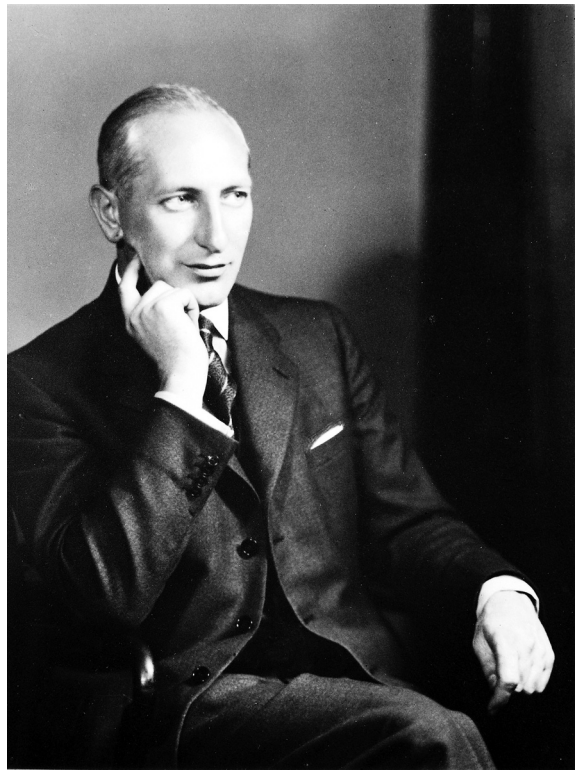

Figure 1.4 Edgar Ashworth Underwood, seated, right hand on cheek.

was not as great as he had expected.[19] But while The Medical Society of London loan solved the Society's problems of space, it was a temporary solution – it was after all a loan – and while the Hannah sale allowed Chandos House to be appropriately renovated, the Society's finances continued to deteriorate. The Wellcome Trust was lukewarm at the idea of extending the loan, preferring to purchase the volumes outright. There followed long and at times fraught negotiations on both sides before the Trust, helped by a substantial contribution from the National Heritage Memorial Fund, completed the sale in 1984 at a price of £800,000.[20]

19 It now forms part of the rare book collection in the Thomas Fisher Rare Book Library of the University of Toronto. Poynter played no direct part in the negotiations, but he knew all those involved.

20 Hunting (2003: 300–1).

Figure 1.5 Portrait of F. N. L. Poynter.

But neither deposit nor purchase, nor indeed the Wellcome Institute itself, would have been possible without the support and initiative of Peter Williams (1925–2014), Secretary (later Director) of the Trust from 1965 to 1991 and from 1981–3 also Director of the Institute.[21] He and Poynter did not always see eye to eye, and it was probably a good thing that the Euston Road provided a nigh unbridgeable gap between the Wellcome Building and the Trust's offices in Park Square West. But without Williams' backing, it is clear that the Library and Institute, and indeed medical history as a subject, would not have flourished as it did. Williams, whose wife wrote a PhD thesis on Galvani, came to dominate the Trustees, and his opinions of what medical historians should do carried weight, even if not always to the satisfaction of younger historians.[22] But he was justly proud of what he achieved

21 Significantly, no obituary appeared in a medical history journal. Obituaries: Cookson (2014); Gordon and Tansey (2014); Watts (2014).
22 Williams (2000).

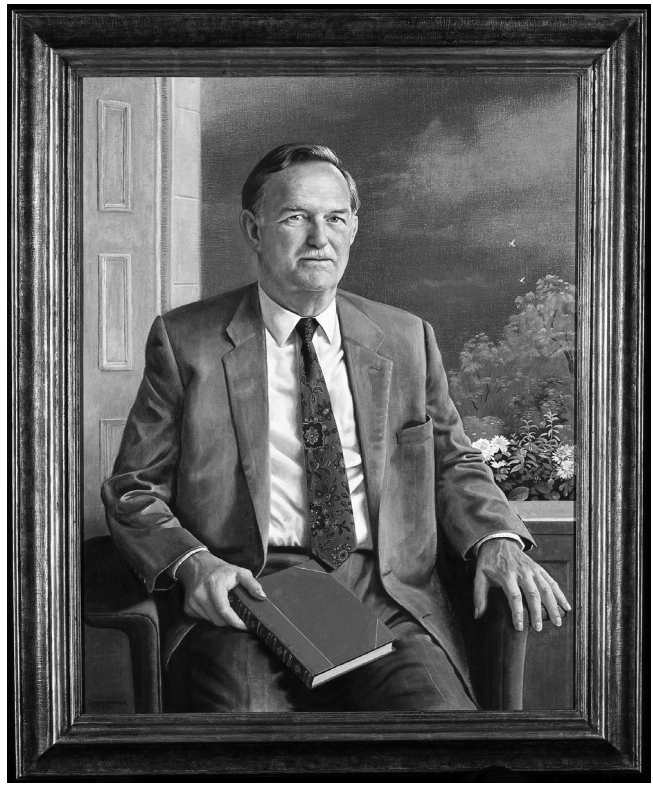

Figure 1.6 Dr Peter Williams (1925–2014), first Director of the Wellcome Trust in his office on the first floor of 1 Park Square West, London, looking on to Regent's Park, and holding a copy of *Physic and Philanthropy: A History of the Wellcome Trust 1936–1986* by A. R. Hall and B. A. Bembridge (Cambridge, 1986).

for the history of medicine, as the Trust's historians acknowledge, and he was generous in his backing for new initiatives.[23] The relationship between the Trust and the Library has never been entirely harmonious, but one needs only to look around to see the importance of the influence of a Director and Trustees with an interest in medical history.

Since 1984, there have been no new acquisitions of Greek manuscripts. But one did get away: in 2005 the British Library decided not to bid for an interesting Phillipps manuscript of Galen's *Therapeutics to Glaucon* and

23 Hall and Bembridge (1986: 121–49, 199–202).

other texts that had been on loan there for some time, and suggested that the Wellcome should acquire it. It was considered by the Library Committee, who decided not to bid for it. However, the Library and I did make representations to Christie's that, if possible, this should not be sold to go into a bank vault, since I knew of several scholars working on the texts it contained. Our pleas may have had an effect – it may be no coincidence that Christie's head of manuscripts was the wife of the Secretary of the Wellcome Foundation Ltd – and the manuscript is now easily accessible at Yale (Beinecke Rare Book & Manuscript Library) as MS.1121.

Access to manuscripts also depends on the quality of their catalogues. The catalogue of The Medical Society of London manuscripts was published in 1932 by Warren R. Dawson (1888–1968), an antiquarian greatly interested in Egyptology.[24] He was an insurance specialist at Lloyd's, where his wealth allowed him the leisure to pursue a range of antiquarian interests, including acting as a sort of jobbing cataloguer of manuscripts, including those of Lloyd's itself, The Medical Society of London, The Linnean Society and Imperial College. His expertise, it must be said, was in more modern manuscripts and archives, and at times the complexity of many of The Medical Society of London Greek manuscripts defeated him.

His Wellcome counterpart, S. A. J. Moorat, was even longer-lived, working for 50 years in the Library as a cataloguer, before retiring for the second time at the age of 81 in 1973. Moorat, an Oxford graduate, took on the task of producing the catalogue of Western manuscripts as a project after his first retirement in 1946. To complete the first volume of the catalogue by 1962 was a remarkable achievement, even if Moorat had himself been largely responsible for accessioning many of the manuscripts in the hectic period of acquisition in the decade before Wellcome's death. But, like Dawson, Moorat was not a specialist in Greek manuscripts (or for that matter in Medieval Latin), and, although he was helped by some outside scholars, the catalogue was very much an individual effort. Unsurprisingly, mistakes are common, and over the years more than one expert, including Nigel Wilson, was asked to look at the Greek collection and contribute corrections to the catalogue. But like the predecessors of Agamemnon praised by the Roman poet Horace, *omnes illacrimabiles urgentur ignotique*, their work passes unknown and unmourned, for their comments (as well as many more on the Latin manuscripts) were recorded on cards kept in a white box in the office of the manuscripts curator. But librarians move on and, particularly in the Trust, buildings and offices are redeveloped with remarkable frequency. I managed to keep track of the several moves of the precious box until a dozen years ago, since when it seems to have disappeared. And what, I wonder, has happened to the collection of microfilms of Greek

24 James (1969).

manuscripts of Hippocrates and Galen assembled by Iain Lonie and others, and last heard of in a green filing cabinet some 17 years ago?[25]

But it would be churlish to end on this sour note, and without paying tribute to a succession of librarians who have helped to publicise the collection and who have assisted numerous readers with their enquiries.[26] Indeed, it could well be argued that the non-implementation of these earlier attempts to correct Moorat and Dawson has allowed us to have a new catalogue of the collections, prepared to the highest level of technical expertise. We now know far more today about Wellcome manuscripts than could ever have been hoped for, and certainly far more than was known when I prepared a preliminary survey of the ancient material in The Medical Society of London collection in 1986–7. But that would not have been possible without the contributions of Antony Askew, James Sims, Henry Wellcome, Noel Poynter, and Peter Williams, who bought and preserved the manuscripts that we can use today.

Bibliography

1785. *Bibliotheca Askeviana manu scripta, sive catalogus librorum manuscriptorum Antonii Askew*. London: Leigh & Sotheby.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59: 275–326.

Cookson, C. 2014. 'Peter Williams, Administrator, 1925–2014', *The Financial Times*, at www.ft.com/content/214ef158-17fd-11e4-a82d-00144feabdc0 (accessed, 23 May 2019).

Fletcher, W. Y. 1902. *English Book Collectors*. London: Kegan Paul, Trench, Trübner & Co.

Gordon, D. and Tansey, T. 2014. 'Peter Williams Obituary', *The Guardian*, at www.theguardian.com/science/2014/aug/15/peter-williams (accessed, 23 May 2019).

Hall, A. R. and Bembridge, B. A. 1986. *Physic and Philanthropy: A History of the Wellcome Trust 1936–1986* (with a foreword by Sir David Steel). Cambridge: Cambridge University Press.

Hunting, P. 2003. *The Medical Society of London, 1773–2003*. London: The Medical Society of London.

James, T. G. H. 1969. 'W. R. Dawson', *The Journal of Egyptian Archaeology* 55: 211–14.

Keele, K. D. 1979. 'F. N. L. Poynter', *Medical History* 23: 372–3.

Larson, F. 2009. *An Infinity of Things: How Sir Henry Wellcome Collected the World*. Oxford: Oxford University Press.

25 Lest I seem to be picking on my former colleagues, institutional amnesia is common among libraries. The National Library of Medicine had to be alerted only two or three years ago to their collection of microfilms of the Latin Galen assembled by Richard Durling in the 1950s, which were very useful to consult when the Vatican Library was closed, but which had been forgotten once those who had known Durling themselves retired.

26 I mention, *honoris causa*, from among past librarians, Eric Freeman, Robin Price, John Symons, Richard Palmer, and Richard Aspin.

Lawrence, C. and Macdonald, F. A. (eds.). 2003. *Sambrook Court: The Letters of J.C. Lettsom at the Medical Society of London*. London: The Wellcome Trust Centre for the History of Medicine at University College London.

Munk, W. 1878. *The Roll of the Royal College of Physicians of London: Comprising Biographical Sketches of all the Eminent Physicians Whose Names are Recorded in the Annals, Vol. II, 1701 to 1800* [2nd edition]. London: Royal College of Physicians.

Nutton, V. 1986–7. 'The Legacy of Hippocrates: Greek Medicine in the Library of the Medical Society of London', *Transactions of the Medical Society of London* 103: 21–30.

Rhodes James, R. 1994. *Henry Wellcome*. London: Hodder & Stoughton.

Russell, G. 1986. 'The Wellcome Historical Medical Museum's Dispersal of Non-Medical Material, 1936–1983', *Museums Journal* 86(Supplement): 3–36.

Skinner, G. 1986. 'Sir Henry Wellcome's Museum for the Science of History', *Medical History* 30: 383–418.

Symons, J. 1993. *Wellcome Institute for the History of Medicine: A Short History*. London: The Wellcome Trust.

Tansey, E. M. 1989. 'The Wellcome Physiological Research Laboratories 1894–1904: The Home Office, Pharmaceutical Firms, and Animal Experiments', *Medical History* 33: 1–41.

Watts, G. 2014. 'Peter Orchard Williams', *The Lancet* 384: 2104.

Williams, B. I. 2000. *The Matter of Motion and Galvani's Frogs*. Bletchingdon: Rana.

2 The clinical method of the anonymous of Paris*

Orly Lewis

1 Introduction

At the end of MS.MSL.52B held at the Library at Wellcome Collection we find an anonymous treatise concerning acute and chronic diseases, dated to the first century CE.[1] The treatise has survived also in two manuscripts in Paris and one in Vienna.[2] The author is commonly known as Anonymus Parisinus (henceforth AP or the Anonymous). He earned this appellation from his unknown identity and from Paris being the place to which the first manuscript, found originally on Mt. Athos, was brought and identified.[3] Two of the manuscripts offer titles. The title in the London manuscript reads: διαγνωστικὴ διάλεκτος τῶν μεγάλων ποιητῶν[4] ἰατρῶν· περὶ τῶν ὀξέων νοσημάτων, καὶ ὀξέων τὲ καὶ χρονίων ("A diagnostic discussion of the great physician authors – on the acute diseases – both acute and chronic"). The title in Parisinus suppl. gr. 636 is shorter: διάγνωσις περὶ τῶν ἕξεων (sic) καὶ χρονίων νοσημάτων ("Diagnosis concerning acute and chronic diseases"). As Ivan Garofalo notes, the treatise discusses more than diagnostics.[5] It is divided into fifty-one sections, each setting out the causes, signs and treatments of a particular disease.

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1 Ff. 366v–403v. On this manuscript, see Bouras-Vallianatos (2015: 286–92). For the dating, see Garofalo (1997: xi); van der Eijk (1999a: 296–300, 326–9).

2 Parisinus suppl. gr. 636, Parisinus gr. 2324, Vindobonensis med. gr. 37. For an overview and comparison between the manuscripts, see Garofalo (1992) and (Garofalo, 1997: xiv–xxii).

3 On the author's identity, see Fuchs (1903), who attributes it to Themison, the pupil of Asclepiades; Wellmann (1905) argues for the Pneumatist Herodotus, which was accepted by Liddell and Scott in their Greek-English dictionary; Garofalo (1997: xi–xiii) and van der Eijk (1999a: 300–1, 325–9) both reject these attributions and argue that the author remains anonymous.

4 Garofalo suggests that this should perhaps read παλαιῶν ("ancient") – Garofalo (1997: 2).

5 Ibid.

First come sixteen acute diseases, followed by thirty-five chronic diseases. It is the author himself who makes this distinction: at the end of chapter sixteen he notes that he has reached the end (τέλος) of the study (πραγματεία) of the acute diseases and is moving on (μετιέναι) to the collection (συναγωγή) of the chronic diseases.[6] None of the manuscripts contain all of the sections – Parisinus suppl. gr. 636 is the most complete, while the Wellcome manuscript, which spans thirty-seven folios, includes twenty-nine of the fifty-one sections.[7]

The treatise was first discovered in 1840. In 1894 Robert Fuchs published the text based on the Paris manuscripts, but it was only in 1997 that Garofalo published a complete edition, based on all four manuscripts, together with a translation.[8] Scholars have engaged with this treatise mostly on account of it being an important source for the ideas of earlier physicians. Others have focused on the question of the author's identity or relation to certain medical "schools".[9] Van der Eijk's 1999 extensive article in a volume on medical doxography and historiography in antiquity goes beyond the treatise's doxographic aspects; however, the scope and context restricted the ability to explore the treatise as a whole. Although over twenty years have passed since these publications, there is still no study of the methods and professional considerations of the author, regardless of his identity or possible affiliation with other groups or "schools".[10] This is particularly unfortunate since AP is one of the few medical works which have survived from the period between the Hippocratic works (mostly fifth and fourth centuries BCE) and Galen (second century CE). The work is thus a rare direct testimony to a medical treatise from this period and the professional concerns and interests of physicians of the time; the author's ideas and methods are thus worthy of consideration on their own account, regardless of his identity, "affiliation" and sources.

This chapter is intended as a step towards such a study. It brings to light some of the main features and threads in the author's medical method and the underlying ideas they reflect. I use "method" here in the general sense of an approach or a set of procedures directing the Anonymous' clinical work with patients. My underlying assumption is that he considered his treatise comprehensive and sufficient for guiding a practising physician. It is possible that the treatise is mostly

6 Anonymus Parisinus, *On Acute and Chronic Diseases*, 16, ed. Garofalo (1997) 108.22–3. References to the Anonymus Parisinus are by chapter and page numbers (and when necessary line numbers).

7 See the table in Garofalo (1997: xviii–xix).

8 Fuchs (1894). Cf. Fuchs (1895) and Fuchs (1903). Garofalo (1997) – the English translation in that edition is Brian Fuchs' (not to be confused with the earlier editor, Robert Fuchs) translation of Garofalo's Italian translation of the text. See van der Eijk (1999a: 295–302) for a detailed overview of the editorial history of this text.

9 Fuchs (1901); Fuchs (1903); Wellmann (1901); Wellmann (1905); Wellmann (1913).

10 While focusing on the doxographical contribution of AP, van der Eijk (1999a) also attempts to identify the author's own voice and mark in the doxographical parts. For the ambiguous meaning of the concept of medical "school" (αἵρεσις) in antiquity, see Von Staden (1982) and Leith (2016) as well as Glucker (1978: 174–92) for the broader context.

Figure 2.1 Londiniensis Wellcomensis MS.MSL.52, f. 366v.
Photograph by Petros Bouras-Vallianatos.

an edited collection and compilation of information from other sources, with only very few independent or original views. But even if this is the case, I believe that his selection of content and the "clinical narrative" he relates represent his

own perception of how to practise medicine and what is required to do so properly. The author himself does not claim to be providing a systematic universal clinical method, nor does he use the Greek term μέθοδος, which Galen opposes to proceeding "by chance or spontaneously" (κατὰ τύχην καὶ αὐτομάτως).[11] Nevertheless, an analysis of the text reveals, as we shall see, some underlying considerations and traits which guide the Anonymous' clinical work and approach and which allow him and physicians using his treatise to pursue their practice without relying on chance or luck. It is these considerations and traits which I call his "method". In accordance with the author's form of presentation, I discuss first his engagement with the causes of diseases, then signs and diagnosis and finally treatment.

2 Causes of diseases

When discussing the causes (αἰτία) of the different diseases, AP usually lists the views of four physicians from the fifth to third centuries BCE: Hippocrates, Diocles of Carystus, Praxagoras of Cos and Erasistratus of Ceos.[12] At times he lists the opinions of all four concerning the cause of the particular disease, sometimes of only some of the four, other times he groups them together under the label of "the ancients" (οἱ ἀρχαῖοι, οἱ παλαιοί) and once simply as "the four" (κατὰ τοὺς τέσσαρας).[13] However, these doxographies are only part of the picture – the author's voice is often heard. Occasionally he uses the first person: "we say" (φαμεν) or notes that whereas "some think" one thing, "we think…" (μέν τινες οἴονται … ὡς δὲ ἡμεῖς).[14] In many cases he describes the causes of the given disease with no reference to earlier authors (particularly in the case of chronic diseases); other times he notes an additional cause or explanation to the causes he reports for "the ancients".[15] Based on these parts in which the author expresses his own

11 Galen, *Method of Medicine*, 1.4, ed. Kühn (1825) X.31.10–12, and see van der Eijk (2008: 287–8).

12 In thirty-eight of the fifty-one chapters – see the informative list in van der Eijk (1999a: 304–7). Twelve of the thirteen cases without any reference to ancient authorities concern chronic diseases; the one acute disease is satyriasis.

13 See van der Eijk (1999a: 303–4) and van der Eijk (1999b: 144–6). There is a single mention of a different ancient authority: the philosopher Democritus regarding the cause of elephantiasis (Anonymus Parisinus, *On Acute and Chronic Diseases*, 51, ed. Garofalo (1997) 258.5).

14 Anonymus Parisinus, *On Acute and Chronic Diseases*, 11, 31, ed. Garofalo (1997) 82.1, 166.15.

15 See the tables in van der Eijk (1999a: 304–7). The anonymous reviewer of my chapter raised the important question of whether there was possibly a connection between the severity of the diseases and the reference to the authority of the ancients. I believe such a connection is possible in so far that there was, for these diseases, a stronger tradition of discourse, particularly as regards their causes. Nevertheless, the severity was probably only part of the motivation for the livelier debate; presumably, the obscurity of the causes of these diseases as well as their relation to broader ancient debates (e.g. concerning mental faculties or the bodily location of disease) also contributed much to the interest in them.

views, we can make several observations regarding his ideas concerning disease aetiology.

2.1 A range of causes

Overall the Anonymous refers (without mention of a source) to the full range of causes found in other Greco-Roman medical sources: qualitative changes related to heat, chill, wetness and dryness in the entire body, or in certain parts or substances; blockage or hindrance to the passage of substances such as blood or air; accumulation of blood, air or humours in locations they should not naturally be; physical trauma. In vertigo, for example, the liquids in the head and the pneuma are blocked (ἐνανείλησις);[16] in colic it is "either inflammation of the colon or stoppage of the thick pneumata in it";[17] spasm can arise from dryness of the nerves which are thus "contracted like leather straps" and on account of "lack of tension of the pneuma" (ἀτονία πνεύματος).[18]

This last reference to the tension of the pneuma and to the lack thereof (ἀτονία) as a cause of disease are interesting. Most medical authors generally conceive pneuma solely as a substance which moves through channels and parts. The free flow of this pneuma ensured healthy motor, sensory, and sometimes, intellectual faculties. A disruption in the flow of this pneuma would cause dysfunction and disease. The theory of the physicians of the Pneumatist school (ἡ πνευματικὴ αἵρεσις) adopts this concept of pneuma, but their theory of disease uniquely incorporated, and indeed centred round, their conception of another pneuma, which permeates and is present in the solid parts. This pneuma is active inside the parts of the body at their most basic compositional level, and some sources refer to it as the "connate pneuma" (τὸ σύμφυτον πνεῦμα).[19] According to the Pneumatist theory, changes in the body due to external and internal causes bring about a qualitative imbalance or a lack of tension of this pneuma, which in turn disrupt the pneuma's activity; this causes various dysfunctions, depending on the part affected.[20]

The chapter on spasm cited above is not the only place in which AP refers to the tension of the pneuma. In the case of dysenteric flux he refers to the lack of tension of the innate pneuma (ἀτονία ἐμφύτου πνεύματος).[21] In the case of syncope, the pneuma loses its natural tension on account of

16 Anonymus Parisinus, *On Acute and Chronic Diseases*, 17, ed. Garofalo (1997) 110.6–7.

17 Anonymus Parisinus, *On Acute and Chronic Diseases*, 15, ed. Garofalo (1997) 102.5–6. Translations from AP are by Fuchs in Garofalo (1997) with slight modifications. Where an implied word needs to be made explicit for reasons of clarity, it is supplied within parentheses.

18 Anonymus Parisinus, *On Acute and Chronic Diseases*, 7, ed. Garofalo (1997) 50.11–14.

19 Ps.-Galen *Introduction, or the Physician*, 9, ed. Petit (2009) 21.20–1 = ed. Kühn (1827) XIV.698, and see Coughlin and Lewis (forthcoming) for discussion.

20 See Coughlin and Lewis (forthcoming).

21 Anonymus Parisinus, *On Acute and Chronic Diseases*, 43, ed. Garofalo (1997) 218.3–4.

inflammation (ὑπὸ φλεγμονῆς ἐκτονιζομένου τοῦ πνεύματος).[22] Importantly, in the treatment of this condition AP refers to the strengthening (ῥώννυται) of the pneuma as a defined therapeutic aim.[23] This further echoes the Pneumatist theory, which considered pneuma an explicit object of medical care and its restoration to its natural state a therapeutic aim. The passages in AP are our only direct evidence for the practical clinical consideration of the quality of the pneuma (rather than its freedom of motion in vessels or nerves) with regard to disease aetiology and treatment.

2.2 Causal relations

The Anonymous is aware and sensitive to different stages of disease causation and pathological processes. He describes a chain of effects and processes which occur inside or on the surface of the body. Catarrh, for example, is the result of strong chilling in the head which leads to an increase in the liquid inside the head, which then flows into the nostrils or channels.[24] Inflammation of the kidneys can occur due to various causes, among these are cases in which morbid matter flows to the kidneys from all over the body, causing the kidneys to fill and distend and this causes the inflammation. He opposes such cases to those arising from "some external cause" (ἔξωθέν τις αἰτία).[25] He offers no example for such an external cause, but it is clear that he is distinguishing between morbid processes arising from internal changes and those arising from a change or event affecting the body from without. An example for such an external cause in a different context is a bite from a raging dog (κύων λυσσῶν). Such a bite can cause the disease called *hydrophobos* – a fear of water so fierce that it causes tremors, a frequent pulse, disrupted breathing and speech, howling and confused and frightened behaviour.[26] Through the bite the dog "poisons" (ἐξιών) the humours in the body. In some cases humours which cause the affection can "arise inside the body" (ἐντραφέντων τῷ σώματι) without the external stimulant.[27] The author explains in detail the cause-and-effect process generated by these noxious

22 Anonymus Parisinus, *On Acute and Chronic Diseases*, 10, ed. Garofalo (1997) 72.7–8; his use of the verb ἐκτονίζομαι is a *hapax* and one wonders whether the Anonymous coined it or adopted it from another (now lost) source. The latter explanation seems to me more likely; this could imply that (at least some) of the aetiologies he adds to those of the ancient authorities derive from later authorities, which he does not name for some reason (perhaps it was clear to his contemporary readers?). Either way, I assume that the passages in which he "concludes" the cause from the ancients' writings (see above p. 28) are his own original contribution.

23 Anonymus Parisinus, *On Acute and Chronic Diseases*, 10, ed. Garofalo (1997) 72.7–9, 80.11–13. The treatment of pneuma in this sense appears to be part of a Pneumatist method – see Coughlin and Lewis (forthcoming).

24 Anonymus Parisinus, *On Acute and Chronic Diseases*, 28, ed. Garofalo (1997) 154–6.

25 Anonymus Parisinus, *On Acute and Chronic Diseases*, 37, ed. Garofalo (1997) 192.

26 Anonymus Parisinus, *On Acute and Chronic Diseases*, 12, ed. Garofalo (1997) 84–6.

27 Anonymus Parisinus, *On Acute and Chronic Diseases*, 12, ed. Garofalo (1997) 84.14–17.

humours (regardless of their origin): the humours dry the body, and with it the pneuma in the oesophagus and in the entire body is dried. The dryness means that the oesophagus (στόμαχος)[28] and other appetitive organs (τὰ ὀρεκτικὰ ὄργανα) are either paralysed or move with much pain. The dryness in these organs, claims the author, also explains the convulsions and the aversion to the sound of water.[29] The author's explanation demonstrates his attempt to connect between the signs (convulsion, aversion to water, irregularities in speech and swallowing, which are connected to the throat) and the causes (dryness and effects on the oesophagus). In the final sentence of the passage he notes that motion depends on wetness (and hence dryness harms the mobility of the parts). In this remark he reveals an interest in the relation between pathological processes and physiological theory and in showing that the causes are not random. Throughout the treatise, theoretical remarks are mostly restricted to the aetiological sections[30] and, as in this case, they are brief, general, and do not seem to strive for completeness.[31]

2.3 Technical causal terminology

On a handful of occasions AP uses technical causal terminology known from other medical and philosophical sources. He mentions that haemorrhage of the bladder has "many antecedent (προκαταρκτικαί) causes" and he distinguishes between antecedent and cohesive (συνεκτικά) causes in cases of coughing up blood (haemoptysis).[32] Lifting a weight, jumping, straining one's voice or an abundance of humours are possible antecedent causes which can cause, in turn, the cohesive causes of the disease such as an unnatural "opening" (ἀναστόμωσις), a rupture or corrosion (διάβρωσις) in the mouth, stomach, trachea, lung or other parts of the head or thorax.[33] Antecedent causes are usually external causes which bring about a change or process inside the body; the cohesive causes are those which actually bring about the disease (coughing blood in this case), without them there would be no disease. These causal terms originated in Stoic thought and their explanations of the cosmos and natural phenomena.

28 στόμαχος could also refer here to the cardia, the upper/cranial opening of the stomach; cf. Skoda (1988: 155).

29 Anonymus Parisinus, *On Acute and Chronic Diseases*, 12, ed. Garofalo (1997) 84.17–25.

30 Other examples include, for instance: phrenitis (the explanations of the roles of different parts according to the ancients – Anonymus Parisinus, *On Acute and Chronic Diseases*, 1, ed. Garofalo (1997) 2; satyriasis (the relation between spasm and voluntary motion and parts partaking in voluntary motion – ibid., 16, ed. Garofalo (1997) 106.19–20).

31 In the cited case of *hydrophobia* it is not clear, for example, whether the author is thinking in "mechanical", "macroscopic" terms when speaking of dryness and wetness and their effect on mobility, or rather in "chemical", histological terms related to the qualitative, elemental mixture. The reference to the pneuma and its dryness seems to point to the latter; but see page 29.

32 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 140.17–19; cf. ibid., 38, ed. Garofalo (1997) 198.8 for antecedent causes.

33 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 140.16–22.

According to Galen, it was the physician Athenaeus of Attaleia, the founder of the Pneumatist school, who introduced these terms and especially the concept of cohesive cause into medical theory.[34] Notably, AP's list of cohesive causes differs from the claim attributed to Athenaeus and the Pneumatists, according to which changes in the pneuma and in its mixture are the cohesive causes of diseases.[35] AP uses less common terms too, such as "stimulating causes" (συγκινητικὰ αἴτια) found in later sources[36] and "productive causes" (ποιητικὰ αἴτια), a term which Galen mentions as used by some authors and which Galen himself uses but not with respect to disease;[37] we find it in a pathological context in Pseudo-Galen *Medical Definitions*.[38] AP also distinguishes once between "apparent" (προφανής) and "unseen" (ἄδηλος) causes.[39] Since AP refers to all these technical terms only rarely, he may have simply "inherited" them from the sources he was using for describing these diseases, without actively adopting these concepts and terms into his theory. While he was clearly interested in noting the causes of disease, he does not seem to be particularly interested in the debates on causal terminology and classification.

The Anonymous also uses once the term "first-affection" (πρωτοπάθεια) – a rare term associated with Pneumatist physicians;[40] on several occasions he uses its opposite: "co-affection" (συμπάθεια).[41] Inflammation of the kidney can arise, he says, on account of a "first-affection" (πρωτοπάθεια);

34 Coughlin and Lewis (forthcoming). See Hankinson (1987), Hankinson (1998), and Frede (1980) on ancient Greek causal theories and terminology. Galen wrote books on both kinds of causes, interestingly, neither is extant in Greek: *Cohesive Causes* survives only in the medieval Arabic translation (ed. Lyons, 1969) and *Antecedent Causes* only in a fourteenth-century Latin translation (ed. Hankinson, 1998).

35 Galen, *Cohesive Causes*, 2.4, ed. Lyons (1969) 54.23–5, and see Coughlin and Lewis (forthcoming).

36 Anonymus Parisinus, *On Acute and Chronic Diseases*, 5, ed. Garofalo (1997) 38.13. He refers also to a cause "recalling" (ὑπομνηστική) the affection. This is not a cause of the disease as such but something which might cause a relapse by reminding the patient of the affection (ibid. 37, ed Garofalo (1997) 196.26–198.1); nevertheless, it is noteworthy that the Empiricist doctors referred to 'recalling signs' in their diagnostic method (e.g. Ps.-Galen, *Medical Definitions*, 176, ed. Kühn (1830) XIX.396.12). I am grateful to Philip van der Eijk for drawing my attention to this term.

37 Anonymus Parisinus, *On Acute and Chronic Diseases*, 19, ed. Garofalo (1997) 120.2; cf. Galen, *On Abundance*, ed. Kühn (1824) VII.524.

38 Ps.-Galen, *Medical Definitions*, 64, ed. Kühn (1830) XIX.363.12, cf. Aristotle, *Poetics*, ed. Bekker (1831) 1448b4.

39 Anonymus Parisinus, *On Acute and Chronic Diseases*, 30, ed. Garofalo (1997) 164.17–18; cf. Hankinson (1987: 336), (1998: 40–3).

40 Ps.-Galen, *Introduction, or the Physician*, 9, ed. Petit (2009) 22.17 = ed. Kühn (1827) XIV.699 and see Gärtner (2015: 543–4, n. ad 260.17–20). Galen criticises this term and argues for ἰδιοπάθεια ("own-affection"): *On Identifying the Affected Parts*, 1.3.2, 1.6.1, ed. Gärtner (2015) 260.18, 282.5 = ed. Kühn (1824) VIII.31, VIII.48.

41 For sympathetic affection (συμπάθεια, συμπαθέω) in AP, see: Anonymus Parisinus, *On Acute and Chronic Diseases*, 7, ed. Garofalo (1997) 54.27 (spasm), ibid., 32, ed. Garofalo (1997) 172.5 (inflammation of liver), ibid., 37, ed. Garofalo (1997) 194.1 (nephritis), ibid., 50, ed. Garofalo (1997) 246.19 (sciatica); this is a key concept in Galen's theory, e.g. *On Identifying the Affected Parts*, 1.3.2, 1.6.1–7 ed. Gärtner (2015) 260, 282–8 = ed. Kühn (1824) VIII.301, VIII.48–53 and the note and references in Gärtner (2015: 543–4, n. ad 260, 17–20).

in other words, the kidney is "primarily" affected, or is the "first to be affected". He does not suggest what could cause such an inflammation, but the point seems to be that some unnatural internal change or process began locally in the kidney and caused the inflammation inside it. Alternatively, it can arise, as we saw earlier, from morbid fluids flowing to the kidneys from another part and which cause the inflammation. This latter would be affection by "sympathy", although he does not use the term in this case.

3 Signs

The sections on the signs (σημεῖα) accompanying each disease are between a paragraph and one-page long in the modern edition. We find here the range of signs and diagnostic methods familiar to us from Greco-Roman diagnostic treatises and patient case histories.[42] The Anonymous lists signs physicians themselves can observe by means of their senses while examining patients; and signs which require physicians to rely on the patient's descriptions of their subjective sensations and feelings.[43] The former include signs such as: pulse, respiration, swellings, complexion and changes in the face, temperature changes, odours, bowel movements, secretions, coughing, sleep patterns, speech and the patient's attitude and manner. AP refers to the size, frequency and strength of the pulse, using terms known from Hellenistic and Roman pulse theories.[44] Concerning the face he notes, for instance, its bulging appearance, redness or it becoming "more ugly".[45] In addition to "acute fever" he describes the fever's pattern, for example: increases at night; "continuous" (συνεχής); "intermittent"

42 See García-Ballester (1994: 1652–9) on Galen, Jouanna (1999: 291–307) on Hippocrates, Thumiger (2017: 71–173) on cases of mental illness and (2018: 270–1) more broadly.

43 On this distinction, see Jouanna (1999: 291–307) and García-Ballester (1994: 1652–62).

44 He uses terms referring to size ("small", σμικρός and "large", μέγας – e.g. Anonymus Parisinus, *On Acute and Chronic Diseases*, 2, 18, ed. Garofalo (1997) 12.3, 114.12), speed ("fast", ταχύς and "slow", βραδύνων rather than the more common βραδύς – e.g. ibid., 3, 6, ed. Garofalo (1997) 20.11, 40.17), frequency (only "frequent", πυκνός, but not its opposite ἀραίος, "sparse" – e.g. ibid., 6, 18, ed. Garofalo (1997) 40.16, 114.12,) and strength ("strong", σφοδρός and "weak", ἀσθενής – e.g. ibid., 9, 19, ed. Garofalo (1997) 66.2, 118.7). He uses also rare terms such as διῃρημένος (literally "divided" – perhaps for "sparse") in the case of lethargy (ibid., 2, ed. Garofalo (1997) 12.3) and δεδιωγμένος ("running", "rapid") in the case of phrenitis (ibid., 1, ed. Garofalo (1997) 3.24–4.1; cf. Ps.-Rufus, *Synopsis on Pulse*, 6, ed. Daremberg and Ruelle (1879) 228.2.

45 For the face and eyes, see for example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 31, ed. Garofalo (1997) 166.24–168.1 (bulging, red); ibid., 6, ed. Garofalo (1997) 40.7, 40.12–13 (eyes hollow, face livid and black); ibid., 21, ed. Garofalo (1997) 124.18 ("leaden and sunken" μολυβδώδης καὶ κατενηνεγμένη); ibid., 27, ed. Garofalo (1997) 150.6–8 (face uglier, eyes dirty and whitish).

(διαλείπων).[46] He refers to sounds emitted from patients' bodies, for example rumbling from the bowels[47] and to information gained from haptic examination, for example the sound arising from tapping the body[48] or how pressing a particular part affects the patient's sensation of pain.[49] In the case of affections in the kidneys or bladder the author refers not only to disrupted urinating patters (e.g. blocked, in drops) but also to the appearance and quality of the urine itself.[50]

Among the signs about which physicians must learn from the patients we find diverse sensations and perceptions. Most common of these is pain, which is described with reference to its location, intensity and quality. Some descriptions of pain are very detailed, describing how the pain spreads to different parts and the sensations which accompany it, such as "heaviness" (βάρος).[51] In pleurisy, for instance, there is

> severe pain in the pleura reaching the flank and collarbone, sometimes even the shoulders and arm. Patients have the feeling of being pierced by something pointed. In the aforementioned places there are "currents".
>
> συνεδρεύει πόνος πλευρᾶς ὑπερβάλλων διήκων μέχρι λαγόνος καὶ κλειδός, ἐνίοτε δὲ καὶ ὤμου καὶ βραχίονος. δοκοῦσι δὲ οἱ ἐν τῷ πάθει [ἐν] ἀκμῇ τινι διαπείρεσθαι. διαδρομαὶ δὲ ἐν τοῖς προειρημένοις τόποις γίνονται.[52]

The reference to what patients "think" (δοκεῖν) or "imagine" (φαντασίαν ἔχειν) they are sensing occurs in many passages and is followed at times by vivid descriptions of such sensations or perceptions. In colic, the pain and

46 Anonymus Parisinus, *On Acute and Chronic Diseases*, 9, ed. Garofalo (1997) 64.23 (acute, increases at night); ibid., 37, ed. Garofalo (1997) 194.1 (acute). συνεχής (ibid., 1, 2, ed. Garofalo (1997) 2.23, 12.2) and διαλείπων (ibid., 32, ed. Garofalo (1997) 172.5) are technical terms for describing fever, but we do not find in AP other common terms, such as τριταῖος (tertian).

47 Anonymus Parisinus, *On Acute and Chronic Diseases*, 15, ed. Garofalo (1997) 102.10, 102.19–20 (colic).

48 Anonymus Parisinus, *On Acute and Chronic Diseases*, 45, ed. Garofalo (1997) 226.12–13 (dropsy).

49 Anonymus Parisinus, *On Acute and Chronic Diseases*, 49, ed. Garofalo (1997) 246.15–16 (sciatica).

50 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 37, ed. Garofalo (1997) 196.19–20 (nephritis) "like a spider web" (οἷα ἀράχνια) or "like that of beasts of burden" (ὅμοια τοῖς ὑποζυγίοις); ibid., 33, ed. Garofalo (1997) 180.13 (jaundice): bilious and yellow; ibid., 40, ed. Garofalo (1997) 206.14–15 (paralysis of the bladder): stoppage or drops.

51 Some examples of pain descriptions: Anonymus Parisinus, *On Acute and Chronic Diseases*, 14, ed. Garofalo (1997) 94.16–20 (ileus); ibid., 32, ed. Garofalo (1997) 170.25–172.3 (inflammation of liver); ibid., 37, ed. Garofalo (1997) 192.24–194.1 (inflammation of kidneys). A sensation of heaviness: ibid., 9, ed. Garofalo (1997) 64.24–5 (*peripneumonia*); ibid., 10, ed. Garofalo (1997) 72.20–1 (syncope); ibid., 26, ed. Garofalo (1997) 142.7 (haemoptysis); ibid., 31, ed. Garofalo (1997) 166.22 (asthma); ibid., 40, ed. Garofalo (1997) 206.15–16 (paralysis of the bladder).

52 Anonymus Parisinus, *On Acute and Chronic Diseases*, 8, ed. Garofalo (1997) 58.18–21.

sensation of "distention" (διάτασις) is so great that the patients "think their flanks are breaking and imagine that their vertebrae are separating".[53] In vertigo the patients "think they see circles".[54] It seems that the exact quality of the pain or sensation was recorded in order to assist physicians in identifying the disease from which their patient was suffering and distinguishing it from similar diseases.[55] These descriptions reflect the accounts of patients attempting to explain to their physicians subjective sensations otherwise inaccessible to the physician. Much of this information was probably gained from direct questions the physician addressed to the patient, which was a common part of the physician's examination.[56] The universal nature of the treatise means that there are no case histories or information on particular patients. However, the particularity and peculiarity of some of the signs and sensations most likely derive from individual (at times perhaps unique) cases, which were then compiled into a general comprehensive list.[57] AP or his sources might have changed some of the patients' original formulations, but the particularities of the sensations imply that they reflect the patients' original perception of the experience and the language they used to express it.[58] The physicians could not know that a patient is seeing circles, feeling heaviness, a piercing sensation or his/her parts separating without verbal input from the patients. The physicians' addition of verbs such as "think" or "imagine" further delimitates between the patient's and physician's perspectives and experiences. These were probably not (all) AP's own patients and part of the information probably originates from works of other authors and from other diagnostic and therapeutic handbooks. It is hard to imagine that he encountered all the kinds of diseases and their diverse manifestation he describes; and the doxographic parts of his work clearly indicate that he was using other sources.

53 Anonymus Parisinus, *On Acute and Chronic Diseases*, 15, ed. Garofalo (1997) 102.12–15; cf. in ileus, the patient's belief that their hip joints and ribs are "releasing" (λύεσθαι) – ibid., 14, ed. Garofalo (1997) 94.24–6.

54 Anonymus Parisinus, *On Acute and Chronic Diseases*, 17, ed. Garofalo (1997) 110.13–15.

55 The presence or severity of pain (rather than the particular quality of the pain) also had a therapeutic significance, namely in indicating the recommended course of treatment. We find many sentences such "if pains persist …" followed by a recommended treatment (for instance: Anonymus Parisinus, *On Acute and Chronic Diseases*, 6, ed. Garofalo (1997) 44.6; ibid., 5, ed. Garofalo (1997) 34.20; ibid., 14, ed. Garofalo (1997) 96.27.

56 García-Ballester (1994: 1659–62), Letts (2015), Thumiger (2018: 271–3).

57 On case histories in the Hippocratic *Epidemics* see most recently Thumiger (2018); in Galen many case histories are intended to demonstrate the universal method or theoretical point and prove his professional superiority, see García-Ballester (1994: 1648–51) and Nutton (1991: 9–14); see also Mattern (2008) for a detailed discussion of Galen's case histories and Lloyd (2009) for a comparison.

58 On the language of expressing pain and the patient's role, see Roselli (2015), Roby (2015), and King (2018).

3.1 The progress of disease

The diagnostic sections in AP are not just "flat" or random lists of signs, but describe the diversity in cases and manifestations of each disease. The narrative usually begins from the external apparent signs, or most obvious ones, moving on to behaviour or subjective sensations. In other cases the narrative follows the different manifestations of the disease and its signs, and especially the intensification or remission of certain signs. The signs change as the disease progresses and the patient's condition worsens or improves. AP sometimes marks the passage of time and the progress of the disease by noting the time of day or the number of days which have elapsed.[59] In other cases, he marks the progress by referring to general stages ("at the beginning … later", "if they get worse")[60] or key changes (such as the burst of an abscess) which entail or lead to a new or slightly changed set of signs: for example, new pains or secretions appear, the pulse or fever change and so forth.[61] In some diseases AP distinguishes two different kinds. One kind of angina entails swelling and pain, the other does not.[62] In some affections (such as *mania* and epilepsy) patients might be either agitated and active, or lethargic and passive – each kind with its particular symptoms.[63] As we shall see, the distinction of different stages, sets of symptoms or manifestations of the disease was essential for the treatment, for each requires a different intervention, remedy or course of action.

3.2 Localising disease

The author often mentions the body part(s) in which the signs occur. Such information was important for identifying the disease and determining the course of treatment, especially in the case of applying external remedies. In some cases, the language and remarks of AP in this respect point to

59 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 2, ed. Garofalo (1997) 12.2–3 (lethargy: "fever intensifies at nighttime"); ibid., 4, ed. Garofalo (1997) 26.13–14 (apoplexy: "some succumb on the first, second or third day"; ibid., 8, ed. Garofalo (1997) 60.6–7 (pleurisy: "all things worsen around the fourth day").

60 "If they get worse" (χεῖρον ἀπαλλάττοντες), for instance: Anonymus Parisinus, *On Acute and Chronic Diseases*, 7, 21 ed. Garofalo (1997) 50.20, 124.16; "when the bursting (of the abscess) is near" (πλησίον οὔσης ἀναρρήξεως), "when the abscess breaks" (ῥαγέντος τοῦ ἀποστήματος): ibid., 27, ed. Garofalo (1997) 160.5–10); "at the beginning … later" (κατ' ἀρχάς … ὕστερον): ibid., 27, ed. Garofalo (1997) 160.1–2.

61 For example: symptoms get inverted in *melancholia* – Anonymus Parisinus, *On Acute and Chronic Diseases*, 19, ed. Garofalo (1997) 118.5–6; the fever pattern changes during abscesses and shivers begin (ibid., 27, ed. Garofalo (1997) 160.1–3); pains increase in ileus (ibid., 14, ed. Garofalo (1997) 94.24).

62 Anonymus Parisinus, *On Acute and Chronic Diseases*, 6, ed. Garofalo (1997) 40.

63 Anonymus Parisinus, *On Acute and Chronic Diseases*, 3, ed. Garofalo (1997) 20; ibid., 18, ed. Garofalo (1997) 114.

the diagnostic idea of "the affected part" (ὁ πεπονθὼς τόπος, τὸ πεπονθὸς μέρος), which emerged in post-classical medicine. Classical sources often note the bodily location of a disease or the signs accompanying it,[64] but in later sources the question of identifying the affected part becomes a distinct diagnostic aim and matter of debate. Extensive anatomical research together with a need to overcome practical diagnostic challenges and the intense professional rivalry in the Hellenistic and Early-Roman periods all contributed to the emergence of this question.[65] There is still much to investigate concerning the history of this idea, but what can be said with certainty is that by the first century CE the idea and question were sufficiently articulated so as to lead the Rome-based physician, Archigenes of Apamea, to write a three-book treatise entitled "On the Affected Parts" (Περὶ τῶν πεπονθότων τόπων). The work is now lost, but fragments which have reached us through later sources demonstrate his attempt to identify the connection between particular physical signs (e.g. distinct types of pain) and particular body parts.[66] Less than a century later, Galen adopted and adapted Archigenes' title in his own work "On Identifying the Affected Parts" (Περὶ διαγνώσεως τόπων πεπονθότων) – further stressing the diagnostic nature and importance of this idea.[67] The aim of Galen's six-book work is to teach the physician how to identify the disease and affected part based on the signs which patients show. Galen's treatise and the fragments from Archigenes' work reflect the challenge which physicians faced when attempting to identify the exact internal anatomical source and location of a patient's distress in a period in which there were no means for looking deep inside the body without harming it. The identification of the affected part had clinical implications as regards treatment: as Galen demonstrates in an often-cited case history, treating impaired mobility of the fingers by applying remedies to those parts is completely useless if the impairment is caused, in fact, by a problem in the spine and spinal cord.[68]

64 For example, in the Hippocratic nosological works (*Affections, Internal Affections, Diseases 1–3*) listing different diseases and their signs and treatments; on this group of works see Craik (2015: sections 3, 22, 30–33) and Roselli (2018); see also Gundert (1992) for a more general discussion of body parts in the Hippocratic Corpus.

65 Gelpke (1987); van der Eijk (1998: 349–51); McDonald (2012).

66 On Archigenes theory regarding pain and its diagnostic relevance, see, in particular, Galen, *On Identifying the Affected Parts*, 2.6.1, 2.8.1–3, 2.9.1, ed. Gärtner (2015) 326.1–14, 328.25–330.24, 352.16–24 = ed. Kühn (1824) VIII.86–7, VIII.90–2, VIII.110; for discussion, see Roselli (2015), Roby (2015), Gärtner (2015: 606–7), and King (2018: 83–6).

67 On the form of Galen's title, see Gärtner (2015: 450–1).

68 Galen, *On Identifying the Affected Parts*, 1.6, ed. Gärtner (2015) 290–4 = ed. Kühn (1824) VIII.56–9.

It has been shown that many of the aetiological sections in AP reflect his interest in the question of the location of disease.[69] We find important evidence in other sections of AP as well. He uses the term "affected part" twice in full and several times with the noun implied by the participle.[70] He is, in fact, the earliest extant source in which this combination appears, although the loss of most of our Hellenistic medical sources means that he was not necessarily the first to use it; and we do not know the chronological relation between him and Archigenes. Most of the relevant references in AP occur in the therapeutic context. However, two occasions in the diagnostic sections are noteworthy. In the case of ulceration of the bladder, half of the (short) diagnostic section concerns the location of the ulcer:

> if the upper parts are in pain, the ulcer is around the "bottom" (of the bladder),[71] but if the groin and perineum are in pain, the fleshy part (of the bladder) is affected. When the (painful) sensation is near the penis itself, the ulceration is around that part (μέρος).[72]
>
> τῶν μὲν οὖν ἀνωτέρω μερῶν ἀλγουντων περὶ πυθμένα τὸ ἕλκος· εἰ δὲ βουβῶνες εἶεν καὶ περίνεον ἐν ὀδύνῃ, τὰ σαρκώδη πέπονθεν· ὅτε δὲ πρὸς αὐτῷ τῷ καυλῷ ἡ αἴσθησις, περὶ τοῦτο τὸ μέρος ἡ ἕλκωσίς ἐστιν.

In this passage, the locations of the pain which the patients report serve as an indication for the location of the ulcer in each patient. It is interesting that the aetiological and therapeutic sections do not pick up this issue of localisation, although is distinctively emphasised in the diagnostic section. The aetiological section, which is not doxographic, refers to different causes (e.g. drugs and inflammation), but not to different parts. The long therapeutic section lists diverse remedies, distinguishes the treatment of women and even gives

69 van der Eijk (1998: 350–1), (1999a: 321–3); McDonald (2012: 76–8). In this context it was related also to debates concerning the soul and its relation to particular parts of the body, see Mansfeld (1989) and Mansfeld (1990); McDonald (2012: 79–82); Lewis (2017: 287–92); Lewis (2018: 167–74).

70 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 142.26–144.1 (τὰ πεπονθότα μέρη) – in the therapeutic section; ibid., 49, ed. Garofalo (1997) 246.9–10 (οἱ πεπονθότες τόποι) – in the aetiological section. With participle alone and noun implied: ibid., 27, 48, 50, ed. Garofalo (1997) 148.9, 242.11, 252.21 – all in therapeutic sections.

71 πυθμήν literally means "foundation" or "bottom" (Fuchs translates it simply as "the bottom", presumably referring to the bottom part of the bladder) – cf. Galen, *On the Anatomy of the Uterus*, 1.2, 3.1, ed. Nickel (1971) 34.10, 38.1 = ed. Kühn (1821) II.888, II.890. The terminology is converse to what we would expect: the "bottom of the bladder" is its cranial ("upper") part, as is the case for the "bottom" (πυθμήν) of the uterus – ibid. 2.2, 9.1, ed. Nickel (1971) 36.11–12, 48.5–6 = Kühn (1821–33) II.889, II.899 (compare the modern name "fundus" for these parts of the bladder and uterus – named so since they are at the opposite end of the "mouths" of the organs). See Fürst von Lieven and Humar (2017: 99–102, 104) for the converse directions in ancient terminology.

72 Anonymus Parisinus, *On Acute and Chronic Diseases*, 38, ed. Garofalo (1997) 202.6–9.

particular instructions for cases of "dirty ulcers" (ῥυπαρὰ ἕλκη), which are mentioned in the diagnostic section.[73] He does not prescribe, however, different treatments according to the affected part. He recommends applying external remedies to the "lower abdomen" (τὸ ἦτρον) and "loin" (ὀσφύς), but this appears to be a universal recommendation regardless of the ulcer's exact location.[74] A few lines later he refers to soothing "the places" (οἱ τόποι) with fomentations, but it is unclear whether he is referring only to the abdomen and loin just mentioned, or to other parts too.[75] Perhaps experienced readers were expected to understand that such treatments are to be applied to the affected part identified from the location of the pain (on the Anonymous' expectations from his readers, see below, section 4.2).

In the second reference to the particular location of the affection we find a close connection between the diagnostic localisation and the aetiological section. This is the chapter on haemoptysis – the coughing up of blood. After listing different antecedent and cohesive causes for the disease (see above, pp. 31–2), AP adds:

> It also differs according to location. For it (sc. the blood) is carried either from the head, or the mouth, or the oesophagus, or the stomach, or the bronchus, or the windpipe, or the lung, or the thorax.[76]
>
> διαφέρει δὲ καὶ κατὰ τόπους, ἢ γὰρ ἀπὸ κεφαλῆς φέρεται, ἢ στόματος, ἢ στομάχου, ἢ κοιλίας, ἢ βρόγχου, ἢ τραχείας ἀρτηρίας, ἢ πνεύμονος, ἢ θώρακος.

The diagnostic section is dedicated entirely to explaining the manner in which one can diagnose the anatomical origin of the blood, that is, the location of the affection. The section is structured as a list of parts mentioned in the aetiological section – windpipe, head, lung, thorax, oesophagus and stomach (the mouth and bronchi are not mentioned). For each part there follows a description of the blood in terms of colour and other qualities (e.g. clotted, frothy, ill-smelling) as well as of other signs (e.g. cough or pain).[77] The

73 On dirty ulcers: Anonymus Parisinus, *On Acute and Chronic Diseases*, 39, ed. Garofalo (1997) 202.5, and for their treatment: ibid., 39, ed. Garofalo (1997) 204.19–24. On the treatment of women, see pp. 47–8.

74 Anonymus Parisinus, *On Acute and Chronic Diseases*, 39, ed. Garofalo (1997) 202.24–204.1.

75 Anonymus Parisinus, *On Acute and Chronic Diseases*, 39, ed. Garofalo (1997) 204.3.

76 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 140.19–22.

77 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 140–2. This reminds one somewhat of Galen's examples, right at the outset of his work on affected parts, for identifying the affected part from the substance expelled from inner parts of the body (Galen, *On Identifying the Affected Parts*, 1.1.2–10, Gärtner (2015) 226–32 = ed. Kühn (1824) VIII.2–6). Among these examples he mentions the difficulty of identifying whether matter coughed up originates from the bronchi or lung, which could point to the location of the affection. Identifying the anatomical origin of coughed blood still challenges modern physicians.

treatment recommended by AP is partially "common" (κοινῶς) for all patients, and partially adapted to the individual patient, according to the severity of the case and the patient's endurance or preferences.[78] AP notes once that certain external remedies (sponges with diluted vinegar) "should be applied to the affected parts" (ἐπιρριπτέον τοῖς πεπονθόσι μέρεσι) – presumably following the identification of these parts by means of the detailed diagnostic list.

4 Treatment

The therapeutic sections are the longest and most detailed parts of the work. They are at least a page long in the modern edition and often extend to two or three pages, sometimes even to four or five pages (e.g. on angina and dropsy – chapters 6, 45). There is a clear logical narrative in the prescriptions, depicting an organised but flexible method. The sections often begin with instructions as to where and how to lay the patients, with regard to both the actual room (cellar, no light, near a fire, etc.),[79] the type of mattress or bedding (light, soft, etc.),[80] and the posture of the patient (e.g. on an elevated pillow).[81] This sets the spatial location in which the treatment and patient–doctor encounters will take place.[82] In many cases, however, the author jumps straight to the therapeutic prescriptions.[83] On a few occasions he begins with a general note on the chances of successful treatment (e.g. phthisis)

78 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 142–4; κοινῶς, ibid., 26, ed. Garofalo (1997) 142.17. For other adaptations, e.g. ibid. 26, ed. Garofalo (1997) 142.24–6, 144.7–11, 144.16.

79 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 10, ed. Garofalo (1997) 74.6–8 (syncope); ibid., 11, ed. Garofalo (1997) 82.17 (ravenous appetite); ibid., 31, ed. Garofalo (1997) 168.6–7 (asthma).

80 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 10, ed. Garofalo (1997) 74.8–9, ibid., 11, ed. Garofalo (1997) 82.18–19 (ravenous appetite); ibid., 26, ed. Garofalo (1997) 142.20 (haemoptysis).

81 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 7, ed. Garofalo (1997) 52.6–9 (spasm); ibid., 26, ed. Garofalo (1997) 142.18–19 (haemoptysis).

82 AP usually relates the instructions to the practitioner in the impersonal adverbial form with -εόν endings, for example: κατακλιτέον – "one must lay (the patient)", e.g. Anonymus Parisinus, *On Acute and Chronic Diseases*, 1, 18, ed. Garofalo (1997) 4.18, 114.18; χρηστέον – "one must use", e.g. ibid., 2, ed. Garofalo (1997) 16.8; ἐμφυσητέον – "one must blow (vinegar into their nostrils)", ibid., 3, ed. Garofalo (1997) 24.1 and so forth. He often uses also the third-person imperatives, for example: ἐμβρεχέσθω "the patients are to be embrocated", ibid., 23, ed. Garofalo (1997) 134.19; προσαγέσθω "(phlebotomy) should be applied", ibid., 26, ed. Garofalo (1997) 142.26 and so forth. In some cases, he uses the first-person plural, for instance: ἐπιρρίψομεν, "we apply…" – ibid., 23, ed. Garofalo (1997) 134.24.

83 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 8, ed. Garofalo (1997) 60.11 (pleurisy); ibid., 23, ed. Garofalo (1997) 134.16 (cynic spasm).

or the consideration of the causes of the disease (atrophy, jaundice).[84] Regardless of the manner in which they begin, all the therapeutic sections follow a diachronic narrative. In some cases, time is mentioned explicitly by reference to the number of days.[85] More often, however, the passage of time is noted with reference to the course of the disease rather than by exact days. The section lists possible signs and changes occurring to the patient and what one must do in each case. This is usually marked with conditional clauses, with the therapeutic measure in the apodosis: "if inflammations of the bladder also occur, evacuate with…";[86] "if the loss of blood is not checked, inject…";[87] "if he does not awaken, we shall blow…";[88] "if the vomiting persists … apply also cupping glasses … if the extremities become cold and the pulse diminishes, anoint them…".[89] The examples are numerous and occur throughout. Such references to the number of days or changing signs point to the expectation or assumption that often the physician will be treating and visiting the patient over a prolonged period, extending to weeks and even months.[90] We see, then, that changes in the course of the disease and in the patient's condition and the effects of the treatment on the patient are crucial for determining the appropriate therapeutic measure(s) – each requires a different intervention, remedy, or course of action. We will discuss shortly some of the considerations which determine the choice at each juncture.

As for the treatments themselves, AP's instructions include the whole range of therapeutic measures known from Greco-Roman medical sources: phlebotomy, also by means of leeches;[91] medicines and substances taken through the mouth or other cavities (e.g. as clysters), or applied externally (e.g. embrocation and pitch-plaster) – occasionally exact recipes are noted;[92] cupping; scarification; amulets; massage; dietary and other regimen instructions; exercises – passive and active movements. On several occasions, he notes that the external remedy should be applied to the

84 Anonymus Parisinus, *On Acute and Chronic Diseases*, 27, ed. Garofalo (1997) 150.14–16 (phthisis); ibid., 30, ed. Garofalo (1997) 164.17–18; (atrophy); ibid., 33, ed. Garofalo (1997) 180.22–182.1 (jaundice) (cf. ibid. 182.19, 184.12).

85 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 2, ed. Garofalo (1997) 18.6 (lethargy); ibid., 21, ed. Garofalo (1997) 128.2, 128.14–15 (paralysis).

86 Anonymus Parisinus, *On Acute and Chronic Diseases*, 39, ed. Garofalo (1997) 204.14–15.

87 Anonymus Parisinus, *On Acute and Chronic Diseases*, 38, ed. Garofalo (1997) 200.10.

88 Anonymus Parisinus, *On Acute and Chronic Diseases*, 2, ed. Garofalo (1997) 16.21.

89 Anonymus Parisinus, *On Acute and Chronic Diseases*, 13, ed. Garofalo (1997) 92.7–11.

90 On the duration of physicians' involvement and care, see Thumiger (2018: 267–8) on Hippocratic authors, and Mattern (2008: 65) on Galen.

91 For leeches, see, for example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 2, ed. Garofalo (1997) 16.10–13 in persistent cases of lethargy; ibid., 16, ed. Garofalo (1997) 108.12–13, 108.16–17 (satyriasis).

92 Examples include: medicinal drinks for asthma (Anonymus Parisinus, *On Acute and Chronic Diseases*, 31, ed. Garofalo (1997) 168.12–19); a clyster injected for bleeding from the bladder (ibid., 39, ed. Garofalo (1997) 200.10–13).

"affected part".[93] However, in some cases in which his discussions of the causes or signs stress the question of the affected part, the therapeutic prescriptions do not reflect the complexity at all (e.g. in phrenitis) or only in passing (in haemoptysis).[94] He also refers to proven experience and tested measures: "I know (οἶδα) that many have confirmed from experience (προσμαρτυροῦντες)" (for ileus); "drugs which are for melancholics through experience (διὰ πείρας)".[95] Surgery is rarely mentioned: for cases of a "bursting" of an abscess between the peritoneum and intestines and as a last resort in the case of bladder bleeding and paralysis.[96] In some cases, physical measures to restrain the patient are sanctioned, but a distinction is made between slaves and freemen regarding the measures which may be used.[97] Some measures are more "psychological", such as encouraging the patient, or instilling hope; in such cases "words" or "reason" (λόγοι, λόγος) are therapeutic "tools" which the physician applies in attempting to cure the patient.[98] These are not forms of "emotional" or "philosophical" therapy, which centred on ethical improvement and philosophical discourse between patient and "therapist", rather, the measures recommended by AP are means to address specific distressed feelings or behaviour which occur on account of a particular pathology.[99]

93 Anonymus Parisinus, *On Acute and Chronic Diseases*, 26, ed. Garofalo (1997) 142.26–148.9 (sponging and then meal flower or incense powder in cases of haemoptysis); ibid., 47, ed. Garofalo (1997) 242.11–12 (pitch-plaster in the case of gonorrhoea); ibid., 50, ed. Garofalo (1997) 252.20 (rubbing in the case of gout).

94 See above, pp. 39–40 on haemoptysis and van der Eijk (1999a: 308) on phrenitis.

95 Anonymus Parisinus, *On Acute and Chronic Diseases*, 14, ed. Garofalo (1997) 98.17–18; ibid., 19, ed. Garofalo (1997) 118.24–5; cf. ibid., 50, ed. Garofalo (1997) 256.20–1 for gout. Cf. Bouras-Vallianatos (2014) on the ways in which Alexander of Tralles (sixth century CE) relates and emphasises his practical experience.

96 Anonymus Parisinus, *On Acute and Chronic Diseases*, 33, ed. Garofalo (1997) 178.10–12; ibid., 38, ed. Garofalo (1997) 200.17–20; ibid. 40, ed. Garofalo (1997) 208.17-19. These appear as cases in which fluids accumulate in hollows of the body which cannot be accessed through other "routes" (e.g. urethra, mouth, anus) since they lie between passages leading to the surface of the body.

97 Slaves suffering from certain effects of phrenitis should be bound, whereas freemen should not; the reason given is that "this measure excites anger and can increase it" (Anonymus Parisinus, *On Acute and Chronic Diseases*, 1, ed. Garofalo (1997) 10.3–7).

98 For example, in the cases of phrenitis, syncope, *melancholia*, and neurosis (Anonymus Parisinus, *On Acute and Chronic Diseases*, 1, 10, 19–20 ed. Garofalo (1997) 6.16–24, 74.16–17, 118.27–120.9, 122.9–11, 122.14–15). For λόγος, see for instance: ibid., 1, ed. Garofalo (1997) 6.16: τῇ ἀπὸ λόγου βοηθείᾳ παρηγορήσομεν ("we will encourage with the help from reason") – cf. ibid., 19, ed. Garofalo (1997) 118.27: ἡ διὰ τοῦ λόγου βοηθείᾳ ("through the help of reason"); ibid., 20, ed. Garofalo (1997) 122.9: τῇ διὰ τῶν λόγῶν νουθεσίᾳ ("using warning through words"). See Gill (2018: 366, nn. 3–5) for some parallels. See Porter (2015) for similar methods in Soranus; see Thumiger (2016) and Thumiger (2017: 345–76) on the emotional signs in bodily pathologies in the Hippocratic writers and these physicians' efforts to disperse patients' fears regarding their chances of surviving the disease.

99 See Gill (2018) for a recent discussion of "philosophical therapy of emotions" and its place in medical writings; see van der Eijk (2013) on the treatment and curability of mental diseases in Greco-Roman philosophical and medical thought.

4.1 A distinction between curative and restorative stages

In many cases, the therapeutic sections end with a transition to the "restorative" (ἀναληπτικός, ἀνάληψις) stage, which aims to help the patient regain his or her strength and recover fully. In one case AP opposes this restorative treatment (ἀναληπτικῶς) to the treatment aimed at eradicating (ἀποικονομεῖσθαι) the cause of the disease. AP does not always explain what this restorative stage entails and often simply states that one "can proceed to the restorative method" (ἐστι ἐπὶτόν ἀναληπτικὸν χωρεῖν τρόπον) or "should adopt" (ἀναλαμβανέσθω) it.[100] Those using the treatise are expected to know what to do. Other passages offer some details: wine and baths are often mentioned (and in the case of pleurisy are said to be the first stage),[101] easily-digested, appetising and laxative food and drink,[102] riding,[103] passive exercises or walks, and at times vocal exercises and the retention of breath as well as massages.[104] The idea seems to be to apply measures and regimens which are not too demanding or taxing, but which cannot be performed before the patient regains some of his or her strength nor before their impaired faculties (e.g. digestive, motor) are somewhat restored.

4.2 An expectation for informed readers

Despite the length and detail of the therapeutic instructions, crucial information is "missing". Drugs and external remedies are often mentioned only generally: "sprinkle … (drugs) which are capable of condensing and strengthening (ῥωννῦναι καὶ συστρέφειν δυναμένοις)";[105] "we apply also (drugs) with attractive faculties (αἱ ἐπισπαστικαὶ δυνάμεις)…".[106] This is the case with other aspects of the treatment as well. For example, in the case of ileus, "if the general condition is changing" the physician must encourage "an accurate (ἀκριβής) restorative treatment".[107] And for those suffering from *mania*, "one must choose the air appropriate (κατάλληλον) to them".[108] Similar examples can be found in almost every chapter. Which

100 For example: Anonymus Parisinus, *On Acute and Chronic Diseases*, 1, 6, 26, 33, ed. Garofalo (1997) 10.12–13, 48.22–4, 146.17–18, 182.13. In liver inflammation he refers to "the common restorative method" (ὁ κοινός τῆς ἀναλήψεως τρόπος, ibid., 32, ed. Garofalo (1997) 178.11–12), but it is not clear whether this is common only to all possible cases described for this disease, or more generally for different diseases.

101 Anonymus Parisinus, *On Acute and Chronic Diseases*, 8, ed. Garofalo (1997) 64.12–13.

102 Anonymus Parisinus, *On Acute and Chronic Diseases*, 12, ed. Garofalo (1997) 88.17–20.

103 Anonymus Parisinus, *On Acute and Chronic Diseases*, 21, ed. Garofalo (1997) 130.1–2.

104 Anonymus Parisinus, *On Acute and Chronic Diseases*, 15, ed. Garofalo (1997) 106.1–3.

105 Anonymus Parisinus, *On Acute and Chronic Diseases*, 33, ed. Garofalo (1997) 184.20–1.

106 Anonymus Parisinus, *On Acute and Chronic Diseases*, 23, ed. Garofalo (1997) 134.24.

107 Anonymus Parisinus, *On Acute and Chronic Diseases*, 14, ed. Garofalo (1997) 100.25–6.

108 Anonymus Parisinus, *On Acute and Chronic Diseases*, 18, ed. Garofalo (1997) 114.19–20.

drugs are strengthening or hold attractive faculties, what is the accurate treatment or appropriate air? This is knowledge the readers must gain independently. One may argue that these vague instructions are a result of AP's method of copying snippets from other sources, which had originally explained these details. But even if this was the case, it appears the Anonymous considered his presentation acceptable and comprehensive – he expected his readers to know what he meant and to be able to complete the details we consider "missing". Nevertheless, the ambiguity may indicate something deeper as well.

4.3 Theory, experience and the patient

The lack of detail concerning the "accurate" regimen or particular drugs to apply may derive from more than just the assumption that experienced physicians know what these were in each case. It may reflect the understanding that the suitable drugs or regimen may change from case to case and from patient to patient, even if a particular case seems to fit the universal pattern the physician learned about in theory or the pattern he observed in earlier cases.[109] AP demonstrates an acute awareness that what theory or even prior experience have taught or shown to be "useful" or "correct" cannot be taken for granted or followed blindly in practice. It is necessary, therefore, to leave the choice of the appropriate remedy or the time of its application to the judgement of the physician at hand, based not only on "textbook theory" and prior experience, but also on common sense and (an educated) assessment of the individual patient and his or her condition at a given time. A passage from the therapeutic section of syncope illustrates the point:

> The best physicians should follow closely the benefits obtained from the administered (remedy); and if the patient benefits (from a certain remedy), then continue (the treatment) with the same (remedies); and if not, pass on to a different remedy.
>
> δεῖ δὲ τὸν ἄριστον ἰατρὸν παρακολουθεῖν τοῖς ἐκ τῶν προσφερομένων βοηθήμασι καί, εἰ μὲν εὐαρεστοῖτο, τοῖς αὐτοῖς ἐπιμένειν, εἰ δ' οὖν, μεταβαίνειν ἐφ' ἕτερα.[110]

This passage is an important testimony for the manner of gaining empirical experience through trial and error. It is also a fascinating window onto medical practice and the Roman "physician at work". It reflects the

109 This problem stands at the basis of Galen's concept of "qualified experience" (διωρισμένη πεῖρα), on which see van der Eijk (2005).

110 Anonymus Parisinus, *On Acute and Chronic Diseases*, 10, ed. Garofalo (1997) 76.13–15.

challenge which physicians faced (and still face) each time they examined a patient and tried to solve the particular puzzle the patient's condition posed. What should guide the physician at this moment, according to the Anonymous, is the particular case at hand. He must determine the course of treatment based on the condition of the individual patient: his/her strength, response to treatment, and their comfort, tolerance or ability to endure certain treatments.[111] This emerges as an essential part of AP's therapeutic approach and method. In many cases, AP refers explicitly to the patient's ability to endure and tolerate a certain remedy. For jaundice, boiled hellebore can be used, and in spasm, gentle massages "if the patients are vigorous (εὔτονοι)".[112] As AP notes elsewhere, the *dynamis*, i.e. the patient's individual capacity, "must always (ἐκ παντός) be preserved".[113] In *phthisis*, food should be given "in accordance with (the patient's) *dynamis*" (κατὰ δύναμιν).[114] In some cases of dysentery, one must bleed the patient at the beginning of the treatment, but only "if the *dynamis* permits" (τῆς δυνάμεως ἐπιτρεπούσης).[115] Caelius Aurelianus, writing in Latin in the fourth century CE on the basis of Soranus' Greek second-century writings, often uses the phrase *permittentibus viribus* (lit: "if the capacities allow") to remind his readers to take into account the endurance of their patient when applying therapeutic measures.[116] Scholars have noted similar concerns in other medical sources of the Roman period, such as Scribonius Largus, Celsus and Soranus. Amber J. Porter concludes that writers from the first to the second century "demonstrate a particular – if not necessarily novel – interest in how patients are treated, advocating compassion and humanity in their interactions with them".[117]

AP is an important testimony for such interest. In the passages cited above, there seems to be more at stake for him than the patient's strength

111 Galen discusses this tension between the universal and particular, between theory and practice, but unlike AP he stresses the importance of theory (pathological, physiological and pharmacological) in solving the particular case. He presents a complex classification of a set of criteria (such as gender, age, body mixture and so forth) which indicates the appropriate therapeutic course to the physician trained in this theoretical framework. See van der Eijk (2008: 287–97).

112 Anonymus Parisinus, *On Acute and Chronic Diseases*, 33, ed. Garofalo (1997) 184.9; cf. ibid., 7, 27, 31, ed. Garofalo (1997) 54.1, 160.22–3, 168.7–8.

113 Anonymus Parisinus, *On Acute and Chronic Diseases*, 4, ed. Garofalo (1997) 28.20–1.

114 Anonymus Parisinus, *On Acute and Chronic Diseases*, 27, ed. Garofalo (1997) 152.17; cf. ibid., 5, 6, 7, 51, ed. Garofalo (1997) 32.14–15, 40.24, 32.28, 260.12.

115 Anonymus Parisinus, *On Acute and Chronic Diseases*, 43, ed. Garofalo (1997) 220.2; cf. ibid., 4, and 5, ed. Garofalo (1997) 28.15, 28.20–1, and 34.14–15.

116 Caelius Aurelianus, *Acute Diseases*, 1.10.70, ed. Bendz (1990) I.62.5 (phlebotomy); ibid., 1.10.82, ed. Bendz (1990–3) I.68.1 (fasting); ibid., 3.4.45, ed. Bendz (1990–3) I.318.24 (phlebotomy); Caelius Aurelianus, *Chronic Diseases*, 3.2.24, ed. Bendz (1993) II.692.21 (eating).

117 Porter (2015: 301). See also Deichgraber (1950) and Mudry (1997), as well as Ecca (2015: 329, 331–7) who also notes that such concerns are practical at times in so far as they regard the effect on the physician's fee or the utility of the treatment, rather than the patient's comfort or distress (ibid: 329, 340).

in a purely "clinical" sense and the possibility that the wrong treatment would undermine the chances of recovery. Rather, the consideration seems to be the patient's general well-being and comfort – whether out of pure compassion or practical considerations of avoiding a bad reputation among potential clients. Often the therapeutic instructions are introduced by conditional clauses such as "if they (sc. the patients) can tolerate (ἀνέχοιντο, ἐπιδέχοιντο) it" or "if they cannot bear (φέροιτο) it".[118] Terms such as εὐαρέστησις ("relief") and its cognates εὐάρεστον and εὐαρεστέω ("bringing relief" or "pleasing") hint more strongly at the feeling of comfort.[119] The frequency of changing the poultices, for example, and the "suitable measure" (αὔταρκες μέτρον) for applying them is determined by the "endurance" or "well-being" of the patient (ἡ τοῦ νοσοῦντος εὐφορία).[120] Such phrases are not general statements in introductory or aphoristic passages such as in Scribonius or the *Praecepta*.[121] They are an essential part of particular therapeutic instructions AP expects his readers to follow in order to ensure that the treatments are not too harsh and harming. Moreover, the patient's endurance appears in AP as a crucial consideration guiding the physician's work in place of theoretical classifications. In one case, AP explicitly promotes this subjective criterion of the patient's well-being or reaction to the treatment over more rigid criteria such as particular times: "the best measure (μέτρον ἄριστον) (of applying the aforementioned remedies to the head) is the relief (εὐαρέστησις) to the patient, rather than fixed times (ἢ ὁ κριθεὶς χρόνος)".[122] Indeed, in AP we find fairly little consideration of "given" criteria such as age group, favoured by many authors as indications for the appropriate course of treatment.

4.4 Limited consideration of gender, age and other "given" criteria

Our medical sources from the classical period onward commonly use external criteria such as the seasons or the time of day, as well as inherent criteria such as gender and age as a means for classifying patients, signs and

118 For example: ἐπιδέχοιντο: Anonymus Parisinus, *On Acute and Chronic Diseases*, 4, ed. Garofalo (1997) 28.17; φέροιεν, φέροιτο: ibid., 10, 42, 39, 26 ed. Garofalo (1997) 78.10–11, 78.19, 216.18, 204.11, 144.7; ἀνέχοιντο: ibid., 14, ed. Garofalo (1997) 98.4–5.

119 εὐαρέστησις: Anonymus Parisinus, *On Acute and Chronic Diseases*, 5, ed. Garofalo (1997) 36.2–3; εὐαρεστηθείη: ibid., 5, ed. Garofalo (1997) 32.18–19; εὐάρεστον ibid., 14, ed. Garofalo (1997) 98.5.

120 Anonymus Parisinus, *On Acute and Chronic Diseases*, 9, 12, ed. Garofalo (1997) 70.8–9, 88.2–3.

121 Scribonius Largus, *Medicinal Compositions*, Epistula 3, ed. Jouanna-Bouchet (2016) 2–3; [Hippocrates], *Praecepta*, Heiberg (1927) 32.5–13 = ed. Littré (1861) IX.258.6–15.

122 Anonymus Parisinus, *On Acute and Chronic Diseases*, 5, ed. Garofalo (1997) 36.2–3.

diseases and for determining the appropriate therapeutic measures.[123] Not all physicians accepted this theoretical framework and its practical implications, however. The Methodist school, for one, argued for a much simpler classification: diseases were either flux-related, or constriction-related, or a combination of both. Accordingly, treatments focused on either stopping the flux or releasing the constriction. Age, seasons and so forth, were of limited, if any, relevance.[124]

The Anonymous, for his part, rarely prescribes different treatments on account of seasons, age or gender differences. He refers to age differences only twice, both in the case of ileus. First, he instructs one to "bleed youth and those in their prime without delay, and old people too, if they can tolerate it, otherwise apply cupping-glasses…";[125] shortly later, he adds that in the case of pains "boys coming of age" (οἱ τελεώτεροι παῖδες) should be treated with an enema and cupping with scarification "if they tolerate it", whereas "older ones" (μείζονες) should be treated with drugs applied externally.[126] The distinction seems to reflect a general notion that younger, stronger people can better endure (their *dynamis* allows, so to speak) strong and invasive treatments. The treatment of women is distinguished five times. Three of these references are in cases of bladder problems (ulceration and haemorrhage): once he notes that "one must treat women with the uttermost care, for in them haemorrhage is very hard to stop" and twice he notes that women are "more suitable for injections" of particular drugs.[127] It is possible that the apparent anatomical differences in the case of the urine system called for different measures.[128] The genitalia are mentioned in the case of spasm, where it is noted that "with female (patients) in addition to the aforementioned (measures) we will also pay attention to the feminine parts (τὰ γυναικεῖα)".[129] The meaning of this statement is ambiguous – it may refer to ensuring that the womb does not get infected (as AP notes regarding the

123 The Hippocratic work *On Airs, Waters, and Places* is the most well-known example for promoting these kinds of classifications, but these ideas were widely discussed in our sources. We find in Galen the most systematic consideration of these criteria in the clinical context; although he acknowledges that a single theory and generalisation cannot apply for all cases, he argues nonetheless that when dealing with a single case one must determine the appropriate cause of treatment based on a complex system of classifications ("division" – διαίρεσις) and "qualifications" (διορισμοί), which include age, gender, climate and so forth – for discussion see van der Eijk (2008: 288–97).

124 See Frede (1987: 268) and the references there.

125 Anonymus Parisinus, *On Acute and Chronic Diseases*, 14, ed. Garofalo (1997) 96.12–14.

126 Anonymus Parisinus, *On Acute and Chronic Diseases*, 14, ed. Garofalo (1997) 98.8–12.

127 Anonymus Parisinus, *On Acute and Chronic Diseases*, 38, ed. Garofalo (1997) 198.24–5 (haemorrhage); ibid., 39, ed. Garofalo (1997) 204.6 and 204.12–13 (ulcer).

128 In the section on the signs of bladder ulceration, the penis is mentioned, but not women: "when the (painful) sensation is near the penis itself, the ulcer is around this part" – Anonymus Parisinus, *On Acute and Chronic Diseases*, 39, ed. Garofalo (1997) 202.8–9.

129 Anonymus Parisinus, *On Acute and Chronic Diseases*, 7, ed. Garofalo (1997) 56.20–1.

bladder shortly before); but it is perhaps a reference to observing patients' menstruation or dealing with menstrual bleeding in a state in which they were unable to do so themselves. Finally, in women suffering from epilepsy, cupping-glasses should be applied also to the lower abdomen and the groin, in addition to the back, loins, chest and upper abdomen – the reason remains unexplained.[130] References to the seasons are just as sporadic, and they mostly refer to the need to adapt the clothing or surroundings of the patient to the temperature.[131] The one exception is the reference to a different number of meals in the winter in the case of dropsy.[132]

All in all, these criteria do not constitute a central consideration guiding the physician through the complex, multifaceted conditions he encounters. These references are very "practical" in nature, rather than theoretical. They do not reflect an underlying theoretical classification and conceptualisation of these groups in qualitative terms (such as their relative wetness or natural abundance of bile which then indicatively determines the kind of treatment suitable for them).[133] The considerations are more general and "intuitive", aimed at ensuring, for instance, that the patient is strong enough or dressed appropriately for the climate.

5 The anonymous and the medical schools

In the course of this chapter I have noted some cases of similarity between the ideas or approach of the Anonymous and those of certain medical groups or schools. The limited clinical relevance he assigns seasons, age and gender, resemble the ideas of the Methodists. His reference to cohesive causes of disease, his use of the term "affected part", and his consideration of the quality and tension of pneuma as a cause of disease and an object of treatment – all point to an acquaintance with writings and theories of Pneumatist physicians (who were themselves "Rational" physicians in many aspects).[134] He refers often to humours, pneuma, and other "theoretical",

130 Anonymus Parisinus, *On Acute and Chronic Diseases*, 3, ed. Garofalo (1997) 22.16.

131 Anonymus Parisinus, *On Acute and Chronic Diseases*, 45, ed. Garofalo (1997) 228.28–30, with regard to the need of clothes and staying warm; cf. ibid., 45, ed. Garofalo (1997) 228.21–4 – kind of pillows and posture to use in winter and the converse case of preventing the patient suffering from the heat in warm seasons (ibid., 10, 45 ed. Garofalo (1997) 80.14–16, 228.12–15). In the latter passage (concerning dropsy), AP notes that "chilling and inactivity" (ψύξις καὶ ἀργία) are harmful to the patients.

132 Anonymus Parisinus, *On Acute and Chronic Diseases*, 45, ed. Garofalo (1997) 230.18–19.

133 AP refers once to patients' "mixture" (σύγκρασις): he notes that patients suffering from dropsy who are "of a more delicate mixture" (οἱ τρυφερωτέρας συγκράσεως ὄντες) faint on account of thirst (Anonymus Parisinus, *On Acute and Chronic Diseases*, 45, ed. Garofalo (1997) 230.11–12).

134 See also his remark that καχεξία ("bad state") concerns "the solids, liquids, and pneumata" (Anonymus Parisinus, *On Acute and Chronic Diseases*, 44, ed. Garofalo (1997) 222.6–7); for the possible Pneumatist connection of this triad, see Coughlin and Lewis (forthcoming).

non-empirical concepts and the only physicians he mentions by name are ones associated with the Rational school. At the same time, he offers little in the form of theoretical thought and discussion: his diagnostic and therapeutic sections are mostly practical instructions which follow the diverse "empirical" realities physicians have and might experience, with little or no reference to theoretical explanations or considerations.

This brief summary suffices to demonstrate the difficulty and futility of trying to identify the Anonymous' affiliation. The author himself does not mention any physician known as Pneumatist, Methodist or Empiricist, nor does he refer to himself as belonging to any of these groups. Indeed, he does not mention any medical "school" – not even the "Rational" school with which the ancient sources traditionally associate the physicians he mentions. This may mean he was not at all interested in affiliating himself with any school or medical method or theory, whether since the question was irrelevant to him and his audience, or since the answer was obvious to them from his writing. Be the reason as it may, the lack of any statement on the Anonymous' behalf and the circumstantial evidence connecting him with the different groups, mean that labelling him as a physician of a particular school is circular and redundant – it will not contribute to our historical understanding of that school and its opinions, beyond what we know already, that is, beyond what has led us to make the connection with the Anonymous in the first place.[135] Nor will it allow us to better understand the Anonymous himself. The importance of the Anonymous does not lie in labelling him as a physician of a certain school in order to learn about that group, but rather in his treatise being a rare example for medical concerns and a clinical approach at the turn of the first millennium and important evidence for the challenges physicians faced in this period. It testifies, moreover, to the fact that the medical schools and the rivalry between them were only part of the medical scene and activity in Rome. One could practise and write about medicine without branding oneself as a follower of a certain group or arguing for their theory and method, or against those of other groups.

6 Conclusion

This work on diseases seems to be intended as a practical work for those practising medicine, a "handbook", so to speak; it does not aspire to instruct in medical theory or argue for overarching ideas concerning disease or the body, or concerning drugs and other treatments. The author demonstrates an acquaintance with technical causal, anatomical and diagnostic terminology known from later periods. He has a doxographic interest which sets four much earlier physicians at the centre of aetiological debates. The

135 On this methodological point see Coughlin and Lewis (forthcoming).

author clearly thinks this is knowledge one should have, although he rarely explains its relevance to the practical diagnosis and treatment. The sections concerning diagnosis and treatment are those most relevant to the physician's practical work and they are the richest sections. What lends authority to the information and guidelines they relate is not the name of an esteemed physician, but the minute details, which follow closely the phenomena physicians will encounter. These detailed descriptions are what would have made this work so useful: they allowed physicians to navigate the multitude of phenomena and disease manifestations they encountered in their many patients and to identify the appropriate course of action. While presenting his readers with a rich arsenal of practical knowledge and experience, the Anonymous places the responsibility for choosing the appropriate method in the hands of the individual physician facing the individual case. This latitude or ambiguity is neither loose nor incoherent, but anchored in a perception which allows the physician to continuously check himself, namely ensuring that the patient is comfortable and reacting well to the treatment. This will not prevent mistakes, but might prevent the physician from continuing blindly with a certain treatment simply because it was prescribed by an earlier authority or was useful on another patient.

The above analysis is by no means exhaustive. It has brought to light some important aspects in the Anonymous' method, but there is still much to be done, as regards, for instance, the rich therapeutic and diagnostic information the treatise contains, the wide use of *materia medica* it describes and a comparison in style and content to other authors from the period.

Bibliography

Bekker, I. (ed.). 1831. *Aristotelis opera*. 2 vols. Berlin: Georgium Reimerum, ex officina academica.

Bendz, G. (ed.). 1990–3. *Caelius Aurelianus*. 2 vols. Berlin: Akademie-Verlag.

Bouras-Vallianatos, P. 2014. 'Clinical Experience in Late Antiquity: Alexander of Tralles and the Therapy of Epilepsy', *Medical History* 58: 337–53.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59: 275–326.

Coughlin, S. and Lewis, O. Forthcoming. 'What was Pneumatist about the Pneumatist School?' in S. Coughlin, S. D. Leith and O. Lewis (eds.), *The Concept of Pneuma after Aristotle*. Berlin: Edition Topoi.

Craik, E. M. 2015. *The 'Hippocratic' Corpus: Content and Context*. Abingdon, Oxon and New York: Routledge.

Daremberg, C. and Ruelle, É. (eds.). 1879. *Oeuvres de Rufus d'Éphèse*. Paris: Impr. nationale.

Deichgraber, K. 1950. 'Professio Medici. Zum Vorwort des Scribonius Largus', *Akademie der Wissenschaften und der Literatur/Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse* 9: 856–79.

Ecca, G. 2015. 'The *Μισθάριον* in the *Praecepta*: The Medical Fee and Its Impact on the Patient', in G. Petridou and C. Thumiger (eds.), *Homo Patiens: Approaches to the Patient in the Ancient World*. Leiden: Brill, 325–44.

Frede, M. 1980. 'The Original Notion of Cause', in M. Schofield, M. Burnyeat and J. Barnes (eds.), *Doubt and Dogmatism: Studies in Hellenistic Epistemology*. Oxford: Oxford University Press, 217–49.

Frede, M. 1987. 'The Method of the So-Called Methodical School of Medicine', in M. Frede (ed.), *Essays in Ancient Philosophy*. Minneapolis, MN: University of Minnesota Press, 261–78.

Fuchs, R. (ed.). 1894. 'Anecdota medica Graeca', *Rheinisches Museum für Philologie* 49: 532–58.

Fuchs, R. (ed.). 1895. 'Anecdota medica Graeca. Nachtrag zum cod. Paris. suppl. Graec 636 s. XVII der cod. Paris. Graec. 2324 s. XVI', *Rheinisches Museum für Philologie* 50: 576–99.

Fuchs, R. 1900. 'De anonymo quern putant esse Soranum', in W. von Hartel (ed.), *Festschrift für Johannes Vahlen*. Berlin: Reimer, 141–48.

Fuchs, R. 1903. 'Aus Themisons Werk über die acuten und chronischen Krankheiten', *Rheinisches Museum für Philologie* 58: 67–114.

Fürst von Lieven, A. and Humar, M. 2017. '*Anatomai*: Die Bilder hinter den zoologischen Schriften des Aristoteles', in J. Althoff, S. Föllinger and G. Wöhrle (eds.), *Antike Naturwissenschaft und ihre Rezeption XXVII*. Trier: Wissenschaftlicher Verlag, 71–140.

García-Ballester, L. 1994. 'Galen as a Clinician: His Methods in Diagnosis', in W. Haase and H. Temporini (eds.), *Aufstieg und Niedergang der römischen Welt* 2.37.2. Berlin and New York: W. de Gruyter, 1636–71.

Garofalo, I. 1992. 'Prolegomena all'edizione dell'Anonymus Parisinus Darembergii siue Fuchsii', in A. Garzya (ed.), *Tradizione e ecdotica dei testi medici tardoantichi e bizantini. Atti del Convegno Internazionale, Anacapri 20–31 ottobre 1990*. Naples: D'Auria, 91–106.

Garofalo, I. (ed.). 1997. *Anonymi medici De morbis acutis et chroniis*. Leiden: Brill.

Gärtner, F. (ed.). 2015. *Galen, De locis affectis I–II*. Berlin: De Gruyter [C.M.G V.6,1,1].

Gelpke, A. 1987. *Das Konzept des erkrankten Ortes in Galens "De locis affectis"*. Zurich: Juris Druck.

Gill, C. 2018. 'Philosophical Psychological Therapy: Did It Have Any Impact on Medical Practice?' in P. N. Singer and C. Thumiger (eds.), *Mental Illness in Ancient Medicine: From Celsus to Paul of Aegina*. Leiden: Brill, 365–80.

Glucker, J. 1978. *Antiochus and the Late Academy*. Göttingen: Vandenhoeck and Ruprecht.

Gundert, B. 1992. 'Parts and their Roles in Hippocratic Medicine', *Isis* 83.3: 453–65.

Hankinson, R. J. 1987. 'Causes and Empiricism: A Problem in the Interpretation of Later Greek Medical Method', *Phronesis* 32.3: 329–48.

Hankinson, R. J. (ed.). 1998. *Galen: On Antecedent Causes*. Cambridge: Cambridge University Press.

Heiberg, J. L. (ed.). 1927. *Hippocrates*. Leipzig and Berlin: Teubner [C.M.G I.1].

Jouanna, J. 1999. *Hippocrates*. Baltimore, MD: Johns Hopkins University Press.

Jouanna-Bouchet, J. (ed.). 2016. *Scribonius Largus*. Paris: Les Belles Lettres.

King, D. 2018. *Experiencing Pain in Imperial Greek Culture*. Oxford: Oxford University Press.

Kühn, C. G. (ed.). 1821–33. *Claudii Galeni opera omnia*. 20 vols. in 22. Leipzig: Knobloch.

Leith, D. 2016. 'How Popular Were the Medical Sects?' in W. V. Harris (ed.), *Popular Medicine in Graeco-Roman Antiquity: Explorations*. Leiden and Boston: Brill, 231–50.

Letts, M. 2015. 'Questioning the Patient, Questioning Hippocrates: Rufus of Ephesus and the Pursuit of Knowledge', in G. Petridou and C. Thumiger (eds.), *Homo Patiens: Approaches to the Patient in the Ancient World*. Leiden: Brill, 81–103.

Lewis, O. 2017. *Praxagoras of Cos on Arteries Pulse and Pneuma*: *Fragments and Interpretation*. Leiden: Brill.

Lewis, O. 2018. 'Archigenes of Apamea's Treatment of Mental Diseases', in P. N. Singer and C. Thumiger (eds.), *Mental Diseases in Ancient Medicine*. Leiden: Brill, 143–75.

Littré, É. (ed.). 1839–61. *Oeuvres complètes d'Hippocrate: traduction nouvelle avec le texte grec en regard, collationné sur les manuscrits et toutes les éditions; accompagnée d'une introduction, de commentaires médicaux, de variantes et de notes philologiques; suivie d'une table générale des matières*. 10 vols. Paris: J.-B. Baillière.

Lloyd, G. E. R. 2009. 'Galen's Un-Hippocratic Case-Studies', in C. Gill and T. Whitmarsh (eds.), *Galen and the World of Knowledge*. Cambridge: Cambridge University Press, 115–31.

Lyons, M. (ed.). 1969. *Galeni De causis contentivis libelli versio Arabica*. Berlin: Akademie-Verlag [C.M.G Suppl. Or. II].

McDonald, G. C. 2012. 'The Body and Space the "locus affectus" in Ancient Medical Theories of Disease', in P. A. Baker, H. Nijdam and K. van 't Land (eds.), *Medicine and Space: Body, Surroundings and Borders in Antiquity and the Middle Ages*. Leiden: Brill, 61–83.

Mansfeld, J. 1989. 'Chrysippus and the *Placita*', *Phronesis* 34: 311–42.

Mansfeld, J. 1990. 'Doxography and Dialectic. The Sitz im Leben of the "Placita"', in W. Haase (ed.), *Aufstieg und Niedergang der römischen Welt* 2.36.4. Berlin and New York: W. de Gruyter, 3056–230.

Mattern, S. 2008. *Galen and the Rhetoric of Healing*. Baltimore, MD: Johns Hopkins University Press.

Mudry, P. 1997. 'Éthique et médecine à Rome: la préface de Scribonius Longus ou l'affirmation d'une singularité', in H. Flashar and J. Jouanna (eds.), *Médecine et morale dans l'antiquité*. Geneva: Foundation Hardt, 297–322.

Nickel, D. (ed.). 1971. *Galeni De uteri dissectione*. Berlin: Akademie-Verlag [CMG V,2,1].

Nutton, V. 1991. 'Style and context in the Method of Healing', in R. J. During and F. Kudlien (eds.), *Galen's Method of Healing: Proceedings of the 1982 Galen Symposium*. Leiden: Brill, 1–25.

Petit, C. (ed.). 2009. *Galien: Le médecin. Introduction*. Paris: Les Belles Lettres.

Porter, A. J. 2015. 'Compassion in Soranus' *Gynecology* and Caelius Aurelianus' *On Chronic Diseases*', in G. Petridou and C. Thumiger (eds.), *Homo Patiens: Approaches to the Patient in the Ancient World*. Leiden: Brill, 285–303.

Roby, C. 2015. 'Galen on the Patient's Role in Pain Diagnosis: Sensation, Consensus, and Metaphor', in G. Petridou and C. Thumiger (eds.), *Homo Patiens: Approaches to the Patient in the Ancient World*. Leiden: Brill, 304–22.

Roselli, A. 2015. 'Come dire il dolore. Galeno e il linguaggio dei medici e dei malati', *Antiquorum Philosophia* 9: 55–68.

Roselli, A. 2018. 'Nosology', in P. E. Pormann (ed.), *The Cambridge Companion to Hippocrates*. Cambridge: Cambridge University Press, 180–99.

Skoda, F. 1988. *Médecine ancienne et métaphore. Le vocabulaire de l'anatomie et de la pathologie en grec ancien*. Paris: Peeters/Selaf.

Von Staden, H. 1982. 'Hairesis and Heresy: The Case of the *haireseis iatrikai*', in B. F. Meyer and E. P. Sanders (eds.), *Jewish and Christian Self-definition*, vol. 3. London: SCM Press, 76–100.

Thumiger, C. 2016. 'Fear, Hope and the Definition of Hippocratic Medicine', in W. V. Harris (ed.), *Popular Medicine in Graeco-Roman Antiquity: Explorations*. Leiden: Brill, 198–214.

Thumiger, C. 2017. *A History of the Mind and Mental Health in Classical Greek Medical Thought*. Cambridge: Cambridge University Press.

Thumiger, C. 2018. 'Doctors and Patients', in P. E. Pormann (ed.), *The Cambridge Companion to Hippocrates*. Cambridge: Cambridge University Press, 263–91.

van der Eijk, P. J. 1998. 'Quelques remarques sur la méthode doxographique de Caelius Aurélien', in C. Deroux (ed.), *Maladie et maladies dans les textes latins antiques et médiévaux*. Brussels: Collection Latomus, 342–53.

van der Eijk, P. J. 1999a. 'The Anonymus Parisinus and the Doctrines of the "Ancients"', in P. J. van der Eijk (ed.), *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*. Leiden: Brill, 295–331.

van der Eijk, P. J. 1999b. 'Some Methodological Issues in Collecting the Fragments of Diocles of Carystus', in A. Garzya (ed.), *I testi medici greci. Tradizione e ecdotica*. Naples: D'Auria Editore, 125–56.

van der Eijk, P. J. 2005. 'Galen's Use of the Concept of "Qualified Experience" in His Dietetic and Pharmacological Works', in P. J. van der Eijk (ed.), *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health and Disease*. Cambridge: Cambridge University Press, 279–98 [originally published under the same title in: A. Debru (ed.), *Galen on Pharmacology. Philosophy, History and Medicine*. Leiden: Brill, 35–57.].

van der Eijk, P. J. 2008. 'Therapeutics', in R. J. Hankinson (ed.), *The Cambridge Companion to Galen*. Cambridge: Cambridge University Press, 283–303.

van der Eijk, P. J. 2013. 'Cure and (In)curability of Mental Disorders in Ancient Medical and Philosophical Thought', in W. V. Harris (ed.), *Mental Disorders in the Classical World*. Leiden: Brill, 307–38.

Wellmann, M. 1901. 'Zu den ΑΙΤΙΟΛΟΓΟΥΜΕΝΑ des Soran', *Hermes* 36.1: 140–55.

Wellmann, M. 1905. 'Herodots Werk ΠΕΡΙ ΤΩΝ ΟΞΕΩΝ ΚΑΙ ΧΡΟΝΙΩΝ ΝΟΣΗΜΑΤΩΝ', *Hermes* 40.4: 580–604.

Wellmann, M. 1913. 'Zu Herodots Shcrift ΠΕΡΙ ΤΩΝ ΟΞΕΩΝ ΚΑΙ ΧΡΟΝΙΩΝ ΝΟΣΗΜΑΤΩΝ', *Hermes* 48.1: 141–3.

3 Wellcomensis MS.MSL.14 as a therapeutic handbook

Barbara Zipser

At first sight, MS.MSL.14 seems rather inconspicuous.[1] It is a very small pocket-sized book which has obviously been handled and perused extensively. A number of pages at the end of the volume were added at a later time. The book was also exposed to water, which deleted text around the edges, but, in most cases, only over an area of just about one square centimetre. Many of the pages are torn, and sometimes held together by rough, thick thread, or simply missing. But it is precisely this fact that makes the book of particular interest. It is not a scholarly copy that was preserved in a pristine state in an ivory tower such as a major national library. Rather, it was a book that had been used in medical practice.

The book was all but forgotten in the centuries that followed, but over recent years been the subject of several studies. It was catalogued by Petros Bouras-Vallianatos[2] and its provenance has been described by Vivian Nutton and myself.[3] Later on, I also analysed its thematic structure and edited some annotations in invisible ink.[4] The manuscript was also a key witness for my first edition of John Archiatros' *Iatrosophion*.[5] Yet, there is a middle section of the book that still needs further scholarly attention, which is the topic of this paper.

Here is a very rough summary of the contents of the main part of MS. MSL.14, omitting the sheets of paper that were added later at the end of the book (i.e. pp. 272–317):[6]

1. Ps.-Hippocrates, *Letter to King Ptolemy On the Nature of Man*, p. 1, l. 1–p. 12, l. 12.

1 Some of the material used for this paper was compiled during my postdoctoral fellowship at the Wellcome Trust Centre at UCL (072287).

2 Bouras-Vallianatos (2015: 283–6).

3 Nutton and Zipser (2010).

4 Zipser (2013)

5 Zipser (2009).

6 For further bibliography, see Nutton and Zipser (2010) and Bouras-Vallianatos (2015: 286).

2. Ps.-Hippocrates, *On the Human Body and Conception*, p. 12, l. 12–p. 14, l. 19.
3. Brief text on bloodletting, p. 14, l. 19–p. 16, l. 19.
4. Brief text on conception, p. 17, l. 1–p. 18, l. 16.
5. Collection of remedies, p. 18, l. 17–p. 34, l. 17.
6. Ps.-Hippocrates, *Sayings about Life and Death*, p. 34, l. 17–p. 44, l. 4.[7]
7. Ps.-Esdras, *On Illuminating Days*, p. 44, l. 4–p, 46, l. 5.
8. Compilation of recipes, p. 46, l. 6–p. 76, l. 14.
9. A therapeutic text, in part consistent with John Archiatros, *Iatrosophion*, p. 76, l. 14– p. 81.
10. Collection of remedies, pp. 84–107.
11. John Archiatros, *Iatrosophion*, pp. 122–3, 120–1, 126–7, 124–5, 128–271, 82–3.

The manuscript has a clearly defined structure, with items one to seven on the first 46 pages presenting introductory material, including a substantial proportion of Pseudo-Hippocratic content. This section was probably copied in its entirety from another source.[8] It is followed by 225 pages of therapeutic content with a substantial part of the content consisting of recipes. Such a structure would make sense, as it creates a book that contains all the basics, albeit very briefly, and then concentrates on the subject of treating patients.

However, the internal structure of the first, introductory part and the second, therapeutic one could not be more different, as the latter is rather poorly structured: some text appears twice and at least one block of text does not seem to have a coherent structure. Moreover, item number 11 on the list is written in the Greek vernacular, which is not commonly used in writing.

At first sight, it seems somewhat puzzling that a scribe would go through the very considerable effort of including the same content twice while aiming to produce a book that is intent on being concise and comprehensive at the same time. After all, there is no logical reason why someone would produce a codex this small, which is very inconvenient to read, other than portability. Or to put it another way, if someone wanted to compile a book that a physician or a traveller could carry with them with ease, in order to include all the relevant content one might need, would he not ensure that the available space was managed more efficiently?

The obvious answer would be that this duplication was a mistake – i.e. a scribe not noticing that he was essentially copying the same text twice. This would also make sense given that the shorter item, i.e. item nine, comes first. By the time the scribe reached the longer version of the text in their model, they would already have copied the shorter one, and there

7 This item also includes a brief collection of remedies, pp. 41–4.
8 Nutton and Zipser (2010).

would be no way to undo this. Moreover, it would be useful to include all the additional content that could be found in the longer one.

But perhaps the answer is even more straightforward than that. It is actually quite common for manuscripts to contain two or more texts covering very similar content. An example from Wellcome Collection would be MS. MSL.60, which preserves a number of texts on urine diagnosis.[9] There is also a whole genre of medical manuscripts attributed to Byzantine *xenons*, in which one can find similar developments.[10]

Thus, even though room was scarce and book production expensive, there was a genre of literature that was thematic, in the same way as other volumes might contain works by a specific author. Having several texts on the same topic was apparently seen as better than having just one.

This appears to be the more likely explanation, even though MS.MSL.14 is just a small handbook. Here, literary convention was more important than practical use. The person who produced this handbook did not reinvent the way it was structured; he applied existing standards and just shrank everything to size. The advantage of such a practice would, of course, have been that the general structure of the volume would have made sense to anyone who might use it.

The next question to be addressed is whether the second, therapeutic half of the book appears in other witnesses. It is not recorded anywhere, but, given the current state of cataloguing, it is certainly possible that a previously unknown manuscript might emerge at some later date. However, some content from item nine appears independently in a number of other manuscripts, as it is very closely related to one of the so-called *xenonika*.[11] This could be a possible link, since the transmission of item 11 also seems to be somehow associated with the transmission of the *xenonika*.[12]

Here is a slightly standardised edition of the text.[13] Where the text has been edited by me, the manuscript reading can be found in brackets with the sigla L (=MS.MSL.14).

> [p. 76] εἰς ζέσιν κεφαλῆς.[14] ῥοδέλαιον (το δέλαιον L) βάλε καὶ ὀξείδιν (ὀξύδην L) καὶ χλίανέ τα. εἶτα ἄλειφε τὴν κεφαλὴν τοῦ ὅλην.
>
> On an overheated head. Take rose oil and vinegar and make it smooth. Then rub it on his entire head.

9 Bouras-Vallianatos (2015: 293).

10 See, for example, Bennett (2003: 243).

11 Bennett (2003: 406ff).

12 See n. 10.

13 As far as the spelling is concerned, I have followed the same principles as in my edition of John Archiatros. See Zipser (2009: 20ff).

14 Almost identical to John Archiatros, *Iatrosophion*, ω, 3, ed. Zipser (2009) 177.8–9. *Xenonika*, Rx4, ed. Bennett (2003) 409, contains the standard Greek version of the text.

ὅταν κνίθονται οἱ ὀφθαλμοί.[15] ἔπαρον φλούδιν ῥοδίνου ὀξύνου καὶ φρύξε το εἰς τὸν ἥλιον καὶ κοπάνισον καὶ βάλε καὶ κρασὶν καὶ τάρ [p. 77] αξέτο καὶ θές το.

When the eyes itch. Take the peel of a sour pomegranate and dry it in the sun and grind it up and also add wine and mix and apply it.

ὅταν ῥέει αἷμα ἀπὸ τὴν μύτην (μίτην L).[16] αὐγοῦ (ζυγοῦ L) φλοῖον καῦσας καὶ τρίψας καλῶς βάλε το εἰς καλάμην καὶ φύσα το. σινάπιν (συνάπην L) καὶ καρύδια (καρίδια L) ὀλίγα κοπάνισον μερέαν καὶ μερέαν καὶ αὐγοῦ ἄσπρον καὶ θὲς τὸ εἰς τὸν μέτωπον.

When blood flows from the nose. Burn the shell of an egg and grind it nicely and put it into a reed and blow it <into the nostril>. Grind mustard seeds and some walnuts one after the other and egg white and put it on the forehead.

ὀπον πτύει αἷμα.[17] κοπάνισον ἡδύοσμον καὶ τὸν ζωμὸν του σμίξον με τὸ ὀξείδιν (ὀξύδην L) ὀλίγον καὶ ἄς τὸ πίει.

When <someone> spits blood. Grind up mint and mix its juice with a little bit of vinegar and let him drink it.

πρὸς πόνον γλώσσης.[18] ἐλαίας φύλλα (φύλα L) μασσοῦ καὶ κράτει τὰ πολλὴν (πολὺν L) ὥραν εἰς τὴν γλώσσαν.

For pain in the tongue. Chew olive-tree leaves and hold them on the tongue for a long time.

εἰς ἔμφραξιν ὠτίων.[19] βάλε ἔψημα εἰς φλούδην αὐγοῦ καὶ θὲς τὸ εἰς τὸ καρβούνιν (καρβούνην L) καὶ ἄς χλινθῇ. εἶτα βάλλε εἰς τὸ ὠτίον. τρίψον κινάμωμον εἶτα ἔπαρον στυπτείαν καὶ βάλον κρόκον ὠοῦ, καὶ ἐπάνω τοῦ ὠοῦ τὸ κινάμωμον τριμμένον καὶ θές το.

For blocked ears. Put broth in an egg shell and put it on coals and let it get warm. Then put it into the ear. Grind cinnamon then take an astringent substance and add egg yolk, and also <add> ground cinnamon on top of the egg and apply it.

15 Coincides with parts of John Archiatros, *Iatrosophion*, ω, 5, ed. Zipser (2009) 178.10–11. It is a rephrased version of *Xenonika*, Rx9, ed. Bennett (2003) 411.

16 Coincides with parts of John Archiatros, *Iatrosophion*, ω, 7, ed. Zipser (2009) 179.5–9. *Xenonika*, Rx11, ed. Bennett (2003) 412, contains a similar text.

17 Mostly identical with John Archiatros, *Iatrosophion*, ω, 8, ed. Zipser (2009) 179.12–13. *Xenonika*, Rx14, ed. Bennett (2003) 413, is quite similar.

18 Mostly identical with John Archiatros, *Iatrosophion*, ω, 9, ed. Zipser (2009) 179.14–15. Very similar to *Xenonika*, Rx17, ed. Bennett (2003) 414.

19 Very similar to John Archiatros, *Iatrosophion*, ω, 15, ed. Zipser (2009) 182.3–8.

ὅταν ῥεύσιν αἷμα.[20] πράσου ζωμὸν ἔνσταζε εἰς τὸ ὠτίον. τρυγέαν (τριγέαν L) οἴνου τρίψον σμίξον με τὸ κρασὶν τὸ χλίον καὶ στα … [p. 78] εἰς τὸ ὠτίον.

When blood flows <from the ears>. Put drops of leek juice into the ear. Grind up the sediment of wine, mix it with warm wine and <drip it> into the ear.

πρὸς αἷμα ὅταν ῥέει ἀπὸ τῆς οὔλης.[21] τὰ φύλλα (φύλα L) τῆς ἐλαίας βράσας με τὸ νερὸν καὶ τὸν ζωμὸν ἐκείνων κράτει εἰς τὸ στόμα πολλὴν (πολὺν L) ὥραν. τῆς μυρσίνης (μυρσύνης L) τὰς κρουφὰς καὶ τριανταφύλλων (τριανταφύλων L) ἄνθος βάλων καὶ ὄξος καὶ κρασὶν ἃς βράσουν. καὶ τὸν ζωμὸν κράτει εἰς τὸ στόμα.

For bleeding gums. Boil the leaves of an olive tree with water and keep the decoction of it in the mouth for a long time. Put the shoots of myrtle and rose flowers in vinegar and wine and let it boil, and keep the decoction in the mouth.

πρὸς σαπημένα οὔλη.[22] κηκίδιν (κικίδην L) καὶ σμύρναν ποιήσας οἷον τὸ ἀλεύριν καὶ πάσας τὰ οὔλη. κρόκον καὶ τριανταφύλλων (τριανταφύλων L) ἄνθος ποίησον οἷον τὸ ἀλεύριν καὶ πάσσε (πάσσαι L) τὰ οὔλη. κρόκον κοπανίσας καὶ ἅλας ποίησον ὅμοιον ἀλεύρου. με τὸ μέλι σμίξας ἄλειφε.

For rotting gums. Make oak-gall and myrrh like flour and apply on the gums. Make saffron and rose flowers like flour and apply to the gums. Grind up saffron and salt and make it like flour. Mix with honey and apply.

ὅταν βρωμῇ τὸ στόμα.[23] στάχος βράσον με τὸ κρασὶν καὶ κράτει εἰς τὸ στόμα. στάχος μασοῦ τὸ πρωί. ῥόδα ξηρὰ καύσας καὶ ποιήσας οἷον ἀλεύριν τρίβε τοὺς ὀδόντας.

When the mouth has a bad odour. Boil base horehound with wine and apply to the mouth. Chew base horehound in the morning. Burn dried roses and make them like flour and rub on the teeth.

ὅπου πτύει αἷμα.[24] φλεβο[p. 79]τόμει αὐτὸν καὶ τοὺς πόδας καὶ τὰς χείρας καὶ ἄλειφε ἔλαιον παλαιόν. μαλία ἄπλητα βρέξε τα εἰς τὸ ὀξείδιν (ὀξύδην L) τὸ χλίον καὶ τὸ ῥοδέλαιον καὶ πυρίαζε τὸ στῆθος. βάτου φύλλα κοπάνισον καὶ τὸν ζωμὸν σμῖξε με τὸν βῶλον (βόλον L) τὸν τριμμένον (τριμένον L) καὶ πότισον αὐτόν. θὲς τὸ ἔμπλαστρον τὸ λεγόμενον δι᾽ ἰτέων εἰς τὸ στῆθος.

20 Very similar to John Archiatros, *Iatrosophion*, ω, 23, ed. Zipser (2009) 185.16–18.
21 Coincides with John Archiatros, *Iatrosophion*, ω, 30, ed. Zipser (2009) 189.16–19.
22 Coincides in part with John Archiatros, *Iatrosophion*, ω, 31, ed. Zipser (2009) 190.4–9.
23 Coincides with John Archiatros, *Iatrosophion*, ω, 34, ed. Zipser (2009) 191.10–15, but with some words transposed.
24 Coincides in part with John Archiatros, *Iatrosophion*, ω, 36, ed. Zipser (2009) 192.18–193.9.

Figure 3.1 Londiniensis Wellcomensis MS.MSL.14, pp. 77–8.
Photograph by Petros Bouras-Vallianatos.

When <the patient> spits blood. Bleed them from the feet and hands and anoint with old olive oil. Soak unwashed hair in warm vinegar and rose oil and apply as a vapour bath to the chest. Grind bramble leaves and mix the juice with ground earth and let him drink. Put the plaster that is called 'from willows' on <the patient's> chest.

ὅπου ξερᾷ εἴ τι φάγῃ.[25] ἀλώην (λώην L) μαστίχην στύρακαν λάδανον λίβανον ἀψινθέας σπόρον κοπάνισον ἔψησον ὀλίγον πολλά ὀλίγον. ἀλεύριν καθαροῦ σίτου καὶ οἰνάνθην καὶ οἴνου ὀλίγου ποίησον ἔμπλαστρον καὶ θὲς τὸ εἰς τὸ στῆθος τοῦ.

When someone vomits whatever he eats. Grind aloe, mastic, storax, ladanum, frankincense, wormwood and boil it a little <by which I mean> very little. Make a plaster from clean bread flour and vine flower and a little wine and put it on his chest.

25 Coincides largely with John Archiatros, *Iatrosophion*, ω, 38, ed. Zipser (2009) 193.21–4.

περὶ δυσεντερίας.[26] λημναίαν (λυμνέαν L) σφραγίδα ἃς τὴν πίνει τριμμένην (τριμένην L) με τὸ νερὸν τὸ χλίον. ποιήσας ἔμπλαστρον καὶ βάλε ἀλώην στγ β΄ λίβανον στγ β΄ καὶ ἔψημαν.

On dysentery. Let him drink Lemnian earth, ground up with warm water. Make a plaster and add two *stagia* of aloe, two *stagia* of frankincense, and broth.

ὅπου κατουροῦσι αἷμα.[27] φλεβοτόμει τούτους (τούτοις L) ἀπ᾽ ἀγκῶνος καθόλου φλέβα (φλε…. L) [p. 80]σπόρον πότισον μετ᾽ ὀξείδιν (ὀξύδην L) καὶ μέλι ὀλίγον. λαγωοῦ πυτίαν πότισον μετὰ ὀξείδιν (ὀξύδην L) καὶ μέλι ὀλίγον.

When they are urinating blood. Bleed them from the main vein on the elbow … seed let him drink with vinegar and a little honey. Drink hare's rennet with vinegar and a little honey.

πρὸς στραγγουρίαν.[28] στραγγουρία (ραγγουρία L) δὲ ἔνι ὅταν κατουρεῖ καὶ στάζει ὀλιγούτζικον μετὰ πόνου καὶ ἀνάγκης καὶ βίας. φλεβοτόμει δὲ τὴν καθόλου φλέβα. ἔπαρον τοῦ ἐχίνου τὸ δέρμα ἤτοι τὸ λεγόμενον σκανζόχοιρον καὶ θὲς τὸ εἰς τὰ καρβούνια τὰ ζωντανά. καὶ κάπνιζέ τον εἰς τὰ αἰδοῖα, ὅπου οὐ δύναται κατουρήσειν. ἡ δὲ τροφὴ αὐτοῦ ἃς ἔνι εὔχυμος ἤτοι κουβίδια λιθρινάρια ἀστακοὶ (στακοὶ L) καλαμάρια καβούρους ποταμίους καὶ πέστρουβας. θρύμβον παλαιὸν ἔψησον με τὸ κρασὶν τὸ παλαιόν. ἐξ αὐτοῦ δὲ πότισον κοχλιάρια δ΄. ῥεπάνια κοπάνισε χωρὶς τὰ φύλλα (φύλα L) τους. εἶτα βάλε τὸν ζωμὸν τους εἰς ζουκάλιον καὶ κρασὶν καὶ ἃς βράσουν. εἶτα σακέλλισον αὐτὰ [p. 81] δυνατὰ καὶ πότισον αὐτὸν ἡμέρας γ΄ καὶ κολοκύνθην (..οκίνθην L) ξηρὰν κοπάνισον οἷον τὸ ἀλεύριν ἶσα ἕνα κοχλιάριον καὶ πότιζε μετὰ κρύου (.ίου L) νεροῦ. δενδρολίβανον ἃς βράσῃ (βράσει L) με τὸ κρασὶν καὶ πότισον αὐτὸν καθ᾽ ἑκάστην ἡμέραν χλίον ἕως ἡμέρας ι΄.

On strangury. Strangury is when someone urinates and only drips a tiny amount with pain, urgency, and much effort. Bleed him from the main vein. Take the skin of a hedgehog, that is the so-called *skanzoxoiros* and put it on hot coals. And apply the vapour to the groin, where he cannot urinate. Let his diet be balanced, that is bullhead fish, common pandora, lobster, squid, freshwater crabs and trout. Boil old summer savoury with old wine. Let him drink four spoonfuls of it. Grind radishes without their leaves. Then pour the juice into a pot with wine and let it boil. Then pound them forcibly and let him drink it for three days. And grind one spoonful of dry pumpkin like flour and let him drink it with cold water. Boil rosemary with wine and let him drink it warm every day for ten days.

26 Coincides with John Archiatros, *Iatrosophion*, ω, 39, ed. Zipser (2009) 194.5–6, 195.3–4.
27 Coincides with John Archiatros, *Iatrosophion*, ω, 46, ed. Zipser (2009) 199.3–6.
28 Coincides largely with John Archiatros, *Iatrosophion*, ω, 47, ed. Zipser (2009) 199.7–200.4.

ὅπου κατουρεῖ τὰ ῥοῦχα.[29] πετεινοῦ γούργουρον καύσε τον καὶ ποίησον οἷον τὸ ἀλεύριν καὶ πότισον αὐτὸν τὸ πρωὶ νῆστιν μετὰ κρύου (κρίου L) ὕδατος. λαγωοῦ ὀρχίδια ξύσε τα με τὸ μαχαίριν (μαχέριν L) καὶ τὸ ψιλότερον πότισον με τὸν οἶνον τὸν χλίον. χοίρου φούσκαν ὅπου ἔχει τὸ κατούρημαν ταύτην καῦσε (καύσαι L) εἶτα κόψε αὐτὴν ὡς ἄλευριν καὶ πότισον με τὸ κρασὶν τὸ χλίον κατὰ πρωί.

When someone urinates in his clothes. Burn the throat of a cock and make it like flour and let him drink it with cold water in the morning having fasted. Scrape the testicles of a hare with a knife and let him drink the fine particles with warm wine. Burn the bladder of a pig – where it keeps the urine – and then pound it like flour and let him drink it with warm wine.

πρὸς φλεγμονὴν ἥπατος τὸ λεγόμενον συκότιν (συκότην L).[30] οὕτως (…τος) δὲ θέλεις νοήσειν

On inflammation of the liver, the so-called *sykotin*. You may recognise it like this.

As can easily be seen from the references in the footnotes, this text coincides in part with the vernacular version of John Archiatros, but it is much shorter. It does not contain any significant content that would not have been included in John's text. Some paragraphs also occur in a text associated with the *xenons*, as edited by David Bennett, however, the wording is not always exactly the same. Overall, it appears that the situation is comparable to that of the synoptic gospels: we know that there once was a common source which is today lost and then several intermediate stages of the transmission, but we do not have the evidence to reconstruct the exact dependencies.

For the second part of my paper, I would like to take a closer look at item ten on my list, which has not previously received any scholarly attention at all. The text starts and ends abruptly with pages missing or misplaced, so that we cannot be sure that this was indeed its original position in the codex.

These are the headings within the text in transcription:

ἕτερον πρὸς τὸ ἐξουρίσαι λίθον (another recipe on passing a kidney stone), p. 84;
περὶ τοῦ γνῶναι θάνατον (signs of <imminent> death), p. 84;
περὶ φθεῖρας (on lice), p. 85;
περὶ ψίλλ.ς (on fleas), p. 85;
πρὸς φεύγοντα (on a fugitive), p. 85;

29 Coincides largely with John Archiatros, *Iatrosophion*, ω, 48, ed. Zipser (2009) 200.5–11.
30 Coincides with John Archiatros, *Iatrosophion*, ω, 49, ed. Zipser (2009) 200.12–13.

γυνὴ εἰς τὸ ποιῆσαι παιδὶν (for a woman to produce a child), p. 85;
εἰς μεθύοντα (for someone who is drunk), p. 85;
εἰς γενῆσαι (on conceiving), p. 85;
ὑπνοτικόν (sleeping draught), p. 86;
ἀντιφάρμακον τῶν ἑρπετῶν πάντων (antidote for all snake <bites>), p. 86;
περὶ πόνον πλεύρου (pain in the ribs), p. 86;
περὶ τοῦ καυσομένου ὑπὸ δίψης (on excessive thirst), p. 87;
εἰς τὸ μὴ ἀποβάλλειν καρπὸν δένδρου (that fruit does not fall from a tree), p. 87;
περὶ ἀρρενος ἢ θύλεως (on how to recognise whether <a child will be> male or female), p. 87;
περὶ τριχοφυίας (on how to grow more hair), p. 87;
τοῦ γνῶναι κλέπτην (how to recognise a thief), p. 88;
περὶ τοῦ μὴ … πινᾶν (if someone does not…), p. 88;
blank line, heading missing, p. 89;
περὶ ἐξωχάδων (on external haemorrhoids), p. 89;
περὶ ἐσωχάδων (on internal haemorrhoids), p. 89;
περὶ στενώσεως καὶ φλεγμάτων ἐν τῷ στίθει (on tightness and phlegm in the chest), p. 89;
περὶ τοῦ γνῶναι εἴτε ἄρρεν ἐστὶν τὸ παιδίον εἴτε θῆλυ (on how to recognise whether a child is male or female), p. 90;
περὶ πόνον ἥπατος καὶ νεφρῶν (on pain in the liver and kidneys), p. 90;
περὶ τοῦ στῖσαι αἷμα ῥινὸς (on how to stop a nose bleed), p. 90;
ἐὰν πίνει ἄνθρωπος ἐβδέλανας (if someone swallows leeches), p. 91;
πρὸς πόνον λυγμοῦ (on a sore throat), p. 92;
ἐὰν καταπεῖ τις ὀστοῦν (if someone swallows a bone), p. 92;
εὐχὴ … πόνον ὀδόντων (prayer for toothache), p. 93;
εἰς πόνον ὀδόντων (on toothache), p. 94;
εὐχὴ ὁπότε κρατηθῇ τὸ ἄλογον διὰ φλεγμὸν οὔρου (prayer if a horse has phlegm in the urine), p. 94;
περὶ κορίδας (on bugs), p. 95;
περὶ ψίλους (on fleas), p. 95;
περὶ κοιμω..να (?), p. 95;
περὶ τοῦ μὴ ἀποθάνῃ βρέφος ἐν τῇ μήτρᾳ (so that a foetus does not die inside the womb), p. 95;
περὶ τοῖς ποσὶν (on feet), p. 95.

From this point onward, there are fewer clearly defined headings, as the focus shifts towards medication.

Even a brief look at the above list reveals that it is entirely chaotic. Only in four instances are paragraphs arranged in a thematic sequence: right at the start of the fragment, where 'another' remedy for kidney stones is mentioned, then the passages on external and internal haemorrhoids and finally two paragraphs on insects near the beginning and the end. Moreover, three chapters have no medical content: on a fugitive, on how to recognise a thief

and a treatment for fruit trees. One chapter deals with veterinary medicine, which is not usually covered in standard medical collections. The content of the chapters is sometimes similar in scope and vocabulary to John Archiatros' text or the text of the collection described above. However, a significant proportion is completely different, in that it is largely related to magic. On the whole, it is quite similar to the sheets of paper that were subsequently added to the codex, and also to some *iatrosophia* of the more disorganised type.[31]

As mentioned above, because of the damage to the codex we cannot be sure where these pages originally belonged. Generally speaking, there appears to have been a tendency for rough drafts or badly organised collections such as this to be added to the end of a therapeutic text.[32] Indeed this may have been the case here, as the end of John Archiatros' text is likewise missing from the codex.

To illustrate the content, style and scope of the text, see, for instance, this extract from page 85 of the codex:

> περὶ φθείρας. πήγανον κοπανίσας μετὰ ἐλαίου ἄλειφε.
>
> On lice. Grind rue with oil and apply.
>
> περὶ ψύλλης (ψίλλ.ς L). αἷμα μαυροῦ τράγου χρίσον τὸ φιλοκάλιν καὶ θὲς τοῦτο μέσον τοῦ οἴκου καὶ συνάγονται ὁμοῦ. καὶ τὸ πρωὶ μὴ φονεύσεις ἀλλὰ ῥίψον αὐτοὺς κατ' ἰδίαν.
>
> On fleas. Apply the blood of a black he-goat on a broom and put it in the middle of the house and they will congregate there. And in the morning you should not kill them but throw them out individually.
>
> πρὸς φεύγοντα. γράψων οὕτως. γεννηθήτω ἡ ὁδὸς αὐτοῦ σκότος καὶ ὀλίσθημα (.λίσθημα L). καὶ ἄγγελος κυρίου ἐκδιώκων αὐτὸν μιχαὴλ δίνη σε ῥαφαὴλ διώκει σε ἰσαὰκ δεσμεῖ σε (σ. L) ταχὺ ταχὺ ταχύ.
>
> On a fugitive. Write thus: Let his way be darkness and stumbling and may the angel of the Lord pursue him. May Michael strike you, Raphael hound you <and> Isaac bind you quickly, quickly, quickly.

The first paragraph contains a simple pharmaceutical treatment for a condition that is often mentioned in medical texts. It is rather brief, which makes it appear slightly out of place in a work by a late antique encyclopaedist

31 See Zipser (2019) for an in-depth discussion of the matter. See also Ieraci Bio (1982); Tselikas (1995); Garzya (2003); Touwaide (2007); Marchetti (2011); and Oberhelman (2015).

32 See, for instance, the original version of John Archiatros, *Iatrosophion*, ϰ, 184ff, ed. Zipser (2009) 156ff or in the transmission of Alexander of Tralles' *Therapeutics* in Florentinus Laurentianus gr. plut. 74.10 (fourteenth century), ff. 330r–344v. The same phenomenon can also be observed in other texts.

such as Paul of Aegina, but it would be perfectly consistent with the work of John Archiatros. That said, John's text does not mention this specific recipe for the treatment of head lice.

The next paragraph also covers a medical topic, describing a trap for fleas which uses blood as a bait and which seems quite sensible. However, the instruction to use blood from a black he-goat is clearly rooted in magic, and there is no mention of any more complex pharmacological treatment. The third paragraph is entirely of a magical nature, as it describes an amulet, including a curse. Moreover, it is clearly not a medical matter.

The remainder of the text is of a very similar nature, and one is left wondering how and why it was included in the codex at all. Given the length of the collection of paragraphs, it does not appear likely that these were originally notes made by previous owners that were added on some blank space in the manuscript and then copied by mistake. Someone must have made a conscious decision to copy the text and include it in a book. It is, however, quite possible that the text was originally noted down by a user on a quire of spare pages, which were then inserted into a volume that was subsequently used as a master copy, just as the final pages were later on inserted into MS.MSL.14.

But, in any case, the professional scribe who would later go on to produce MS.MSL.14, or the person who commissioned the book, decided to keep the collection as it stood, despite its obvious shortcomings. On the whole, this created a corpus of therapeutic texts of rather diverse scope. Of these, text eight would be by far the most sophisticated and polished. It contains recipes such as this one on p. 49 (in a slightly edited form, with the original manuscript readings in brackets):

> Σκευασία (Σ…… L) διὰ καλαμίνθης. πεπέρεως κοινοῦ οὐγγίας ς΄ καλαμίνθης οὐγγίαν α΄ γλήχωνος (γλίχωνος L) οὐγγίαν α s΄΄ πετροσελίνου οὐγγίαν α s΄΄ σελίνου σπέρματος στγ γ΄ λιβιστικοῦ οὐγγίας β΄ σισέλεως μασαλεωιτκῆς οὐγγίαν α s΄΄ θύμου στγ γ΄ μέλιτος τὸ (τοῦ L) ἀρκοῦν.
>
> Recipe <for medication made> from mint: common pepper six ounces, mint one ounce, pennyroyal one and a half ounces, parsley one and a half ounces, celery seed three *stagia*, lovage two ounces, Massilian hartwort one and a half ounces, thyme three *stagia*, <and> a sufficient quantity of honey.

At the opposite end of the spectrum, text ten is clearly the least accomplished. Texts nine and eleven would be somewhere in between but closer to text eight in scope and content.

Overall, the therapeutic section of this manuscript caters for diverse audiences, ranging from those who would not necessarily have any medical training (see, for instance, the amulets and the content relating to magic) to skilled doctors, or pharmacists for that matter. Throughout the volume, the *materia medica* described is generally of a simpler nature than for instance in Galen or

Paul of Aegina, but still quite varied; the samples translated above are representative in that respect. What is most striking is that only very few imported goods such as cinnamon are mentioned. All of this gives a very coherent picture of the intended audience of the volume. The fact that the book had suffered serious wear and tear is entirely consistent with these findings.

Bibliography

Bennett, D. 2003. *Xenonika: Medical Texts Associated with Xenones in the Late Byzantine Period*. University of London: PhD thesis, available at https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.404391 (accessed, 23 May 2019).

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59.2: 275–326.

Garzya, A. 2003. 'Pour l'édition des iatrosophia démotiques', in A. Garzya and J. Jouanna (eds.), *Trasmissione e ecdotica dei testi medici greci*. Naples: D'Auria, 165–72.

Ieraci Bio, A. M. 1982. 'Testi Medici di Uso Strumentale', *Jahrbuch der Österreichischen Byzantinistik* 32: 33–43.

Marchetti, M. 2011. 'La trasmissione della cultura scientifica greca a Bisanzio. Codici di medicina e astronomia della Biblioteca Medicea Laurenziana', in M. Bernabò (ed.), *Voci dell'oriente. Miniature e testi classici da Bisanzio alla Biblioteca Medicea Laurenziana*. Florence: Polistampa, 121–6.

Nutton, V. and Zipser, B. 2010. 'MSL 14: A Wellcome Manuscript of a Medical Practitioner', in V. Boudon-Millot and A. Roselli (eds.), *L'ecdotique des textes médicaux grecs: réception et traduction*. Naples: D'Auria, 259–70.

Oberhelman, S. M. 2015. 'Towards a Typology of Byzantine and Post-Byzantine Healing Texts', *Athens Journal of Health* 2.2: 133–46.

Touwaide, A. 2007. 'Byzantine Hospital Manuals (*Iatrosophia*) as a Source for the Study of Therapeutics', in B. Bowers (ed.), *The Medieval Hospital and Medical Practice*. Aldershot: Ashgate, 147–73.

Tselikas, A. 1995. 'Τὰ ἑλληνικὰ γιατροσόφια: μια περιφρονημένη κατηγορία χειρογράφων', in Th. Diamantopoulos (ed.), *Ἰατρικὰ βυζαντινὰ χειρόγραφα*. Athens: Domos, 57–69.

Zipser, B. (ed.). 2009. *John the Physician's Therapeutics*: *A Medical Handbook in Vernacular Greek*. Leiden: Brill.

Zipser, B. 2013. 'Magic, Infidelity and Secret Annotations in a Cypriot Manuscript of the Early Fourteenth Century (Wellcome MSL 14)', in S. Oberhelman (ed.), *Dreams, Healing, and Medicine in Greece: From Antiquity to the Present*. Farnham: Ashgate, 251–66.

Zipser, B. 2019. 'Galen in Byzantine *iatrosophia*', in P. Bouras-Vallianatos and B. Zipser (eds.), *Brill's Companion to the Reception of Galen*. Leiden: Brill, 111–23.

4 The language of *iatrosophia*

A case-study of two manuscripts of the Library at Wellcome Collection (MS.4103 and MS.MSL.14)

Tina Lendari and Io Manolessou

The two manuscripts which form the object of this study belong, at least partially, to the category of *iatrosophia*, namely book collections of medical recipes taken from classical and Byzantine medical treatises, updated by new medical knowledge and new medical substances, and enriched with folk medicine.[1] Since most of these works are anonymous and of unknown provenance, linguistic research can contribute to their localisation and dating [Touwaide (2007: 149)], something which would considerably advance their study. This chapter should be seen as a contribution towards the study of iatrosophic texts from the viewpoint of linguistics. It targets two quite different manuscripts of the Library at Wellcome Collection: the first, longer, part examines the unpublished manuscript MS.4103, while the second examines the partially published MS.MSL.14; taken together, they could offer the interested reader a representative picture of the language of iatrosophic texts.

Relatively few vernacular iatrosophic texts have been published so far and the content and typology of such manuscripts has not been systematically investigated. Agamemnon Tselikas estimates the number of post-Byzantine manuscripts to around 150 (2018: 62), but we do not have detailed descriptions or editions for most of these. Moreover, although we now possess a census of medical manuscripts (Touwaide, 2016), it only covers in detail the period up to the Renaissance.[2] Apart from the interest such texts present for the history of science, folklore etc. [see e.g. Papadopoulos (2009)], they are also of considerable value as linguistic sources, especially in the case of areas and periods for which evidence

1 Definition on the basis of Ieraci Bio (1982); Touwaide (2007: 149); Oberhelman (2015: 133); Tselikas (1995, 2012: ς–θ, 2018).

2 Despite its claim that it covers only the period up to the fall of Constantinople, it does list a number of later manuscript (mainly *iatrosophia*) but does not aim at completeness; see Bouras-Vallianatos (2019: 159–160). Another extensive catalogue is provided by Karas (1994).

is either scant or difficult to locate, especially the late seventeenth and early eighteenth century. Furthermore, they are of special value to lexicography, as they cover semantic fields not commonly to be met with in other textual genres (terms for flora, fauna, materials, popular scientific terms for substances, phenomena, illnesses etc.). Linguistic studies on iatrosophic texts are few and far between, and mostly take the form of short descriptions accompanying an edition.[3] The reasons for this neglect are manifold, but are mostly connected with the overall disregard of this category of texts as objects of intensive academic inquiry: disparate and hard-to-locate editions, or editions that do not meet the necessary criteria of textual reliability. Also, such texts are difficult to date and locate geographically, thus lacking important metadata which would assist linguistic analysis. Finally, their very nature hampers their exploitation as linguistic sources, since they are by definition mixed, with a long and complex (even contaminated) tradition. This results in substantial variation of linguistic features, determined by several factors, the most significant of which are:[4]

- *linguistic register*: high archaising versus low vernacular register, and a whole range of intermediate gradations;
- *chronological period*: linguistic features 'artificially' surviving from as early as the Hellenistic period versus recent (sometimes as late as eighteenth or nineteenth-century) dialectal evolutions, again with a whole set of intermediate linguistic innovations;
- *geographical provenance*: linguistic features characteristic of different areas or dialects of the Greek-speaking world, with a high number of loanwords (Arabic, Turkish, Italian etc.), not always easily identifiable.

Due to such diachronic, diatopic, and diastratal variation, a unified linguistic treatment is difficult to achieve – not to mention that identifying which of the above factors is responsible for the observed variation is far from simple. For the evaluation of their relative contribution, apart from linguistic data pertaining to the history of Greek, it is necessary to consider extra-linguistic and pragmatic information pertaining to the potential sources of each section of the text, the stages of textual tradition etc.

3 See e.g. the linguistic commentaries in Minas (2012) and Oikonomou (1978). Fuller treatments can be found in Oikonomu-Agorastu (1982) and Alexopoulou (1998).

4 For the linguistic investigation of variation in Medieval and early modern texts, see Manolessou (2008).

1 MS.4103

Manuscript MS.4103 has been collated from the online digital images provided by the Library at Wellcome Collection.[5] There is no modern continuous numbering of folia, therefore the reference system is rather convoluted: there are different sequences of page numbers, by three hands, all three incomplete. The first (possibly by the scribe) uses Greek numerals in red ink, starting at λγ′ (suggesting that the first two quires are missing) and running through ρς′. The page numbering in Arabic numerals (placed in outer right and left margin position), in a hand similar to that of rest of the manuscript, begins at the first page from number 55 – an inconsistency that needs to be accounted for. There is also numbering in a third, later, hand, in different ink, almost always placed at the centre of the upper margin. The third set tries to complete the previous one, but in some cases numbers are repeated, inconsistent, or even erratic.

With the help of the existing description of the manuscript by Petros Bouras-Vallianatos (2015: 324–6), we have attempted a reconstruction of the likeliest sequence of the quires and folia, although the photographs do not always permit a good view of the rudimentary stitching of this codex.[6] Several of the loose gatherings and singletons can now be safely positioned and one can have a clearer picture of the continuity of the text and the arrangement of the contents.[7]

- λγ′-μη′= 55–70
- μθ′-νδ′ = 71–86
- [ξε′-ξς′ = 87–8] + ξζ′-οη′ = 89–100 + [οθ′-π′]. Outer bifolium missing
- [πα′-πβ′= 103–4] + 105–16 + [ρε′-ρς′]. Outer bifolium missing
- 119–34
- 135–50
- 151–64 + [165–6]. Last leaf missing
- [167–82]. Missing quire
- [183–4] + 185–96 + [197–8]. Outer bifolium missing
- [199–208] + 209–12 + [213–14]
- [215–30], [231–46], [247–62]. On the basis of its content, the singleton 4r–v could belong to one of the previous missing quires

5 Available at https://wellcomelibrary.org/item/b19693515#?c=0&m=0&s=0&cv=10&z=0.1614%2C0.2449%2C0.6649%2C0.4578 (accessed, 1 March 2019).

6 It is hoped that in the near future an autopsy (if the fragile condition of the manuscript permits) will be possible.

7 Angled brackets indicate missing folia or quires. Roman numerals represent the first set of Arabic numbering, italics the numbering by the second hand. In some cases, details that may seem redundant are provided for reasons of clarity, given the absence of modern foliation of the manuscript.

- 271, *272*, *273*, *274*, *275*, *276* + [one leaf missing] + 3r–v[8] + 277, *278*, *279*, 280, *281*, *282*[9] (this quire, according to the previous system of numbering should have been assigned page numbers *263–*278)[10]
- *279*bis, 280bis, 281bis, 282bis, 283–292, *277*bis, *278*bis
- *293–9*, 300–1, *302–9*, 310 (should have been assigned numbers 295–310, the 'correct' page numbers only reappearing at 300)
- 311–12, *313–19*, 320–1, *322–4* + 23r–v[11]
- [327–8] + 329–42. First leaf missing
- [343–58], [359–74]. Two missing quires
- *385*bis, *386*bis, *387*, 378 (wrong for 388), *379*, 380–1, 382, 383–6, + [387–90]
- [391–406]. Missing quire. The text contained in 6r-v possibly belonged here, judging by its content, which is relevant to that of the next quire
- [407–8] + 409–12 + 7r–v + 8r–v + 413–14 + 22r–v[12]
- [first leaf missing] + 15r–20v + 5r–v (reversed)[13]
- 24r–v (reversed) + 9r–14v + 21r–v.[14]

As stated above, MS.4103 contains a combination of *iatrosophia* (medical formularies), incantations,[15] prediction/divination methods, brontologia, seismologia, oneirokritika,[16] and other astrological

8 The singleton 3r–v can beyond doubt be placed here, as the last word of 3v: κοπανοισ‖ continues at 277.1 |μένα.

9 270 corrected to *282* by the second hand in different ink.

10 Wellcome online images nos 128–9, 132–43, 126–7.

11 F. 23r–v can be safely inserted here, as it continues the text of p. *324*.

12 F. 22r continues the text of p. 414.

13 The final word of f. 20v: λμονο‖ continues at f. 5r: ζούμι. The illustration in 5v [=Wellcome online image no. 234] (wind chart) is obviously related to the contents of ff. 10v–11r. See especially the rubrics of the illustration in the next page: 'αυτώς οφεομοίμοιτως αστίρ, εχει κ(αὶ) κάποιας ενεργίας οπου τας θέλουμεν γράψοι ἔνπρουσθεν' (referring directly to the text that will follow later), and 'Εδῶ γράφομεν τοιν ϊκωνα του ου(ραν)ού, ταν [sic] άστροιον οπου αστέρας δεν έχοι μώνων ενα οφεομοιμιτον ως καθῶς των βλέποιτε μέσα στα δῶδεκα ζῶδια κ(αὶ) με τους οκτω ανεμους'.

14 The text of f. 24 (=Wellcome online image no. 235) continues at f. 9r, while that of f. 14v at f. 21r.

15 The manuscript contains a rich variety of healing incantations/charms. Most belong to types known from diverse sources, among others collections of *iatrosophia*. For a definition of incantations, as well as sources, history, catalogues of texts, and relevant literature, see Zellmann-Rohrer (2016). For a small sample from MS.4103, see p. 105.

16 This section yielded one of the most unexpected findings: it contains, in fragmentary form, a vernacular paraphrase of the *Oneirocriticon of Achmet* [ed. Drexl (1925)], perhaps the best-known work of dream interpretation from Byzantium. Only one other vernacular reworking of *Achmet* is known so far, contained in the manuscript Metochion Panagiou Taphou 220 [Papadopoulos-Kerameus (1899: 189–90); Drexl (1925: xiii); Mavroudi (2002: 37–8)]. A comparison of the two texts, insofar as the preliminary examination of this fragile, unpreserved manuscript (now at the National Library of Greece) has permitted, shows that these two vernacular recastings have many linguistic differences and seem to be independent of one another. We now have evidence of *Achmet's* reception well into the seventeeth century – possibly to the beginning of the eighteenth (depending on the actual dating of MS.4103). The

texts.[17] It is in fact a very interesting miscellany of texts of different periods, content, style, and register, to a large extent unified linguistically through the compiler's native idiom; the variety of texts suggests that the compiler had access to multiple sources, both manuscript and printed.[18] As for the latter, it is evidenced by the paraphrasing, in several passages, of Agapios Landos' *Geoponikon* [first printed (1643); reprinted (1674), (1686), (1696), (1745), with further reprints in the eighteenth and nineteenth century; ed. Kostoula (1991)].[19]

As far as the dating and place of composition of the manuscript is concerned, Bouras-Vallianatos (2015: 324) tentatively places it in the late seventeenth century on the basis of the lunar tables (pp. 142–3), which cover the years 1697–715. According to Tselikas, the handwriting and general linguistic profile of the text are more congruent with a dating in the early eighteenth century,[20] and present similarities with a body of iatrosophic literature compiled in Epirus and Central Greece (Sterea Ellas), especially the area of Agrapha, the homeland of a renowned physician and medical author, Nikolaos Hieropais.[21] Further details for its spatio-temporal location based on linguistic criteria will be discussed below.

1.1 MS.4013 as an object of linguistic study: general characteristics

Turning now to the language of MS.4103, the basic facts have already been laid out: on the surface, it is a text produced approximately in the late

edition of the passages from *Achmet's* paraphrase in MS.4103 is under preparation for publication.

17 Space limitations do not allow us to provide here a full listing of headings/chapters and commentary on the contents, related texts, and editions. The present study is based on a full diplomatic transcription of the text, based on the digitised photographs published online by the Library at Wellcome Collection. The examples and excerpts listed in the linguistic description to follow are orthographically normalised. We were obliged to use a rather unorthodox reference system, because there is no modern continuous numbering/foliation of the manuscript, therefore the conventional system by folio number, recto-verso, could not be applied. The online photographs are presented according to two systems: a) by page numbers of the manuscript (though several folia and gatherings have no reference number), and b) by image number. We have used a combination of both so that textual references are easier to locate. Therefore, when the page reference is unambiguous, we provide a simple page and line reference, e.g. 55.3. In cases where the reader may be confused by repeated or erroneous page numbers, or may find it difficult to identify the page in question (e.g. one of the loose folia), we have devised a combination of page number or folio number, followed by image number (in parenthesis, noted as W), and line number, e.g. 13r(W274).10.

18 Many parallel or related texts were identified in manuscript sources, which we hope to present in a future, full edition.

19 See p. 94 for an illustrative excerpt.

20 Personal communication. We find this opportunity to express our sincere gratitude to Agamemnon Tselikas for his bibliographic assistance and invaluable advice.

21 Tselikas and Ilioudis (1996, 1997). For Nikolaos Hieropais, see also Chatzopoulou (2018).

seventeenth to early eighteenth century, written in some regional form of vernacular Greek, but in point of fact it is a compilation of texts belonging to different genres, periods, and areas, and therefore non-systematic variation is its foremost linguistic characteristic. The variation is apparent in all levels of linguistic analysis, i.e. phonology, morphology, syntax, and lexicon.

In phonology, the most evident, indeed striking, characteristic is the variable realisation of the so-called 'northern vocalism', an innovative dialectal phenomenon affecting the vowel system, which consists in the realisation of unstressed [o] and [e] as [u] and [i] respectively, e.g. βράσε~βράσι, ἀνακάτωσον~ἀνακάτουσον. This phenomenon will be discussed at greater length as it is crucial for the geographical localisation and dating of the manuscript. Phonological variability is also apparent in the non-regular realisation of many other phonetic changes, some of which are typical of later Greek, such as the dissimilation of stops and fricatives in consonant clusters (e.g. ὀκτώ~ὀχτώ, ἑπτά~ἑφτά) and the deletion of unstressed initial vowels (e.g. ὁμοιάζει~μοιάζον, ἡμέρα~μέρα, ἀμυγδαλόλαδον~μυγδαλόλαδον).

In the domain of morphology, the text of our manuscript presents older inflectional suffixes alongside innovative ones, both in nominal and in verbal inflection, e.g. ἡμέρας~ἡμέρες, δαιμοναρέας~δαιμοναριᾶς, or βράσον~βράσε, ἔχουσιν~ἔχουν.

Syntax is mostly paratactic and repetitive, devoid of complex clauses and constructions, and therefore not allowing much room for variation. However, depending mainly on the style and genre of the source text copied in each section of the manuscript, one may observe variation in domains such as the realisation of the infinitive (retention versus replacement with νὰ-clauses, e.g. δῶσι νὰ φάγει ~ δὸς γλείφειν), or of the indirect object (retention of the dative versus replacement with the genitive or the accusative case, e.g. εἶπεν αὐτῷ ~ δὸς τοῦ πάσχοντος ~ δῶσι τον νὰ φάγει).

In the vocabulary, variation is evident in the use of alternative forms of the same word, or synonyms, belonging to different registers, such as ὄξος~ξίδι, τοὺς ὀδόντας~τὰ δόντια, ρόδα~τραντάφυλλα.

The linguistic evaluation of MS.4103 is inhibited by the erratic spelling: the text does not adhere to a consistent orthographic system and the accentuation is equally inconsistent, frequently absent, or entirely unreliable. The latter feature often hinders the investigation of important stress-related linguistic phenomena such as the presence or absence of synizesis, or the existence of secondary accentuation in certain verb forms. Also, the nature and style of the text (list of instructions in the medical part or list of predictions in the astrological part) entails that certain linguistic constructions are almost entirely absent. For example, as there is virtually no narration, Past tense forms of the verb are rarely to be met with, and the first person (singular and plural) of verbs and pronouns are all but absent. Future constructions occur only in the astrological sections, and there is a lack of complex syntax, questions and reported speech.

1.2 Text samples

Before embarking on a detailed linguistic analysis, it has been deemed useful to provide some samples of the text (in normalised spelling), in order to give a more concrete picture of the language described.[22]

(i) [58.4–17] Ὅταν τρέχει αἷμα ἀποὺ τὴν μύτην τοῦ ἀνθρώπου. Ἔπαρε καντήλι μολυβένιον, καὶ μάζωξε τοὺ αἷμα εἰς ἕνα σκουτέλι, ἀποὺ ἐκεῖνου ὁποὺ τρέχει, καὶ γράψε μέσα οὕτως: «Ὅταν ὁ Ζαχαρίας ὁ προφήτης ἐσφάγη ἐν τοῦ ναοῦ, καὶ τοὺ αἷμα ὁποὺ ἔτριχεν εἰς τὴν γῆν ἔγινεν ὡς λίθος καὶ οὐκ ἐξαλείφθη, ἕως οὗ νὰ ἔλθει ὁ δίκαιος αὐτοῦ· στῶμεν καλῶς, στῶμεν μετὰ φόβου Θεοῦ, ἀμήν». Καὶ εἰς ἐκεῖνου τοὺ ἀγγεῖου ὁποὺ τρέχει τοὺ αἷμα νὰ βάλεις τρία λιθαρόπουλα καὶ τοὺ αἷμα ὁποὺ τρέχει ἀποὺ τὸν ἄνθρωπον.

Ἔτιρον εἰς αὐτὸ νὰ γράψεις εἰς τοὺ γλέφαρόν του νὰ σταθεῖ τὸ αἷμα ἀποὺ τὴν μύτην. Ἔπαρε ἕνα φτερὸν καὶ <γ>ράψουν τοὺ αὐτοὺ πάλιν: «Ὅταν ὁ Ζαχαρίας ἐσφάγη ἐν τοῦ ναῷ, καὶ ἰπάγη τὸ αἷμ<α> ὡς λίθους, καὶ οὐκ ἐξελείφθη, ἕως οὗ νὰ ἐρθεῖ ὁ δίκαιος· στῶμεν καλῶς, στῶμεν μετὰ φόβου Θεοῦ, ἀμήν».

*Ὅτε βρωμοῦν τὰ ὀρθούνια τοῦ ἀνθρώπου. Ζ*ουμὶ ἀποὺ τὰ φύλλα τοῦ κισσοῦ, ἤγον τῆς μπρουσκλιανῆς, καὶ καλαμίνθι καὶ σμύρνα, τοὺ λέγον τούρκικα μουρσαφί, καὶ μέλι καὶ δύοσμον καὶ μιλάνθη, ἤγον μαυρουκούκκι, καὶ κρόκου καὶ ὀλίγον λάδι καὶ γάλα γυναικός.

(ii) [136.10–21] *Μέθοδος τῆς σιλήνης, παρὰ τῆς φλεβοτομίας τῆς σελήνης.* Εἰς τὴν -1- εἶναι κακὸν ὅτι τὴν ὀμορφάδα φέρνει εἰς κιτερνάδα τοῦ σώματος. Εἰς τὴν -2- κακὸν ὅτι ἀδυναμίαν ποιεῖ τοῦ σώματος καὶ δρωπικίαν τοῦ ἀνθρώπου. Εἰς τὶς -3- ὅτι ἀρρώστιαν ποιεῖ τοῦ σώματος ὅλον τὸν χρόνον. Εἰς τὶς -4- κακόν ὅτι ξάφνις ὀλιγουψυχᾶ ἢ ἀπεθνήσκει. Εἰς τὶς -5- κακὸν ὅτι λουλαίνιται, καὶ ἀδυναμίαν ποιεῖ τοῦ σώματος τὸ ἀνθρώπου. Εἰς τὶς -6- εἶναι καλὸν ὅτι πᾶσα ἀσθένεια καθαρίζει τοὺ σῶμα τοῦ ἀνθρώπου καὶ ἐβγάζει τὸν δρώπικα καὶ ἔρχιται ὥσπερ γάλα ἀποὺ τὸ στομάχι τοῦ ἀνθρώπου.

(iii) [17r(W222).1–9] Ἐὰν τύχει ἡμέρα Τετάρτη τὰ Χριστούγεννα, ἐστὶν χειμὼν κερασμένους, ἄρρωστοι πουλλοί, ἔαρ ὑγρόν, σίτου λεῖψις, χινόπουρον ἀνεμῶδες καὶ αἰφνίδιος θάνατος, μέλιτους λεῖψις, νεώτερων θλῖψις καὶ κιρὸς κακός. Ἐὰν ἡμέρα -5- τύχον τὰ Χριστούγεννα, εἶναι χειμὼν [λιμὼν ms.] ἀκατάστατος, νερὸ πουλύ, σεισμοὶ πολλοί, θέρους καλόν, ἔαρ ἀνιμῶδις, χινόπουρον κερασμένον, σπόρος καλός, μέλιτους λεῖψις, δεναστῶν ἀπόλειψις καὶ ἀπώλεια. Ἐὰν ἡμέρα Παρασκευὴ τύχον τὰ Χριστούγεννα, ἐστὶν χειμὼν κερασμένος, θέρος ὑγρόν, χινόπουρον ξηρόν, καρπῶν πάντων ἀφορία, κρασὶ καὶ λάδι πουλύ, νόσοι αἰφνίδιαι καὶ θανάτου ἐπικράτησις, νηπίων ἀπώλεια καὶ νερὰ λείψον.

(iv) [282.12–283.3] *Περὶ νὰ καπνίσεις ἄνθρωπον μαλαθραντζιάρην.* Κιννάβαρη δράμια -3- καὶ νὰ βάλεις κάρβουνα περισσὰ ἀπάνου εἰς κεραμίδα, καὶ ἂς κάτσει ὁ ἄνθρωπος εἰς τὰ γόνατα, καὶ σήκωσον τοὺ ποκάμισον εἰς τοὺ κεφάλι του καὶ σκέπασον μὶ τσέργα ἀποὺ τὸ λιμὸ καὶ κάτου τρογύρου δενατά, καὶ ἂς

22 Italics indicate rubrics in red ink.

κρατεῖ ἕνα φλωρὶ εἰς τὰ δόντια του νὰ μὴν πέσον, καὶ ρίξε τὴν κιννάβαρη ἀπάνου εἰς τὰ κάρβουνα, νὰ σέβει ὁ καπνὸς μέσα ὅλος εἰς τοὺ κορμί του, καὶ πρόσεχε νὰ μὴν ξισκεπαστεῖ, καὶ ποίησον φορὲς -3-, πρῶτα δράμια -3- καὶ δεύτιρον δράμια -2- καὶ || τρίτον δράμι -1- καὶ μὲ τὴν χάριν τοῦ Θεοῦ ὑγιαίνει. Καὶ ἂν εἶναι περισσὴ ἡ ἀσθένεια, βάλε καὶ ἕνα δράμι ἄξιφον ὕστιρα, καὶ ἂς φυλάγιται ἀποὺ κάθι λογῆς φαγὶ ἕως ἡμέρας -40-.

(v) [414(W205).3–9] Ἀρχὴ τοὺ Βροντουλόγιον, συνθεμένον ἀποὺ σοφοὺς διδασκάλους· καὶ ἂν φανεῖ τόξος ἢ σεισμὸς γένει ἀποὺ τὸ τρισμέγιστον Ἑρμῆν καὶ ἀποὺ τὸ Βαρλαάμ, καὶ νὰ ἰδεῖς πόσις ὥρις εἶναι τῆς ἡμέρας καὶ τὴν ὥραν ἐκείνην ποῖος πλανήτης τὴν κυριεύει καὶ ἡ σελήνη πόσων ἡμερῶν εἶναι, διατὶ ἡ σελήνη διὰ τὰ δώδεκα ζώδια, ἀμὴ ὁ ἥλιος τὰ δώδεκα ζώδια περπατεῖ διὰ -365- ἡμέρις καὶ ὥρις -6-. Καὶ ὡσὰν τὰ ἐρευνήσεις, τότε μπορεῖς νὰ εἰπεῖς σὰν βροντήσει καὶ σείσει καὶ ὁ ἥλιος ἢ τὸ φεγγάρι σκοτεινιάσει, ἢ τόξος φανεῖ, τί δηλοῖ.

1.3 Detailed linguistic analysis

1.3.1 Phonology

A VOWELS

As mentioned above, the most prominent feature of MS.4103 is the phenomenon of vowel raising, which is a typical characteristic of the so-called 'northern' dialects of Modern Greek, and constitutes the basic isogloss used for the classification of Modern Greek dialects. 'Northern' vowel raising consists in the raising of the mid vowels [o] and [e] to the high vowels [u] and [i] respectively when occurring in unstressed position. It has been documented in vernacular texts since at least the twelfth century, and is characteristic of the areas of Central Greece, Thessaly, Epirus, Macedonia, Thrace, and islands of the Northern Aegean.[23]

This feature is extensively documented in our text, although not with complete regularity. Examples: εἰς ἄνθρουπον ὁποὺ ἔχει πανάδα εἰς τοὺ πρόσωπον 61.11; τοῦ ἔρχιται νὰ ξιράσει 71.18; κἂν νουσήσει τις ἐν δισώμοις 7v(W215).9. The influence of this phonetic feature is so strong, that it permeates even sections of the text belonging to higher registers, or isolated lexical items belonging to higher registers, e.g. νοσήσοσι καὶ ἄλλοι ἐν τῷ αὐτῷ οἴκου 7v(W217).9–1; ὅταν ὁ Ζαχαρίας ἐσφάγη ἐν τοῦ ναῷ, καὶ ἰπάγη τὸ αἷμα ὡς λίθους 58.11–12; Λάζαρε, δεῦρου ἔξου 330.19; ὀδεπουσῶς (=οὐδεποσῶς) 140.15; τοὺ ὄνομα τοῦ ἀπωλισθέντους καὶ τοὺ ὄνουμα τοῦ ἀπουλέσαντος 13r(W274).10.

23 For the phenomenon and its value for the classification of Modern Greek dialects, see Newton (1972: 182–214) and Trudgill (2003: 49–54); for its dating, see Holton et al. (2019: vol. I, 29–37).

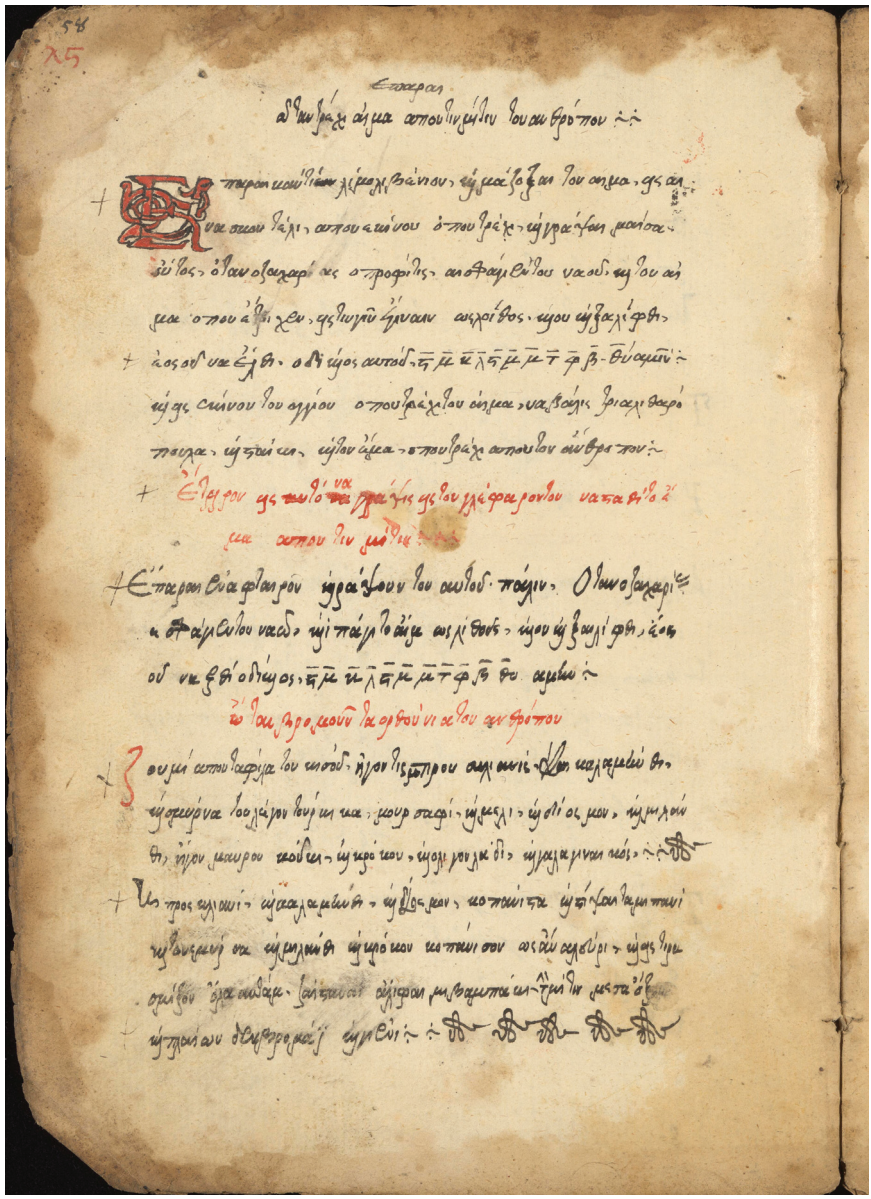

Figure 4.1 Londiniensis Wellcomensis MS.4103, p. 58.

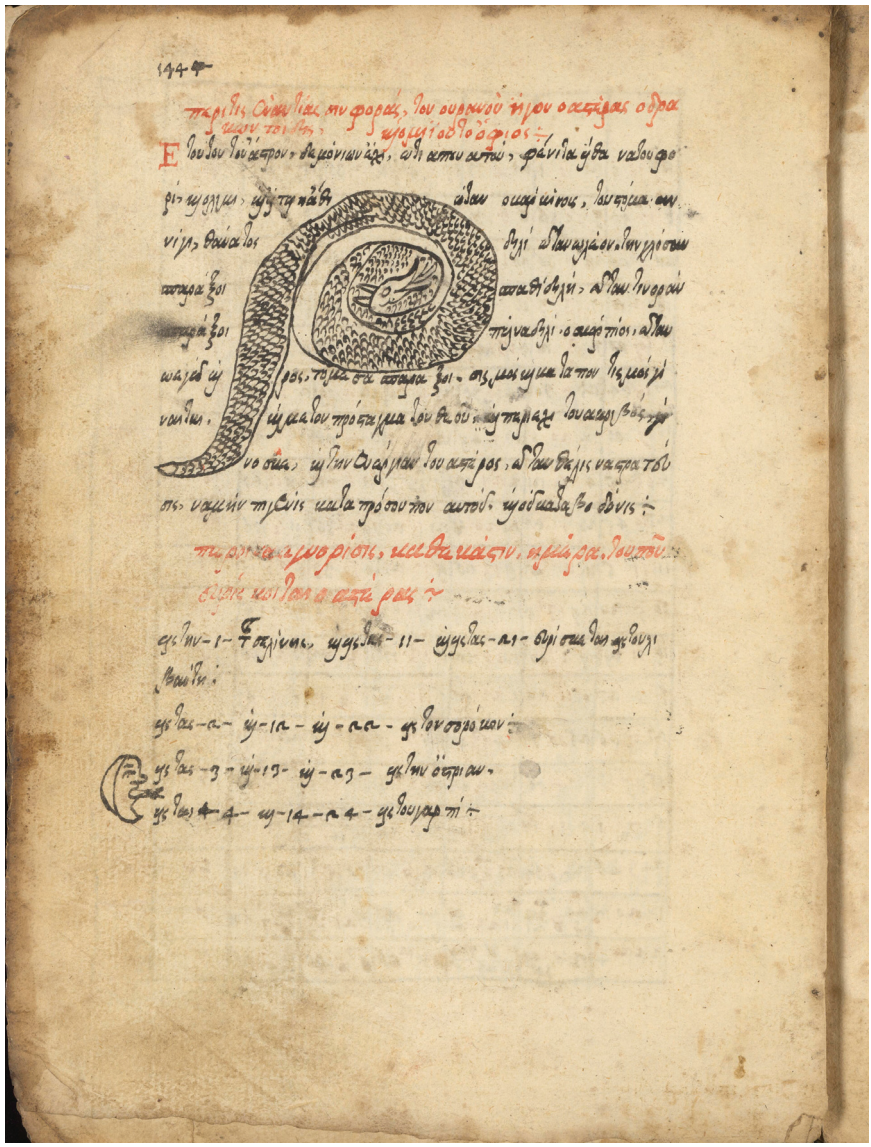

Figure 4.2 Londiniensis Wellcomensis MS.4103, p. 144.

The compiler is aware of this strong tendency for vowel raising, and often feels compelled to 'correct' it and restitute the word's original form; this frequently leads to the phenomenon of hypercorrection, i.e. to cases where even original-etymological instances of [u] and [i] are erroneously 'corrected back' to [o] and [e] respectively, e.g. ἃς πίνε (=ἃς πίνει, passim), ἤγον (=ἤγουν, passim), νὰ βράσον (=νὰ βράσουν, passim), καινόριαν ρίγανη 106.20, πουλετρίχι (=πολυτρίχι) 111.12, ξίδι δενατὸν 112.11, σὶ λίμνη κοντὰ μὴν κεμᾶτι (=μὴν κοιμᾶται) 121.17-18, περὶ ἀσυλλεψίας (=ἀσυλληψίας) 331.1.[24]

Northern vocalism as a phenomenon has a double instantiation. It is realised not only as vowel raising, as described above, but also as vowel deletion, and more specifically as deletion of the high vowels [i] and [u] when occurring in an unstressed position. This aspect of the phenomenon is less well represented in our manuscript, although several instances occur, e.g. τοὺ ὀρθούνι 55.16 (ρουθούνι > ρ'θούνι > ὀρθούνι), φ'γάδις (=φυγάδις) 7r.15, φ'λοκαλέα 94.8, κρ'φὰ 96.16, ἐκ'λύμπα 6r(W212).10, σ'κάμ'να 384.2, νεροκόν'δον 274(W119).6, τοῦ ἄν'θου τὴν ρίζαν (=ἄνηθου) 332.19, ἄν'θον 127.13, σκρουμπούν' 382.20, μαν'-τάρι 385bis(W196).9, περ'σσὸς 106.7, νὰ μὴν τὸ μασήσ' 193.12, ἔπ'τα 192.14 (=ἔπειτα), τάτ'λα 91.16 (=τάτουλα). It should be borne in mind, though, that some of the instances may be due to copying errors rather than to true phonetic changes. The scarcity of vowel deletion is not surprising since, as a rule, in written sources raising is much better recorded than deletion [see Holton et al. (2019: 37)]. An additional indication of high vowel deletion is again the reverse, hypercorrect, anaptyxis of a non-etymological high vowel breaking up consonant clusters. This is typical in the northern dialects of Modern Greek and is also recorded in Early Modern Greek texts of northern provenance. In our manuscript it is attested several times, e.g. καριδίαν (=καρδίαν) 162.11, κοριμί 211.11, τσουκονίδα (<τσουκουνίδα <τσουκνίδα) 341.11–12, φιτιάρι 284(W135).18.

As intimated above, northern vocalism firmly places the language of manuscript MS.4103 within the group of the northern dialects of Modern Greek, which includes the varieties spoken in Central Greece (Sterea Ellas), Thessaly, Epirus, Macedonia, Thrace, and islands of the Northern Aegean. Further linguistic investigation combining the evidence of other, morphological and syntactic, features, should narrow down the area in which the manuscript originated.

'Northern' vocalism is not very common in the iatrosophic and astrological texts published to date; in general, sizeable texts exhibiting vowel raising are very rare before the end of the seventeenth century [for details see Holton et al. (2019): 31–7]. *Iatrosophia* with northern vocalism are hitherto unknown before the late eighteenth to the mid-nineteenth century. Three typical examples are the nineteenth-century *iatrosophia* from Epirus

24 For hypercorrection in vernacular texts, see Jannaccone (1951); in texts of 'northern' provenance in particular, betraying the phenomenon of vowel raising, see Katsanis (2012: 43–4, 107–8).

published by Oikonomidis (1953), Krekoukias (1973), and Oikonomou (1978). A linguistic comparison of these texts with MS.4103 on the basis of parallel passages is instructive.[25]

MS.4103, f. 3r(W206).1–6

Περὶ ὅταν ἐβγαίνει τοὺ κάθισμα τοῦ ἀνθρώπου. Βάλε κρόκον τριμμένον καὶ ροδόσταγμον καὶ κρόκον ἀβγοῦ, ἀνακάτουσον ὁμοῦ ὡς ἀλοιφή, καὶ ἄλειφε τοὺ ἔντιρό του, καὶ σπρῶξον καὶ ἂς πηγαίνει μέσα, καὶ οὺ μὴ ἐξέβει πλέον. *Ἔτιρον.* Τὰ μαλλία τοῦ προβάτου, βάλι τα κάψι τα, καὶ τρίψε τα, καὶ ἀνακάτουσέ τα μὶ λάδι, καὶ θέσι τα ἀπάνου, καὶ οὺ μὴ ἐξέλθει τοῦ παιδίου τοὺ κάθισμα.

Iatrosophion from Epirus, ed. Oikonomou (1978: 257–8, n. 48)

Ὅταν ἐβγεῖ τὸ κάθισμα τοῦ ἀνθρώπου. Κρόκον ἀπὸ ἀβγὸν καὶ ροϊδόσταμον ἀνακάτωσον, βάλ᾽ το εἰς τὸ κάθισμα καὶ μαλλὶ ἄπλυτο, κάψι τὸ σκροῦμο, ἄλειφέ το μὲ λάδι, βάλ᾽ το εἰς τὸν πάτο.

MS.4103, 301.16–20

Περὶ νὰ φυτρώσον τρίχις. Καῦσε ἀβδέλλις νὰ γένον νὰ γένον σκόνη, τὴν ὁποίαν βράσε μὲ νιρόν, ἕως οὗ νὰ φυράσει τὸ τρίτον, καὶ μὲ τὸ νερὸν ἄλειφε τὸν τόπον, νὰ φυτρώσον οἱ τρίχες. Ἔτιρον, βράσε τὴν φλούδα τῆς πτελέας μὲ νιρόν, καὶ ἀλείφου τὸ κεφάλι, καὶ πάσσισε ἀπήγανον τριμμένον καὶ φυτρώνον.

Iatrosophion from Epirus, ed. Krekoukias (1973: 239, n. 24)

Διὰ νὰ φετρῶσον τρίχις. Νὰ κάψεις ἀβδέλλις εἰς τὴν φουτιὰν ὅσο νὰ γένουν σκούνη κὶ ἔπαρι τὴ σκούνη ἰκείνη κὶ βράσι την σὶ τρία νιρὰ ἕως νὰ φεράνει καὶ μὶ τὸ τρίτο νιρὸ ἄλειφι τὸν τόπον ἰκεῖνον νὰ φετρῶσον τρίχις. Πρῶτα ἄλειφι τὸν τόπον μὶ μέλι.

MS.4103, 193.19–20–194.1

Περὶ νὰ χαθοῦν οἱ ψύλλοι. Σκαντζοχέρου ἀξούγγι ἄλειψον τὴν σκούπαν, καὶ βάλε την εἰς ἕνα μέρους τοῦ σπιτίου σου· καὶ μαζώνουνται ὅλοι ἐκεῖ· ζιμάτισέ τους.

Iatrosophion from Epirus, ed. Oikonomidis (1953: 35, n. 36)

Διὰ νὰ ψοφήσουν οἱ ψύλλοι. Κάμε λάκκον εἰς τὴν μέσην τοῦ σπιτίου σου, κόψι ρόδον δάφνης καὶ βάλε το εἰς τὸ μέσον καὶ ἰκεῖ μαζεύοντι οἱ ψύλλοι καὶ ζιμάτησι αὐτοὺς καὶ τελειώνουν.

25 Note the instances of vowel raising such as κάψε > κάψι, φωτιὰν > φουτιάν, νερὰ > νιρά, ζεμάτισε > ζιμάτισι, as well as of hypercorrection, such as φυτρώσουν > φετρώσον.

The other phenomena involving vowel changes attested in our text are not specific to any dialect form, but constitute general characteristics of Medieval and Modern Greek.[26] These include the following:

- *Deletion of unstressed initial vowels*: the phenomenon, attested since the Early Medieval period, is frequent, but not regular (see above for examples of its variable instantiation): πρὸς ’γείαν 340.5, δὲν ’πιτυχαίνει 128.4–5, τῆς μυγδαλέας 293.20, εἶναι ’γιέστατον 121.9, τὸν πήγανον 130.22, τὸν δρώπικα 136.20, εἰς ’Δροχόον 8r(W216).3, εἰς ’Χθίαν 8r(W216).3-4.
- *Appearance of non-etymological vowels word-initially*: the deletion of initial vowels, combined with misanalysis of word boundaries, often leads to changes in a word’s initial vowel (e.g. τὰ ἔντερα > τά ’ντερα > τά ’ντερα > τὰ ἄντερα). Again, the phenomenon is frequent, without regularity. Examples include: μέσα καὶ ὄξου 75.5, τὰ ἄντιρα 192.18, τῆς ἀλαφίνας 320.6, ὀμπρὸς 414(W205).10, ἀλαφραίνει 210.3.
- *Prothesis of non-etymological initial vowels (most frequently [a])*: having as its origin the false segmentation at word boundaries, the development of an initial vowel in originally consonant-initial words is a common feature of Medieval and Early Modern texts. In MS.4013 several instances are to be found, e.g. ἀβδέλλις 96.17, ἀμασχάλη 287.3, ἀπαλάμη 196.11, ἀστήθι 105.3, τοὺ ἀχείλι 70.11, ἀγλήγορα 89.17, ὀγλήγορα 337.11. Realisation is again variable, as forms without prothesis also occur, e.g. γλήγορα 337.7; τὸ στῆθος 153.6.
- *Change of [i] to [e] in the adjacency of liquid and nasal consonants*: this is a very early change, dated to the Hellenistic period, which is characteristic for the Greek of all areas, but without regularity. The phenomenon is difficult to identify in this text, as instances of [i] > [e] could also be attributed to the hypercorrection of the reverse phenomenon, i.e. the raising of [e] to [i] described earlier. Examples: βούτερον 71.10, κύμενον 106.14, σίδερον (passim), τερόγαλον 65.19; μερμηγκιῶν 140.19; μερσίνη (passim).
- *Change of [i] to [u] next to velar and labial consonants*: this phenomenon, again of relatively early appearance, has often been interpreted as retention of the original pronunciation [u] of the vowel <υ>. Examples of variable realisation include: ἀξούγγι 92.6 ~ ξύγγι 91.12; τῆς μερσίνης (…) ἤγον τῆς μουρτέας 99.10 ~ μυρσίνης 14v(W247).3; σουπέας 56.10; κρουστάλλι 81.18; ξούρισον 303.12.
- *Synizesis, i.e. the change of [e] or [i] into a semivowel [j] when followed by another vowel*: this phenomenon, of major importance both for dating as well as for dialectal classification, is rather difficult to detect in

26 A dialectological overview of these features is offered in Newton (1972), while a historical one is provided by Horrocks (2010). For the detailed investigation of their attestations in Medieval and Early Modern Greek see Holton et al. (2019, vol. I).

this manuscript due the erratic accentuation, as mentioned above. However, several instances are clearly marked with an accent, e.g. φωτιὰν 75.3, μία χεριὰ 82.13, ἀχλαδιὰν 290(W141).4, φωλιὰν 141.3. Other indications include the spelling with <ι> of an original [e], e.g. λιόλαδον 286 (W137).19, δαιμοναριᾶς 120.16, and the spelling of the semivowel with a fricative consonant (usually <γ>): *αυχοιῶνοι* (=ἀφιόνι) 330.14, γιάρι 82.8, γιᾶται 60.6, γιατρεύιται 74.18, *του μοικρου κοταυγιου* (=τοῦ μικροῦ κοταβιοῦ) 195.14. There are also several cases where synizesis does not apply, probably due to the conservative nature of the texts which constitute the sources of the compiler: ἀλιφασκέα 96.13, ἀψινθέας 93.14, δρακοντέας 59.15; ἰατρεύει 285(W136).9, συκαμνέας 93.19.

- *Apocope of final vowel*: the final vowel [e] is occasionally deleted in the imperative, when the verb is followed by a clitic pronoun: κλεῖσ' τον 57.14, κοπάνισ' τα 58.18.
- *Crasis*: as a means of resolving hiatus at word boundaries, the text exhibits, albeit rarely, the innovative phenomenon of crasis [see Andriotis (1956)], i.e. the merger of [u] followed by [e] to [o]. Only a couple of examples have been located: ὀπὄχει ψεῖρις 289.4, ὀπὄχει ὀλόγυρα 55.5.

B CONSONANTS

There are no major regional/dialectal phenomena involving consonants which would assist in the geographical localisation of the text, and most innovations characterise later in Greek in general. The most characteristic are:

- *Deletion of final [n]*: this feature, appearing from the Hellenistic period onward, presents great variation in MS.4013, due to the mixture of higher and lower registers. In general, there is an attempt to retain the final [n], but deletion is common in the accusative singular of feminine nouns, e.g. δὲν φοβᾶσι καμία ἀνάγκη 132.6, ἔπαρε μία λίτρα 192.11, δενατὴ ρακὴ 279bis (W128).11, and in neuter nouns in -ι (<-ιον), e.g. κρασὶ 97.1, πουτήρι 105.2, ἀλεύρι 106.15, κρομμύδι 108.10, κορμὶ 110.20. The tendency for final [n] deletion is counterbalanced by the occasional addition of a non-etymological final [n]: ἕναν μήναν 65.6; ρίζαν ἡ ὁποίαν εἶναι 185.17.
- *Anaptyxis of intervocalic [ɣ/j]*: a glide occasionally develops between vowels within the word, or at word boundaries, for the avoidance of hiatus: ἀλόγην 187.5, τὰ γούλη 81.9, εὐποιγία 152.18, καίγει 69.9, κυλάγει 209.9, λοῦγε 130.14, ὠφελάγει 55.4.
- *Deletion of fricatives before nasals*: this is a late medieval phenomenon, with examples such as θαμάσιον 112.19, θαμαστὰ 210.21, μαλαμένον 313.6, πράματα 63.10, ρεματιζόμενα 96.10.
- *Liquid interchange*: a very common change, datable to the Hellenistic times, the liquid [l] changes to [r] when followed by another consonant, without regularity: ἁρμυρὸν 114.16, ἁρμυρίχι 194.14, νὰ ἔρθει 125.17,

ὀφθαρμικὸν 309.13. Also, dissimilation of two consecutive liquids in the same word may occur: μάλαθρου ρίζαν 278(W123.7), κεφαλαρία (<κεφαλαργία<κεφαλαλγία) 138.1–2, πιροῦλες (<πιλοῦλες) 288.6, γλήγορος 111.1.

- *Manner dissimilation of consonant clusters*: very commonly in all vernacular texts from the Early Medieval period onward, consecutive consonants with the same place of articulation (stop + stop, fricative + fricative) are dissimilated into clusters of stop + fricative. The phenomenon is rarely represented in this manuscript, which displays a strong preference for the older realisations [kt], [xθ], [pt], [fθ] rather than [xt], [ft]. In fact [xt] appears only in two words, ὀχτὼ (passim) and νύχτα 381.4; in all other cases only forms with [kt] or [xθ] are attested, e.g. ἀλυκτήσει 317.9, ἐχθρὸν 141.12, κτίσματα 412.21, κτύπημα 319.16, σμιχθοῦν 307.4, στάκτη 56.6 et passim, ἂν τιναχθεῖ 140.13. The cluster [ft] appears more commonly, e.g. φτέρης 23v(W211).17, τὲς φτέρνις 4r(W208).15, φτιλέας φύλλα 331.7, φτιρὸν 331.19, νὰ νιφτεῖ 61.17–18, προφτάσει 85.4, ἐφτηνὰ 149.9, νὰ σκύφτει 76.20. Conservative realisations are also to be found: νὰ ἀλειφθεῖ 307.2, ὀφθαλμοῦ 161.2, νὰ τριφθοῦν 316.14. Manner dissimilation of stops and fricatives is also betrayed by hypercorrection, e.g. εὔχουλα (=εὔκολα) 335.3, κόφθει 20r (W228).17, ὄρνιθας φθερὰ 141.12.
- *Palatalisation of sibilants*: one of the few post-medieval dialectal phenomena affecting the consonant system as represented in this text is the fronted (palatalised-palatoalveolar) realisation of the sibilants [s] and [z] before a semivowel, or in loanwords containing the sounds [ʃ] and [ʤ]: κοτσιάνια 83.14–15, ματζιούνι 105.6, νισιατίρι 85.2, νὰ τὰ ξιαφρίσεις 123.11, ξιάφρισον 113.15, τσιαρσὶ 84.18, φιλτζιάνι 381.19.
- *Deletion of nasals before voiced stops*: for the localisation of the text it would be helpful to know whether the scribe's native dialect exhibits deletion of the nasal before voiced stops, i.e. whether he pronounced the digraphs <μπ>, <ντ>, <γκ> as [mb], [nd], [ng], or as plain [b], [d], [g], since this constitutes a major isogloss dividing northern dialects. However, this is almost impossible to detect in a written text, as both realisations are normally spelt the same (as in Standard Modern Greek). Nevertheless, there are indirect indications that the scribe's dialect might indeed belong to the group where the nasal is retained: (a) the frequent spelling of <γκ>, <γγ> with an explicit nasal, as <νκ>, e.g. σαλινκάρους 64.14, ἐνκράτεια 107.14, συνκομμὸς 111.1, σφονκάρι 319.19; (b) the spelling <νγγ> and <νγκ> instead of <γγ>, <γκ>, e.g. στράνγγισον 93.8, συνγγέρνα 281(W132).10, νεροάνγγαθον 299.10, γονγγυλίου 304.16, σαλινγκάρους 57.2; and (c) the almost total absence of spellings with a plain stop <π, τ, κ> instead of the correct cluster <μπ, ντ, γκ>, i.e. the nonexistence of forms like ὀπρός, πάρπας, πέτε (=ὀμπρός, μπάρμπας, πέντε), a practice which is common in texts from areas with regular nasal deletion, such as the Peloponnese and the Cyclades.

1.3.2 Morphology

A NOMINAL MORPHOLOGY

In the domain of the article, it should be noted that the characteristic for several dialects realisation [i] for the nominative singular of the masculine ὁ does not occur. The masculine singular accusative τοὺν is a phonetic variant due to vowel raising (τοὺν ἄνθρουπον 121.13), as well as the neuter nominative/accusative τού e.g. τοὺ καλακάνθι 55.15, τοὺ κεφάλι 282.1, τοὺ στόμα 283.20 (et passim). The accusative masculine plural is always τούς, while the feminine varies between τάς, τές, and τίς, e.g. τὰς τρύπας 195.1, τὲς ἡμέρις 11r(W240).16, τὶς σταφίδες 188.20. The nominative feminine plural also shows variation between αἱ and οἱ, e.g. αἱ ὧρες 132.13, οἱ ρίζις 81.2.

Nominal inflection presents an admixture of inherited, conservative inflectional suffixes alongside new morphological features from various chronological periods. For reasons of space, it is not possible to provide a full inflectional paradigm for all noun subtypes. Instead, an overview of innovative endings and their variants is provided for each of the three genders.

Masculine

- *Nouns in -ος*: the inherited second declension masculine nouns remain stable, without variation. Even the final -ν of the accusative singular is never deleted, e.g. τὸν δύοσμον 189.1, τὸν ἄνθρωπον 187.16, χειμωνικὸν σπόρον κόκκινον καὶ μαῦρον καὶ πεπονόσπορον 61.9.
- *Nouns in -ας*: the plural is formed in -ες, rarely -αι, e.g. λησταὶ καὶ κλέπται 153.8. The only instances of the innovative suffix -άδες are: τρεῖς κορμάδις 4v(W209).15–6, οἱ ἀδικητάδις 386.7, if one discounts the inherited form φυγάς, see φ'γάδις 7r(W214).15.
- *Nouns in -εύς:* the innovative nominative έας, e.g. βασιλέας 22r (W230).13, competes with the conservative suffix -εύς, represented by βασιλεὺς 148.14 and Ζεὺς 8r(W216).11.
- *Consonant-stem nouns*: the transition from the third to the first declension is evidenced through nominative singular forms such as ἀστέρας 19v(W227).1, ἰχθύας 7v(W215).13, χειμώνας 135.8. The accusative plural ends both in -ας, e.g. τοὺς βραχίονας 137.11–12, τοὺς πόδας passim, ἄρχοντας 8r(W216).2, and in -ες, e.g. τοὺς μῆνες 414(W205).12, τοὺς ἄρχοντες 22r(W231).18. Proparoxytone nouns also have an accusative plural in -ους with accent shift, on the analogy of the second declension nouns in -ος, e.g. μηλίγγους 156.9, καβούρους passim.
- *Nouns in -ές*: the small innovative inflectional class of masculine nouns in -ές is attested, e.g. μὲ τοὺ μενιξὲ 4v(W209).5, τὸν τέντζιρε 381.17.

Feminine

- *Nouns in -ος*: the inherited second declension nouns in -ος are only rarely to be met with in this text. Some have undergone gender change and have become masculine, e.g. ἔτιρος μέθοδος 12v(W243).11, ὁ ἔλαφος 278 (W123).19. Others present deletion of final -s, e.g. ἡ Θεουτόκου 337.21.
- *Nouns in -α and -η*: the plural is formed both in -αι and in -ες, on the analogy of the third declension: ἡμέραι αἱ πληγαὶ 17v(W223).18, αἱ χῶραι 18r(W224).3, πολλαὶ μάχαι 7v(W215).1, βροχαὶ πολλαὶ 9v(W237).4 vs. αἱ ὧρες 132.13, οἱ ρίζις 81.2. Similarly, the accusative plural appears both in -ας and in -ες, e.g. πέτσες καθαρὲς 59.12–13, πουλλὲς φουρὲς 75.13, εἰς τὲς στράτις καὶ εἰς τὶς ράχις 83.4, τὲς τρύπες 90.7.
    - Of special interest is the innovative plural in -δες, which, starting from inherited third declension consonant-stem nouns in -άς, -άδος and -ις, -ιδος (e.g. ἀγελάς -άδος) has spread to vowel-stem nouns as well. The only two nouns with the new ending are: (plural) ταχινάδις 66.18, ταχινάδες 281(W132).3 and ὀκάδις 125.4 (passim).
    - Feminine nouns in -α present a merger of the first and third declension. This is evidenced through the genitive singular -ας competing with the inherited suffix -ος, e.g. ἀγελάδας 91.6, ἑβδομάδας 132.14, τσουκνίδας 84.10, πεκραλίδας 122.4, νυκτιρίδας 158.4, πιτυρίδας 274 (W119).9 vs. ἀκρίδος 152.19, πατρίδος 7r(W214).16, σανίδος 14r (W246).5–6. The accusative plural also varies between older -ας and innovative -ες, e.g. γλιστρίδας 68.6, κιτιρνάδας 66.17, πατούνας 140.9, τὰς τρίχας 157.8, ἡμέρες 63.18, πικραλίδες 111.12, ζωχάδις 274 (W119).10, πρεκνάδις 65.17.

- *Nouns in -ις*: present the innovative plural in -ες, e.g., οἱ κίνησις 139.8, καῦσες 111.14, while the older suffixes -εις, genitive -εων, occur only in passages copied from higher-register texts, e.g. ὀχλήσεις 149.8, πόλεων 18r(W224).20.
- *Nouns in -έα*: present variation between conservative forms and innovative forms exhibiting synizesis, e.g. ἀψινθέας 93.14, δρακοντέας 62.5 (et passim), πτελέας 62.9, συκαμνέας 93.19, συκέας 90.16 vs. δαιμοναριᾶς 91.10, λυγαριᾶς 93.7, καπνιᾶς 116.16, κιρασιᾶς 105.15, κομαριᾶς 93.13. The nominative and accusative plural are formed both in -ὲς (<-εες) and in -ιές, e.g. χολιαρὲς 93.2, ἐλὲς 299.14 vs. χουλιαριὲς 212.3.
- *Nouns in -ου*: the innovative inflectional class of feminine nouns in -ου is represented by ἀλωπού, e.g. μιὰ ἀλουποὺ 280(W129).6, ἀλουποῦς χολὴν 194.5.

Neuter

- *Nouns in -ο(ν)*: as in the case of masculine nouns, second declension neuters in -ον retain their inherited inflection without variation. In contrast to

masculines, they do present variable deletion of final -ν in the nominative and accusative singular. Deletion of -ν seems to be more common when the final vowel has undergone the raising [o] > [u]. Examples: τοὺ ἀγγεῖου 58.7, τοὺ πράσου 55.1, τὸ πρόσουπου 62.8 vs. ἔμπλαστρον 188.10, τοὺ κόκκαλον 191.10, νιρὸν κρύον 57.14, τοὺ πρόσουπον 62.11. Note, however, that the handwriting of the manuscript often makes it very difficult to distinguish υ from ν. The only irregular plural form is ὀνείρατα 379(W188).2.

- *Nouns in -ι(ν)*: a new inflectional class of neuters in -ι exists alongside the older forms in -ιον, e.g. ἀσπράδι 59.7, ἀφτὶ 55.2, βαμπάκι 58.20, γλυστήρι 85.15, ζουμὶ 59.17, καλακάνθι 212.16, μαλλὶ 56.17, μασούρι 55.14, vs. γλυστήριον 92.6, δρακόντιον 55.6, καβουροτσέφλιον 61.6, σκολοπένδριον 67.3, ὀψάριον 97.3. The intermediate forms in -ιν are also attested, but more rarely, e.g. βερνίκιν 294(W145).17, γιάριν 56.8, κεφάλιν 304.1, φεγγάριν 139.11, χέριν 122.6. The genitive singular of this class appears both with and without synizesis, e.g. πανίου 56.6, ρεπανίου 65.12, συκωτίου 72.14, φοινικίου 70.19, vs. πεπουνιοῦ 61.14, τοῦ ριγανιοῦ καὶ τοῦ μαρουλιοῦ 86.18, κεφαλιοῦ 133.19–20. Similarly, the nominative and accusative plural is formed in -ία e.g. βυζία 332.5, κοκκία 273(W118).13, σπυρία 189.3, φαγία 65.1 vs. καυχιὰ 279bis(W128).8, μηριὰ 382.17, πανιὰ 141.8, σπυριὰ 308.7. In both cases the placement of the accent is frequently dubious or could be considered purely conventional.
- *S-stem nouns*: these exhibit a tendency for transfer to the second declension, with innovative forms -ον alongside older forms in -ος, e.g. ἔχει βάρον τὸ στῆθον 340.10, τοῦ μάκρου 292(W143).2, vs. βάρος 110.18, μέλος 195.4, ὄξος 292(W143.10). The older ending may also appear with vowel raising, e.g. θέρους 135.8, μέρους 193.20, στῆθους 59.20. The reformed singular in -ι, on the analogy of the plural in -η, is also to be found, e.g. τοὺ ἀστήθι 188.16, τοὺ ἀχείλι 70.11, τοὺ ἄνθι 211.3. The plural appears both as older -η and as innovative -ια, e.g. βρέφη 33.14, χείλη 70.4, vs. βρέφια 332.5, χείλια 70.1, ἀχείλια 70.6. A number of second declension nouns have partially or fully transferred to this class, e.g. τὰ γούλη 81.9, τὰ κάστρη 152.5, οὔρους 113.4, τὸ οὖρος 160.4.
- *Dental-stem nouns in -μα*: retain their inherited inflection, never exhibiting addition of final -ν. The genitive singular is formed both with the older suffix -ος and the innovative suffix -ου, e.g. ὀνόματος 139.19, στόματος 67.11, σώματος 131.20, vs. γευμάτου 189.4, κλημάτου 310.20. Of special interest is the hapax genitive singular χαλκωματίου 281.13 (nominative χάλκωμα), characteristic of some dialects [Northern Aegean, Cappadocia, Peloponnese; see Papadopoulos (1927: 57); Georgacas (1951); Holton et al. (2019: II: 652)].
- *A number of nouns present gender change*: (a) from feminine to masculine: τοὺς ἀμασκάλες 140.8, ὁ ζάχαρης 381.1, τοὺς πλάτες 116.9, τοὺς ψήφους 140.2; (b) from masculine to feminine: τὴν ἀχυρώνα 4r(W208)9, τὲς χαρακτῆρις 334.4, τὶς χαρακτῆρες 336.9; (c) from neuter to masculine: θέρους καλός, φθινόπουρος ἀχαμνὸς 136.2.

B ADJECTIVES

Adjective inflection follows that of nouns. Most belong to the class of second declension adjectives in -ος, -η/-α, -ο(ν). Very rarely, in rather higher-register passages one may encounter feminine adjectives in -ος, e.g. ἅρμην θαλάσσιον 272(W117).14, ἄγριον μολόχαν τὴν πλατύφυλλον 23v (W211).4.

A new inflectional class is constituted by adjectives formed with the suffix -ιάρης, -ιάρικος: μελίσσια βλογιάρικα 63.10, ζῶα ψωριάρικα 277(W126).11, σκρόφας πρωτάρικης 141.15, σκύλος λυσσιάρικος 317.8, ἄνθρωπον μαλαφραντζιάρην 282.11, τοῦ κασιδιάρη 304.3, ζηλιάρης 413(W204).8.

Adjectives in -ύς are few in number, e.g. ξίδι δριμὺ 306.3, ἀψὺ ξίδι 383.3–4, βαρὺ νοῦν 127.15, 16, χειμώνας βαρὺς 150.12, δαδὶ παχὺ 82.8, but seem to have attracted a number of adjectives in -ος to their inflectional pattern, e.g. μακρύ 196.18, τρίχας μακρὰς 206.5, μακρὺ φιτίλι 332.8, ὁ σφυγμὸς εἶναι ἀρὺς 379(W188).11. Inflectional forms with stem ending in a vowel appear both with and without synizesis, e.g. γυναίκα λαπρὰ καὶ παχέα 334.19 vs. τὴν παχιὰ 193.11, πλατιὰ 63.13. Deletion of the semivowel resulting from synizesis is also attested (once): δασὰ 292.1.

S-stem adjectives are surprisingly common, albeit appearing mostly in higher-register passages, e.g. ὁ ἀσθενὴς (passim); ἀνεμώδης 16v(W221).4, παχνώδης 136.2, θυμώδης 8v(W217).18, νοσώδης 12r(W242).7, θέρος καματῶδες, ἔαρ ἀνιμῶδις 17r(W222).5, χινόπουρον ἀνεμῶδες 17r(W222).2, ὁ ἀστέρας ὁ δρακοντοειδὴς 144.1–2, αἱματοειδὴς 19r(W226).12, σπαθοειδὴς 10v (W239).11. Innovative forms include the genitive singular τοῦ ἀσθενῆ 140.8 and the hapax neuter εἶναι ψευδὸ 6v(W213).22.

An adjectival category of special interest for the localisation of the text is the verbal adjectives which both in Standard Modern Greek and in Classical Greek are formed through the suffix -(σ)τος; in many dialectal varieties their negative form presents the variant -γος, formed analogically on the basis of verbs with velar stem [see Kakridis (1926); Papanastasiou (2008); Tsolakidis and Melissaropoulou (2010)]. This variant appears several times in our manuscript, e.g. ἀνέγγιγον χαρτὶ 156.20, ἀκοσκίνιγον ἀλεύρι 280 (W125).8, ἀφόρηγον τσουκάλι 296(W147).7; the latter also with deletion of intervocalic [γ], e.g. τσουκάλι ἀφόρηον 275.17–18, πανὶ ἀφόρηου 275 (W120).16. Modern research shows that the innovative forms in -γος appear only in specific dialectal varieties; these include Pontus, the Peloponnese, Sterea Ellas, Epirus, and Macedonia. In Epirus, this characteristic is especially pronounced [Bongas (1964: 17–18); Kosmas (1997: 31)]; in the case of Macedonia, these adjectives appear only with verbs with velar of vowel stem, and not in verbs with the suffix -ίζω [Papanastasiou (2008: 310–11); Tsolaki (2009: 51–2)]. The existence of forms like ἀκοσκίνιγο therefore constitute evidence against a localisation of our text in Macedonia.

Comparison is normally expressed through inherited synthetic comparatives, e.g. κοντότιρον 83.5, μακρύτιρα 301.8, πλατύτερον 83.5, στρογγυλότιρο

94.13, occasionally even in forms which normally do not lend themselves to comparison, e.g. σταματικότερον 55.9, στριφτότερον 83.6. Once, pleonastic comparison with both periphrastic and suffixal expression occurs: πλέον καλλιότερον 383.1. Superlatives also display inherited suffixal patterns, e.g. ἀληθέστατον 93.17, ’γιέστατα 132.1, θαυμασιότατον 122.18.

C PRONOUNS

- *Demonstrative*: the text displays a three-member system [for a categorisation, see Lendari and Manolessou (2013)] with the pronouns αὐτὸς – τοῦτος – ἐκεῖνος, e.g. αὐτὸν τὸν μήναν 132.3, αὐτὰ τὰ ζώδια – ἐτούτου τοὺ ἄστρον 144.3, ἐτούτους τοὺς λόγους 336.8 – ἐκεῖνον τὸν καιρὸν 131.6–7, οἱ τόποι ἐκεῖνοι 18v(W225).10, ἐκεῖνες τὶς ἡμέρις 11r (W240).11. The inflection of these pronouns includes several innovative forms betraying cross-paradigmatic analogical influence. Examples: αὐτουνῶν τὸν ζουμὸν 209.4, αὐτουνοῦ ἡ ρίζα 209.10, αὐτουνοῦ τὸ δόντι 330.16–17, τουτονοῦ 23r(W210).6, τὴ νύκτα ταύτη 194.2. The qualitative demonstratives are τέτοιος and τοιοῦτος, e.g. τέτοια εὐτυχία 413(W204).19, τοιούτων ἀνδρῶν 6r(W212).11–2, τοιούτους γάμους 7v(W215).1.
- *Relative*: apart from the occasional appearance of residual archaic pronominal forms, occurring in higher-register passages (e.g. τὴν ἀποκάλυψιν ἣν ἐδέξαντο 60.12–13, οἵτινες οἰκοδόμησαν 324.18), the definite relative system consists mainly of two pronouns, ὁπού/πού and ὁ ὁποῖος. Examples: ἄνθρωπον ὁποὺ ἔχει ψεῖρες 288.20, τοὺ χόρτον ὁποὺ λέγον χιλιδόνιον 277bis(W126).4–5, τοὺ κεφάλι ὁποὺ δὲν ἔχει τρίχες 303.3 ~ τὸν πόνον ποὺ πονεῖ 279bis(W128).17, εἰς παιδίο ποὺ κλαίει 157.13, ἐκεῖνα ποὺ βάνον εἰς τὰ χρυσόπετσα 294(W145).17 ~ ὁ ὁποῖος λέγιται 10v(W239).1–2, ἡ ὁποία εἶναι 384.19, σκόνη τὴν ὁποίαν βράσε 301.17. The main indefinite relatives are εἴτις and ὅποιος: πᾶν εἴτι θέλει, ποιεῖ 10r(W238).16, εἴτι δουλεία νὰ ἐπεχειριστεῖ ὁ ἄνθρωπος, δὲν προυκόβει 128.6–7, τρῶγε ἀποὺ εἴτι σὶ ἀρέσει 131.6, πότισον εἴτιναν θέλεις 155.8 ~ ὅποια γυναίκα 339.10, ὅποιον πουνοῦν τὰ δόντια 76.2, ὅποιος κατουρεῖ 109.18. The form ὅ,τις appears once: περὶ ὅ,τις ἴδει 6r (W212).14.
- *Interrogative*: the two pronouns that appear are ποῖος and πόσος, while τίς occurs once in a learned passage: ποῖος πλανήτης τὴν κυριεύει 414 (W205).5, εἰς ποίαν εὑρίσκεται 11v(W241).9, σὲ ποῖον ζώδιον εἶναι 414 (W205).9 ~ τίς ἡ κραυγὴ ἐκ τῆς γῆς 336.2 ~ πόσις ἡμέρις εἶχεν ἡ σελήνη 12v(W243).11–12, πόσα στοιχεῖα ἔχει 12r(W243).13.
- *Indefinite*: positive indefinites (= ‘someone’) include the older τις/τινάς, ὁδεῖνα and the innovative κάποιος, κάμποσος, κάθε, καθείς. Neutral indefinites (= ‘anyone’) are represented by τις/τινὰς and κανένας, while

negative ones (= 'no one') are τις/τινάς, κανένας, and οὐδείς.[27] Examples: ἐὰν ἰδεῖ τινὰς ὄνειρον 386.6, ἀνθρώπου τινὸς 6r(W212).8 ~ τὸν δοῦλον σου ὁδεῖνα 155.5, κοίμησον τὸν οὐδεῖνα 155.8, τοῦ ὁδεῖνα τὸ νεφρὸν 278(W123).17 ~ ἀποὺ κάποια φαγητὰ 323.9 κάποιας ἐνεργείας W234.1 ~ κάμποσα πίτυρα 381.10, κάμποσον ξίδι 4v (W209).12, κάμποσον κρόκον 32.17 ~ ἀποὺ καθένα 111.13 ~ ἀποὺ κάθε πειρασμὸν 9r(W236).17, κάθε ἄνθρωπος 9r(W236).13, εἰς κάθι πράξιν 10r(W.238).18. ὄνειρον ὅτι ἀναστήθηκε νικρὸς κανένας 386.6, γιὰ καμίαν δολίαν 6r(W212).8, οὐδεμίαν αἰτίαν 6r(W212).19, οὐδὲν ἕτερον 21r(W248).10 ~ νὰ μὴν τὸ ξέρει τινὰς 334.4, μὴν τοὺ ὁμολογήσεις τινὰν 6r(W.212).20 ~ διὰ κανέναν τρόπον 131.21, εἰς καμίαν στράταν 9r(W236).16.

D VERBS

The verbal system displays two conjugations: barytone verbs in -ω and oxytone verbs in -ῶ. The -μι conjugation has long disappeared, being retained only in relic forms in higher-register passages, e.g. τίθεται 21r(W248).6, ἵστανται 56.3, ἵστατο 336.13. As discussed above, not all forms of the verb are represented in this text, due to its narrow range of expression. As a result, treatment will be selective, with discussion only of inflectional slots which present variation or special interest.

Barytone verbs

Active voice

- *Present*: the first plural exhibits variation between -ομεν and -ουμεν, e.g. γράφομεν 10r(W238).12, βάνομεν 279(W124).4 ~ παίρνουμεν 11r (W240).15, λέγουμεν 11r(W240).17. Deletion of final -ν is also to be found, e.g. γράφομε 322.11, νὰ κάμουμε 9r(W236).16. The third person plural displays both the older ending -ουσι(ν) and the innovative -ουν, e.g. ἐβγάζουσι 380.6, προκόπτουσι 7v(W215).8, ἐβγαίνουσιν 412.9, ἔχουσιν 7r(W214).20 ~ νὰ ψουφήσουν 195.1, γιαίνουν 4v(W209).1, νὰ βράζον 381.1.
- *Imperfect*: there are no instances in the text.
- *Aorist*: the rare second person singular is formed both with -ας and with -ες, e.g. ἐγέννησες 336.18 ~ ἔλυσας 291.7. The first person plural ends in -με(ν), e.g. ἀναφέραμεν 139.13, δοκιμάσαμεν 64.13, εἴπαμεν 308.12; εἴπαμε 290(W141).7, 308.19.

27 For the classification and evolution of indefinite pronouns see Holton et al. (2019, vol. II: 1023–4).

Passive voice

- *Present*: the second singular is always -σαι, e.g. μὴ γίνεσαι 7r (W214).17, νὰ φυλάγισαι 380.3, ὡσὰν δύνεσαι 131.10. The first person plural is formed with the suffix -μεστε, e.g. ἀνταμωνόμεστι 11r (W240).16–17, ἀρχόμεστε 130.2, and the third person plural in -ονται, e.g. γίνονται 7v(W215).1, ἔρχονται 386.9.
- *Imperfect*: the third person singular is represented once by ἐλούετον 6r(W212).12, while the third person plural displays variation between conservative -ντο and innovative -νταν: ἐδέξαντο ~ ἐστέκονταν 6r(W212).1.
- *Aorist*: the middle Aorist exists only as an occasional residual form in higher-level passages, e.g. ἐδέξατο 386.21. In the passive, the first singular is always -(θ)ην, e.g. ἐγὼ ἐκοιμήθην 158.15, συνεκόπην 278(W123).16, whereas the third singular shows variation between the older forms in -(θ)η- and, more rarely, the innovative -(θ)ηκ-, e.g. ἀνέστη 163.19, ἰατρεύθη 295(W146).4, ἐχασμήνθη 10v(W239).18, ἐμαζώκτην ἡ θάλασσα, ἐμαζώκτη ἡ γῆ 279(W123).18. Variation occurs in the third person plural as well: συνεκόπησαν 278(W123).18 ~ ἐγιατρεύτηκαν 286(W137).17.
- *Imperative*: this is the best represented verbal form in the text. In the Present, the second person singular ends in -ε, e.g. παῖρνε 380.1, πρόσεχε 282.17, τρῶγε 380.2. In the Aorist, there is constant variation between older -ον and innovative -ε based on the analogy of the Present, e.g. γράψε 58.3 ~ γράψον 59.19, βράσε 63.1 ~ βράσον 63.3, ἔπαρον 59.5 ~ ἔπαρε 59.11, πάσσισον 84.12 ~ πάσσισε 126.20. In the second person plural, one may again observe variation between -ατε and -ετε, e.g. καθοδηγήσετε καὶ διορθώσατε 337.2–3, πληρώσατε 324.20. The passive Present and Aorist second person singular ends in -ου, e.g. ἀλείφου 280(W125).18, προσεύχου 412.11, φυλάγου 20r(W228).13, ~ δέξου 291.7, στάσου 133.17, στοχάσου 11v-12r(W241–2).21–1.

Oxytone verbs

The text displays two tendencies: one for analogical spread of the endings of the barytone conjugation (γεννᾶ > γεννάει) and the other for analogical levelling between the A-stem and the E-stem paradigms (κρατεῖ > κρατᾶ). A number of originally barytone vowel-stem verbs have also joined this conjugation, e.g. μιθάει 97.15, φτεῖ 82.15, δὲν κλεῖ 308.4, δὲν ἀναλεῖ 310.1. The O-stem conjugation has been reformed as a consonant/barytone paradigm (-όω > -ώνω),[28] e.g. ἀπουνεκρώνει 316.6, θανατώνει 190.1, θαμπώνει 64.20.

28 For a historical overview of these developments, see Horrocks (2010: 305–6, 313–16).

Active voice

- *Present*: in the third person singular in the A-stem paradigm there is considerable variation between the older 'contracted' endings and the innovative 'uncontracted' ones, e.g. βαστᾶ 330.15, κολνᾶ 301.7, νικᾶ 7ν(W215).15, σταματᾶ 383.17 ~ βαστάει 158.8, βρωμάει 67.16, γεννάει 333.9, διψάει 116.15, κολνάει 83.18, ξερνάει 71.12, περνάει 382.12. Furthermore, there is variation between older E-stem forms and analogical A-stem ones, e.g. ζητεῖ 338.13, ἠμπορεῖ 337.20, καλεῖ 335.12, κακοπαθεῖ 333.10, κρατεῖ 334.9, πουνεῖ 339.10 ~ ζητᾶ 337.14, κατοικᾶς 195.20 ~ ἀρρωστάει 137.15, ἀστοχάει 128.5–6, κινάει 332.15, κοιλιοπονάει 337.18, ὠφελάγει 55.4, ὠφελάει 114.16. The second person singular is always contracted in -ᾶς and -εῖς, e.g. τρυπᾶς 295(W146).17, χαλᾶς 280.3, ~ ἠμπορεῖς 140.18, κρατεῖς 69.9, περπατεῖς 4ν(W209).7, while the first person plural in -οῦμε, e.g. πουροῦμι 10ν(W239).12. In the third person plural, variation exists between the older ending -οῦσι and the innovative -οῦν, e.g. γεννοῦσι 386.11, καρτεροῦσιν 148.12, πιπράσκουσι, ἤγον πουλοῦσι 7r(W214).3–4, ψοφοῦσιν 212.19 ~ νὰ ἀργαστοῦν 113.20, ὁμουλουγοῦν 128.3, νὰ χαθοῦν 194.19.
- *Imperfect*: in the third person singular one may observe the analogical accretion of barytone suffixes, e.g. ἐπαρακάλειεν 336.
- *Imperative*: the variation between oxytone and barytone suffixes can also be found in the second person singular imperative: ρώτα 160.10, φύσα 61.2 ~ κράτει 68.9 et passim ~ θώρειε 56.1–2.

Passive voice

- *Present*: A-stem verbs form the third person singular in -ᾶται, e.g. γιᾶται (passim), κοιμᾶτι 119.17, φοβᾶτι 289.19, χασμᾶτι 10ν(W239).5, χασμουρᾶται 161.1, while the form -ιέται appears only once: γιέται 96.8. The third person plural exhibits the forms -οῦνται and -ῶνται for both A- and E- stems, e.g. γεννοῦνται 135.8, πουλοῦνται 12r (W242).10 ~ φοβῶ(ν)τι 318.11.
- *Imperfect*: there are no instances in the text.
- *Future formation*: the inherited monolectic Future appears in the text in higher-register passages copying astrological and brontological texts, which include predictions for the future: ἀναχωρήσει 412.17, ἐρημωθήσεται 414(W205).17, ἐλαττωθήσεται 17r(W222).20, τὰ δένδρη εὐφορήσουσι 17ν(W223).18–19, ἕνας τὸν ἄλλον ἐπιβουλεύσουσι 18r(W224).14, τέξιται 334.10, οἱ ἀδικητάδις τιμωρηθήσονται 386.7. In lower-register sections, including the iatrosophic parts proper, a variety of future periphrases is used instead. These include:

(a) impersonal μέλλει + infinitive, e.g. μέλλει γενέσται 15r (W218.14), μέλλει ἀπολεσθεῖ 22v(W231).12;
(b) μέλλω + subjunctive, e.g. μέλλει νὰ γεννήσει 323.7, μέλλει τὸ φεγγάρι νὰ χαθεῖ 4r(W208).8;
(c) impersonal μέλλω + subjunctive, e.g. μέλλει φλεβοτομήσεις 161.6–7;
(d) θέλω + infinitive (the most common option), e.g. τὸν θέλει ψοφήσει 196.11, θέλουν χαλαζωθεῖ 12r(W242).21, θέλουν γένει οἱ ἄνθρωποι ὀργίλοι 9v(W237).9, τὰς θέλουμεν γράψει W234.1, θέλουν ἐρημωθεῖ 17v(W223).16;
(e) θέλω + subjunctive, e.g. ὅταν θέλει νὰ κοιμηθεῖ 317.13;
(f) impersonal θέλω + subjunctive, e.g. δὲν θέλει εὑρεῖς 282.4;
(g) θέ + subjunctive, e.g. θὲ νὰ τὸ βγάζεις ἀπὸ τὴν φωτίαν 383.5. The Present tense may also be used with future reference, e.g. ἄλειφε τὴν κεφαλὴν καὶ φυτρώνον 303.9–10, δὸς πίνε καὶ εἰς τὸν καιρόν της γεννάει 333.8–9.

- *Perfect and Pluperfect*: there are two only instances of Perfect formed with ἔχω + passive participle: ἔχον ἀνοιγμένα 140.21, ἔχουν φυλαγμένον καὶ ξαφρισμένον 100.2.
- *Infinitive*: the infinitive is retained in future formations, e.g. θέλει ταράξει 9r(W236).6, θέλει ἔχει τιμὴν 12r(W242).6 (see earlier for further examples), but may also be found with imperatives, e.g. δὸς τρώγειν 99.9, δὸς γλείφειν 99.14; and with prepositions, e.g. περὶ τεκνοποιεῖν ἡ γυναίκα 141.15.
- *Participle*: the text displays a full array of active and passive participles. Active participles are inflected following conservative third declension patterns for the masculine and neuter, e.g. ὁ ἐστίων τὸ μέλι 163.1–2, εἰς ἄρρωστον ἀγρυπνῶντα 155.10, τοῦ πάσχοντος 64.15, οἱ ἐν τροπικοῖς ἀγοράζοντες 7r(W214).2, οἱ ἀσθενοῦντες 22r(W231).19, ζῶντας καὶ νεκροὺς 163.20, ὁ ἐπὶ γῆς προτυπωθεὶς 291.4, μέλι τοὺ ἀρκοῦν 385.7, περὶ πράγματος ἀπωλισθέντος 13r(W244).9. Active feminine participles follow the first declension, e.g. ἀπουθνήσκουσα 7r(W214).4, εἰς ρίνα ρέουσα αἷμα 56.15, τὰς ρέουσας τρίχας 13v(W245).10, εἰς ᾽μορροῦσα γυναίκα 341.4, τῆς ᾽μορρούσας 341.7, ἡ δέσποινα ἡ τεκοῦσα 335.13–14. Once, a feminine form appears with a masculine participle, i.e. τρίχας πεσοῦντας 303.4, and there is also a single instance of an uninflected active gerund: ὠφελεῖ τοὺς γόφους πονώντα 271(W116).16. Present tense passive participles occur rarely, e.g. ἐνσταζόμενος 13r(W245).17–18, τῆς λεγομένης ράμνος 333.4, ἡ καλουμένη χορηγὸς 21r(W248).7, κεφαλῆς ἀδικωμένης 335.18. Most passive participles are in the Perfect tense, do not display reduplication, and are as a rule used as adjectives, e.g. ὁ πλευριτουμένος 114.15, κοιλία πρησμένη 195.15, ἀστέρα μελανέ, μελανωμένε 195.17–18, κρυωμένους καὶ πλευριτωμένους 21r(W248).1; πονιμένους ὀδόντας 21r(W248).5, ἀσθενημένη 341.10.

- *Copula*: the copula takes the form ἐστί(ν), εἰσὶν in the higher-register sections of the text, and εἶναι in the lower-register ones. The latter is an indication of the relatively recent dating of the text (forms such as ἔνι, ἔναι are absent).

1.3.3 Syntax

As mentioned above, the syntax of the text is simple and paratactic, consisting mainly of lists of items and short directives. However, it does display a number of subordinate clauses, such as:

- *Conditional*: Ἐὰν γενεῖ παιδὶ δὲν προυκόβει εἰς ἄτυχη ἡμέρα· ἢ ν' ἀγοράσει δὲν πιτυχαίνει· νὰ στρατεύσει, στρέφεται κατασκυμένος· νὰ πανδρευτεῖ, ἀστοχάει· σπίτι νὰ θεμελιώσει, δὲν στεριώνιται· καὶ ἁπλῶς εἰπέν, εἴτι δουλεία νὰ ἐπεχειριστεῖ ὁ ἄνθρωπος, δὲν προυκόβει 128.4–7 ~ ἂν τιναχθεῖ ὁ σκύλος, δὲν πιθαίνει ὁ ἀσθενής, εἰδὲ καὶ ἀργήσει νὰ τιναχθεῖ, ἀρρουστᾶ πουλλά, εἰδὲ δὲν τιναχθεῖ, ὀδεπουσῶς ἀπεθαίνει 140.13–15.
- *Temporal*: νίβε τοὺ πρόσουπον ὅταν ἔχει πανάδα 61.19 ~ ὁπόταν μέλλει νὰ γεννήσει, βάλε τα ἀπάνου 323.7 ~ Πόσις ἡμέρις εἶχεν ἡ σελήνη ὅταν ἐκατεκλίθη ὁ ἀσθενὴς 12r(W243).12 ~ καθὼς τοῦ δώσει μυρωδιὰ τοὺ δενδρουλίβανον, πάραυτα ψοφάει 320.11.
- *Causal*: νὰ μὴν τοὺ καταπίνε, ὅτι εἶναι καυτερὸν 86.3–4 ~ ἡ κοπριὰ τῆς κουρούνας εἶναι καλὴ πουλλά, διότι ἰατρεύει τὰ βρομισμένα χνῶτα 67.15–16.
- *Final*: βάλε τοὺ μαστίχι καὶ τὸ λιβάνι διὰ νὰ μὴν καοῦν 309.20–310.21–1 ~ Ἰδοὺ γράφομεν περὶ ἀγαθῶν καὶ πονηρῶν ζωδίων ἵνα γινώσκεις 10r (W238).12.
- *Relative*: τοὺ αἷμα ὁποὺ τρέχει 57.6 ~ ἕνα κακὸν τὸ ὁποῖον εἶναι κρύον καὶ ζεστὸν 110.13 (see further examples under relative pronouns).

A syntactic feature that deserves special treatment is the expression of the indirect object, as it is of major importance for geographical localisation. The dative case was in a process of obsolescence since the Hellenistic period, and must have disappeared from spoken language by the end of the tenth century AD, being replaced, depending on the geographical region, by either the genitive or the accusative case.[29] The dative case is, nevertheless, 'artificially' retained in written language until very late. MS.MSL.4103 does retain a few such instances of the dative case (e.g. εἶπεν αὐτῷ 336.3), although mainly in prepositional phrases, e.g. ἐν τῷ Κριῷ 412.1, ἐν τῇ χώρᾳ 148.17, ἐν τῇ φούσκᾳ 277(W122).17. However, the indirect object is mostly

29 For an overview of this phenomenon, its geographical distribution, and its variable attestation in Medieval and Early Modern texts, see Lendari and Manolessou (2003); for the modern distribution, see Manolessou and Beis (2006).

expressed through the genitive case, in variation with the accusative.[30] Examples include: δὸς παρθένον κορίτσι 337.16, δὸς τὸν πάσχοντα νὰ πίνε 111.14, δὸς πίνε ὅποιον τὸν πουνεῖ ὁ λαιμὸς 84.11–12, ἔδουκας αὐτὴν τὸν υἱὸν 324.17 ~ δὸς τοῦ πάσχοντος 64.15, δὸς ὕπνον τοῦ νηπίου 157.5, εἰπέ της 338.10. Sometimes variation occurs even within the same clause, e.g. δὸς αὐτὴν σπέρμα ὥσπερ τῆς ἁγίας Ἄννης 324.19. To a certain extent, this variation may be attributed to the multiple sources the scribe is copying from. But insofar as it also depends on his native idiom, it constitutes an indication of geographical provenance. The accusative case is characteristic of Asia Minor and Northern Greece as far as Thessaly, whereas genitive indirect objects characterise southern Greece including Epirus and Sterea Ellas, as well as the islands (Crete, Cyclades, Heptanese). The combination of northern vocalism with genitive indirect objects in our texts makes areas such as Macedonia, Thessaly, and Thrace less likely places of origin, and points instead to Epirus and Sterea Ellas. This is congruent with morphological indications, such as the adjectives in -γος mentioned above, as well as with lexical idiosyncracies (see p. 84), which can be attributed to the dialect of Epirus.

1.3.4 Vocabulary

The vocabulary of MS.4103 is of mixed provenance, and belongs to different registers. The bulk of the lexical material is common to all varieties of Greek, but one may additionally distinguish loanwords from various languages, and Greek words of a regional/dialectal character.

We should initially make a distinction between loanwords belonging to the specialised botanical/medical vocabulary and loanwords belonging to common everyday speech, as the former may have been copied from the text's model(s) or even from a glossary of iatrosophic terms [see e.g. the glossary of Nikolaos Hieropais, ed. Delatte (1939: 393–417)]. The scarcity of loanwords from Italian and the many loanwords from Turkish clearly indicate that the text originates from an area under Ottoman rule. A rough picture of the loan vocabulary, giving an idea of words of Turkish origin, can be gleaned from the list below:[31]

- *Italian/Romance*: ἀγκουσεύομαι (=suffer), βενέτικος, ζάρω (<*usare*), φουρτούνα (=heavy sea), πότζα (<*bozza*=bottle), σαλτάρω (<*saldare*

30 In many instances of masculine and neuter indirect objects, it is difficult to discern which case is intended, as the letter forms of <ν> and <υ> can be frustratingly similar in this manuscript.

31 For the etymological investigation of loanwords the following works were consulted: ILNE and ILNE archive; Andriotis (1974); Andriotis (1990); Bongas (1964/66); Kriaras, *Epit*.; Kriaras, *Lex*.; LKN; Meyer (1894); Minas (2012); Papahagi (1974); Redhouse (1968); Tselikas (2012).

=become healed). Special botanical/medical terms: βεντούζα (=cupping), κάντιο (<Ital. *candi*<Arab. *quandī*=sugar), καρτάνα (=quartan fever), μαλαφράντζα/μαλαθράντζα/μαλιφράντζα (<*male di Francia*=syphilis), μπετόνικα (=betonica), πιρούλα (<*pilula*=pill), (μέλι) ροζάδο (=containing flower petals), ρουσμαρίνι (<*rosmarino*=rosemary), τριμεντίνα (=turpentine), φουντανέλλα (=cautery). Some of these are obviously adopted from Agapios Landos' *Geoponikon*, parts of which are paraphrased in the text.

- *Turkish (and Arabic, Persian introduced through Turkish)*: ἀφιόνι (<*afyon*=opium), γιαρὰς (<*yara*=wound), δράμι, ζουλάπι (<*cülâb*=julep),[32] κατερποντζίκι (<*katır boncuğu*=cowrie shell), κατράνι (<*katran*=tar), μασούρι, ματζιούνι,[33] μπακίρ, νισεστέ, πάζι (<*pazı*), παζάρι, ρακί, σαλκάνι (<*şalgam*=turnip), σιρούπι,[34] στου(μ)πέτσι (<*üstübeç*=white lead), τσιαρσί (<*çarşı*=marketplace), τέντζερες, τσιρίσι (*çiriş*=asphodel gum), τσεκιρδέκι (<*çekirdek*=fruit seed, weight measure), τσινὶ (<*çini*=glazed), τσόχα, φλιτζάνι/φιλτζιάνι, χαλβάς, χαραρέτι (<*hararet*=fever), σιχάνι (<*sahan*), χοκὰς (<*hokka*=cup, pot), χουζουρεύω.

Special botanical/medical terms: ἀρσιπὲ (<*hiyarşembe*=cassia), γιβερτζιλὲ (<*güherçile*=potassium nitrate), (γ)κιούλσουι (<*gülsuyu*=rosewater), ἔγερ ὄτ (<*eğir otı*=sweet flag grass), ἐφθιμοὺν (<*eftimun*=clover dodder<Greek ἐπίθυμον), ἐφσεντὶν (<*efsentin*=wormwood), ζάμτι (<*zamki*=gum), ζουπὶλ χοντὶ (<*sümbül hindi*=Indian hyacinth, *Hyacinthus orientalis*), κακουλὲ (<*kakule*=cardamom), καρὰ χιλιλὲ (<*karahalilen*=black myrobalan), καραγκιολούκι (<*karagünlük*=*Styrax officinalis*), κασνὶ (<*kasnı*=galbanum), κιαμπαπὲ (<*kübabe*=cubeb pepper), καλὲμ κικούρτι (<*kalem kükürt*, *kükürt*=sulphur), κερεβὶζ τοχρὶμ (<*kerefs*=celery, *tohum*=seed), μαχμουτὲ (<*mahmude*=scammony), μιάμπαλη (<*meyan balı*=liquorice extract), μουρσάφι (<*mür*=myrrh, *saf*=pure, clear; pure myrrh), μουρτασάνι (<*mürdeseng*=litharge, lead monoxide), μοχοὺρ μεργιὲμ (<*buhur Meryem*=cyclamen), μπεζὲρ πέτζι (<*bezr*= seed, *benc*=henbane), μπελεσὰν τοχομοὺ (<*belesan tohumu*=balsam seed), νισιατίρι (<*nişadır*=sal ammoniac, ammonia), πὲς πὰς (<*besbase*= mace of nutmegs), πουχούρι (<*buhur*=incense), ραβέντι (<*ravend*=rhubarb), ραζιανὰ (<*rezene*=fennel), σαρὶ χιλιλὲ/χελιλὲν (<*sari helile*=yellow myrobalan), σερλαγάνι (<*şırlağan*=sesame oil), ταρτζὶν (<*tarçin*=cinnamon), ταριφίλφιλ (<*darifülfül*=long pepper, piper longus), τζιβίτι χιντὶ (<*cevzi hindi*=coconut), τζιαμσακίζι (<*çam sakızı*=pine resin), τζιντζιφίλι

32 Due to its early attestations (see LBG, s.v. ζουλάπιον), it is possible that this word was introduced directly from Arabic.

33 A direct Persian origin could be claimed for ματζούνι/ματζιούνι, since it is attested in Greek medical treatises well before the Ottoman period [see e.g. Kousis (1939: 211–17)], although its introduction into everyday language must have taken place through Turkish.

34 Alternatively, one could ascribe the introduction of σιρούπι to the mediation of Italian *siropo* rather than Turkish *şurup*.

(<*zencefil*=ginger), τζιρὸ ὄτ (<*zire*=black cumin – | *ot*=grass, herb, weed), τορποὺτ/τουρποὺτ (<*turp*=radish or *türbit*=turpeth, a laxative), τζιβίζι πεβὰ (<*cevzi bevva*=nutmeg), τιζερτιτζιάφι/ζερτιζάφι (<*zerdecav*= turmeric, *Curcuma longa*), τιμὶρ χιντὶ (<*demir hindi*=tamarind), χαβελτζιὰν (<*havlican*, *havlincan*=galingale), χασχάσι (<*haşhaş*=poppy).

- *Slavic*: (γ)κουστερίτσα/σκουτέρα (Bulg., Serb. *gušter-ica*=lizard), κουκόσια (<serb. *kokoška*=walnut), λοβοδία (Bulg., Serb. *loboda*=*Chenopodium rubrum*), μπρουσκλιανὴ (Bulg., Serb. *brusljan*=ivy), τσέργα (Bulg. *cerga*, Alb. *tšerge*=blanket); for some words the Slavic origin is contestable (γαρδαβίτσα/μανδραβίτσα, στουμπίζω, τσίπα,[35] τσουκάλι).
- *Albanian*: (γ)κορτσία (<*gorrice*), σιγκούνι (<*šigun*=coat), σκρουμπούνι (<*σκροῦμπος*< *škrump*=charred matter), (μ)πότσικα (<*botške*=squill, *Urginea maritima*), and possibly λουλούδι (of contested etymology, Alb. *lule* or Latin *lillium*).
- *Aromanian*: μαρκάτη (<*merkat*=buttermilk), μπράσκα (<*broască*=toad).

A number of Greek or foreign words found in our text have a distinct dialectal/regional colouring in Modern Greek as they are restricted to specific 'northern' dialects. These are the following: βέντζα (=Venetian sumac, Sterea Ellas, Euboea), κατεκνία (=fog, Sterea Ellas, Thessaly, Euboea), κουκόσια (Epirus, Macedonia), λοβοδία (Epirus, Macedonia), μανδραβίτσα (=wart, Epirus, Macedonia), μαρκάτη (Epirus, Macedonia), μούχλη/μούχλι (=mist, Epirus), μπράσκα (part of Sterea Ellas, part of Epirus, Thessaly), (μ)πρέκνα (=freckles, Epirus, Thessaly, Macedonia, Thrace, Sterea Ellas), μπότσικα (Epirus, Sterea Ellas), μπρουσκλιανὴ (Thessaly, Macedonia), τρέβλα (=purslane, Sterea Ellas, Thessaly, Macedonia), τσέργα (Epirus, Thessaly, Macedonia, Sterea Ellas, Thrace), τυροκόμος (=Egyptian vulture, neophron percnopterus; Thessaly, parts of Western Macedonia), χαμόρυγας (=mole, Epirus, Heptanese, Thessaly, Macedonia, in various forms).

A telling indication of the text's geographical 'naturalisation' to a northern idiom, especially the area of Sterea Ellas, is the following passage which constitutes a paraphrase of a chapter from Landos' *Geoponikon*. The content and structure of the original has been retained but its phonology has been affected by the 'northern vowel raising', while typical Cretan vocabulary has been replaced by local dialectal words (ἀβορδακός, ρόσπος → μπράσκα 'toad').

35 Again, it is possible to argue for an Arabic origin for this loanword; see Bouras-Vallianatos (2018: 182).

Agapios Landos, *Geoponikon*, ed. Kostoula (1991: 239)	MS.4103, pp. 300–1
Εἶναι τινὲς βάθρακοι μεγάλοι, ὡσὰν τὲς σουπίες, καὶ δὲν εἶναι εἰς τὸ νερόν, ὡσὰν τοὺς ἄλλους ἀβορδακούς, ἀλλὰ εἰς τὸ χῶμα κρύπτονται καὶ ὀνομάζονται φράγκικα ρόσποι. Ἀπὸ τούτους ξήρανε εἰς τὸν φοῦρνον, κάμε τους σκόνην. Ἔπειτα πρῶτον μὲν ἄλειφε τὴν κεφαλὴν μὲ ροδολάδιν καὶ τότε βάνε ἀπάνω αὐτὴν τὴν σκόνην, ὕστερα σκέπαζε τὴν κεφαλὴν μὲ φούσκα χοίρου καὶ ἂς κάμη ἔτσι δύο ἡμέρας. Ἔπειτα ἔβγαλε τὴν φούσκα καὶ πλύνε τὴν κεφαλὴν τοῦ κασιδιάρη μὲ τὸ κάτουρόν του δύο τρεῖς φορὲς τὴν ἡμέραν καὶ οὕτω κάμε πεντέξι φορὲς νὰ ἀλείφεσαι καὶ νὰ πλύνεσαι, ὡς ἄνωθεν, ἕως νὰ ὑγιάνης τέλεια.	Εἶναι βαθράκοι μεγάλοι ὡσὰν σοπιές, καὶ δὲν εἶναι εἰς τοὺ νερὸν ὡσὰν τοὺς ἄλλους βαθράκους, ἀλλὰ εἰς τὸ χῶμα κρύπτονται, καὶ ὀνομάζονται μπράσκις· ἀποὺ τούτους ξήρανέ του<ς> εἰς τὸν φοῦρνον, κάμε τους ὡσὰν ἀλεύρι· καὶ πρῶτας ἄλειφε τὴν κεφαλὴ τοῦ κασιδιάρη ‖ μὲ ρουδόλαδον, καὶ τότες βάλε τοὺ ἀλεύρι τῆς πράσκας ἀπάνου εἰς τοὺ κεφάλι, καὶ ἀπάνου βάλε σφούγγα χοίρου, καὶ ἂς κάμει ἡμέρας -2- καὶ ὕστιρα ἂς πλύνε τοὺ κεφάλι του μὲ τοὺ κάτουρόν του δύου τρεῖς φορὲς τὴν ἡμέρα, καὶ ἂς τὸ κάμει πέντι ἕξι φορὲς καὶ γιαίνει, νὰ πλένιται καὶ ν' ἀλείφεται.

2 MS.MSL.14

The following analysis of the language of MS.MSL.14 is based both on digital photographs (pp. 18–71, 73–6, 82–189, 191–317 of the codex),[36] and on the parts of the codex available in modern editions [*Iatrosophion* by John Archiatros, version ω, manuscript L, pp. 108–271, ed. Zipser (2009) 171–329; also Zipser (2008: 132–3, 2013: 257–8, 261, 264)], collated against the available photographs.[37] The codex contains several texts of different provenance, dating, and linguistic register and therefore does not present a homogeneous linguistic profile; nevertheless, they all belong to a higher or middle register, with occasional appearance of vernacular features. The highest concentration of vernacular features is observed in the *Iatrosophion* section, which occupies the larger part of MS.MSL.14. The codex is composite, consisting of two distinct parts (A and B, or L and l), which correspond to two different manuscripts bound together at some early point. Both parts have been localised to fourteenth-century Cyprus on the basis of palaeographic evidence [see Zipser (2009: 15–16); (2013: 251–2)]. The linguistic investigation of the texts

36 Photographs kindly provided by Petros Bouras-Vallianatos.

37 For a description of the manuscript and its contents, see Bouras-Vallianatos (2015: 283–6); see also Nutton and Zipser (2010) and Zipser (2009: 15–17).

contained in the codex has not revealed any features of a specifically Cypriot provenance, (or even/indeed of any other dialectical area), as will be explained below. This investigation is at times inhibited by the editorial practices adopted in the extant editions (mainly of the *Iatrosophion*), which often do not offer an accurate linguistic picture.

The main problem lies in the levelling of the text's linguistic profile through massive but non-systematic editorial intervention, which consists in normalisation towards an undefined form of 'Modern Greek' alongside a self-admitted 'conversion back to the classical form' of words [Zipser (2009: 346)]. This 'standardisation' is not always recoverable from the apparatus criticus (as the changes are not consistently recorded), or the Appendix, which gives a list of the words affected without providing specific textual references that would allow one to gauge the extent of the obscured or erased phenomena.

Another problem is the inconsistent, even incomprehensible, spelling and word division system adopted at times by the editor, especially in the case of lower-register/vernacular elements. Examples include: (a) erroneous spelling or accentuation, e.g. ὑδρώνουσι for ἰδρώνουσι, μαλία for μαλλία (192.2 et passim), νήστικον for νηστικὸν 197.12, κουκουναρία for κουκουνάρια 198.17, νέφρα for νεφρὰ 181.19, μὴ δείπνας for μὴ δειπνᾶς 198.22; ζώντανα for ζωντανὰ 199.12; πλεύρα for πλευρὰ 200.15; (b) word division: either one word written as two, e.g. αὐγοῦ τζικὸν 202.13–14, ὀλίγου τζικὸν 237.9, πλέο τερί τζην 252.8–9, instead of αὐγούτσικον, ὀλιγούτσικον, πλεοτερίτσιν; or two words written as one, e.g. λυθρινάριαστακοί 199.14; or erroneous word division, e.g. οὐ τάδε ποίει instead of οὗτα δὲ ποίει 180.5;[38] (c) unnecessary 'remedy' of rather regular phonetic changes, e.g. syncope: κορυφὰς for κορφὰς (189.18, 189.20); aphaeresis: δι' ἐκεῖνα for διὰ κεῖνα (264.16); non-etymological vowels at word boundaries: e.g. ἠστίαν (=ἰστίαν) corrected to ἑστίαν (178.8); raising due to velar environment, e.g. κουκκία corrected to κοκκία 213.9, σκουλήκια (σκουλίκια ms) corrected to σκωλήκια 309.18.

Morphological interventions include: πότισε corrected to πότισον 284.14–15, χωρέση corrected to χωρήσῃ 186.12, ὠφελεθεῖ (ὠφελεθῆ ms.) corrected to ὠφεληθῇ 191.21, ἂν γένει (ἂν γένῃ ed.) corrected to ἂν γένοιτο 222.14, δύναται ἀκούση (=ἀκούσει, innovative Aorist infinitive) to δύναται ἀκούσαι 187.3, ἀχέλιν ζῶντα 282.3 corrected to ἔγχελυν ζῶντα (probably due to non-recognition of the innovative neuter singular participle form ζῶντα =τὸζῶν), ἃς γένηται for ἃς ἐγένη 263.5–6.

We can begin by discussing the manuscript's geographical provenance, to the extent that this can be revealed through its language. The first and basic observation is that the text of MS.MSL.14 (or of version ω of the *Iatrosophion* for that matter) cannot be considered 'dialectal' [*pace* Zipser (2009: 14)] under any definition of the term. It belongs to a middle register of

38 For the attested but non-standard neuter plural form οὗτα of the pronoun οὗτος, αὕτη, τοῦτο, see Holton et al. (2019, vol. II: 969).

Medieval Greek retaining several archaic elements, presenting a certain amount of variation, and without any local colouring. Judging from other published texts, it resembles strongly the language of the text of Parisinus gr. 2315, published by Émile Legrand [(1881: 1–17); commonly known as *Iatrosophion of Staphidas*], being perhaps slightly more conservative.

There are no features specific to the Cypriot dialect in the language of MS.MSL14. First, Cypriot phonetic phenomena are absent, especially the characteristic gemination of consonants. A check of typical words presenting the so-called innovative 'spontaneous gemination'[39] such as μύττη, ἀππίδια, αἰσθάννεται, θέττε, has revealed that they are regularly spelt with a single consonant in both parts of the codex. On the contrary, such geminate spellings do occur with relative frequency in another witness of the *Iatrosophion*, namely Monacensis gr. 288.[40] Examples from Monacensis include: πίννη (=πίνει) ff. 10r, 10v, 48r, 48v, 49r; μύττη(ν) ff. 10v, 24v, 37v; 76v; ἅπλωννέ τα ff. 13r, 24r; ἁπλώννη f. 42r; τῆς παλλιουρέας ff. 16v, 73v; μαρούλλια f. 43r; σκύλλοι f. 58v; σκυλλόπουλλα f. 59v. Second, the text of MS.MSL.14 displays a complete absence of recognisably Cypriot inflectional suffixes and local vocabulary, as well as absence of French loanwords. Finally, the systematic expression of the indirect object through the accusative and not the genitive case (e.g. τὰ ἄλλα τὰ σὲ εἶπα 178.7), as is regular of Cypriot since its earliest attestations [see Lendari and Manolessou (2003)], is yet another indication that the text's provenance is not Cypriot.

The linguistic analysis of the text is further complicated by factors similar to those discussed in the case of MS.4103 above, namely the mixture or registers deriving from the transposition of an older, higher-register text to a lower register (which cannot, however, be equated to everyday language), and the limited grammatical and semantic range of the text, which consists mostly of paratactic lists and short imperative directives. The first of these factors is responsible for the phonetic and morphological variation to be found in MS.MSL.14 and the second for the lack of data concerning many slots of the nominal and verbal paradigms, as well as syntactic features (Past, Perfect and Future forms, first and second persons, complex sentences etc.).

Keeping in mind the above restrictions, we attempt below to provide a linguistic description, first, and in greater detail, of the section containing the *Iatrosophion* (which, as described above, occupies the greater part

39 For the phenomenon see Holton et al. (2019: 135–7).

40 The text of Monacensis gr. 288 was collated from the online digital photographs provided by the Bayerische Staatsbibliothek, at http://daten.digitale-sammlungen.de/~db/0004/bsb00049972/images/index.html (accessed, 1 March 2019). The geminate spellings are not recorded in the edition's apparatus criticus, only in the Appendix in the list of 'Words standardized to classical spelling' [Zipser (2009: 343–5)], but without textual references or specifications as to which witness of the text they are taken from.

Figure 4.3 Londiniensis Wellcomensis MS.MSL.14, pp. 182–3.
Photograph by Petros Bouras-Vallianatos.

of MS.MSL.14 and exhibits the highest frequency of vernacular features), and, second, of the other parts of the codex to which access was available.

2.1 Detailed linguistic analysis of MS.MSL.14: Iatrosophion *by John Archiatros*

As is the case with many texts of the period, the language of the *Iatrosophion* as transmitted in MS.MSL.14 presents a certain degree of variation. Typical instances include: the omnipresent alternation of the third person plural endings -ουν and -ουσιν, the contrast between conservative Aorist imperative in -ον and the innovative analogical ending -ε (e.g. βράσον vs. βράσε), the presence or absence of reduplication in the passive Perfect participle (e.g. τετριμμένα vs. τριμμένα), and feminine endings -έα vs. -ία (occasionally with hypercorrections, e.g. κορασέαν 266.23, σκουρέαν 275.2).[41]

41 Textual references are to the edited text [Zipser (2009)] by page and line number; the readings were checked against the manuscript.

2.1.1 Phonology

A VOWELS

An indication of the relatively early dating of the text is the absence of synizesis in sequences where the first vowel is stressed, e.g. βυζία, κοιλία, κουκκία, οὐγγία. On the other hand, a number of innovative features involving vowels appear in this text:

- *Raising of [o] to [u] next to velar and nasal consonants*: e.g. σκουλήκια 309.18 (σκωλήκια ed.), ρουθούνι 189.2, κουκκία 181.7, κουρούνα 232.1.
- *Backing of [i] to [u]*: e.g. ἀξούγγι (passim); φλούδιν 182.3, φούσκα 200.9, and the hypercorrection λυπινάρια 182.16.
- *Change of [i] to [e]*: e.g. σιδέρου 185.3, τῆς ἐτέας 180.16 (ἰτέας ed.).
- *Deletion of initial vowel*: e.g. στέον 230.13 (ὀστοῦν ed.), ψάριν 179.10.
- *Non-etymological vowels in initial position*: ἰστίαν 178.9 (ἑστίαν ed.), ἀχέλιν 282.3 (ἔγχελυν ed.).

B CONSONANTS

The most obvious phenomenon affecting consonants is the retention and addition of final [n] in inflectional suffixes, e.g. βραδὺν (βραδὺ ed.) 199.2, κατούρημαν (κατούρημα ed.) 200.10, στόμαν (στόμα ed.) 278.3, ὀξύγαλαν (ὀξύγαλα ed.) 262.13. A relatively frequent phenomenon is the interchange of the liquid consonants [l] and [r], e.g. ἔμπραστρον 193.8 (ἔμπλαστρον ed.), βαρσαμέλαιον 230.9, τὰ λεγόμενα παρὰ τῶν ἰδιωτῶν ἐρμίγγια παρὰ δὲ τῶν ἰατρῶν ἔλμινθας 290.3–4, εὐφόλβιον (=εὐφόρβιον) 209.9, τὰ λυθρινάρια 199.14. Another vernacular feature is the deletion of intervocalic [ɣ/j] in the inflection of the verb τρώγω, e.g. ἂς τὰ τρώει 298.1. There are no traces of the phenomenon of palatalisation of velar consonants (tsitakismos) which could have constituted an indication of Cypriot provenance. Similarly, the phenomenon of manner dissimilation in consonant clusters is almost totally absent, i.e. the sequences [kt] and [xθ] are not changed to [xt], and the sequences [pt] and [fθ] are not changed to [ft]. An exception is the sequence [sx] which does present dissimilation to [sk], albeit very rarely, e.g. ἂς μοσκέψει (μοσχεύση ed.) 218.12, βλησκούνιν 222.8.

2.1.2 Morphology

The general picture presented is conservative, but with a number of innovative variable features.

A NOMINAL

Nominal inflection can be described in terms of the traditional distinction of first, second, and third declension. Among the innovative features one can mention the following:

- The genitive singular of feminines in -α is -ας, e.g. θύννας 322.9, κουρούνας 232.4–5, ρίζας 215.8, σκρόφας 237.18. As far as consonant-stem nouns are concerned (former third declension), one can detect a tendency towards levelling, e.g. ἀσπίδα (nominative) 281.16, ἡ σπλήνα 203.8, τὴν σπλήναν 203.4, κέρατον αἴγας 210.1, τὴν ρίναν 227.14, τὴν χεῖραν 321.11; hypercorrection αἱ τρίχαι 217.7, 218.6, 219.1.
- The very rare occurrence of -ες instead of -ας in the feminine nominative and accusative plural, e.g. ἡμέρες 245.11, τέσσαρες φορὲς 268.16–7 (φοραῖς ed.).
- In the second declension, the appearance of neuters in -ιν instead of -ιον, e.g. κρασίν, ἀλεύριν, ὀξίδιν (passim).
- The innovative inflectional class of feminine nouns in -ού, e.g. genitive ἀλωποῦς 243.9.
- Some neuter nouns present the inflectional forms of the third declension s-stems, e.g. τὸ οὖρος 187.18, τὰ οὔλη 189.16.
- In adjectival inflection the greatest interest is presented by the small category of adjectives in -ύς, which exhibits various innovative forms, e.g. δριμέου χυμοῦ 235.3, χυμοὺς παχέους 265.18, ἡ ὀδύνη τῆς κεφαλῆς ὀξέα γίνεται 252.2, νὰ ἔνι παχέα 267.1, γλυκὺ κρασὶν 247.4, γλυκέου γάλακτος 204.9, ὄξους δριμέου 262.13, ἀμύγδαλα γλυκέα 247.17, τὰ δριμέα πάντα 117.13, 178.15.
- In the pronominal domain, a vernacular feature of the text is the presence of weak forms of personal and possessive pronouns (clitics), which follow specific rules of placement,[42] e.g. ἅπλωνέ τα εἰς τὸ πανὶν καὶ θέτε τα εἰς τὴν σπλήναν 203.3–4, ἃς τὴν τρώγει 283.13–14, ἔδειρέν τον ὁ ἥλιος 228.16, τῶν κοκκίων τους 259.21, αἱ μασχάλαι των 261.10. Another interesting, typically medieval, feature is the definite article as a relative pronoun, e.g. μὲ τὸ ἔλαιον τὸ ἀπομένει εἰς τὸ λυχνάριν 222.15, ἐκεῖνο τὸ ρέει ἔνι παχὺν (παχὺ ed.) 229.15, ἃς ἀπέχει καὶ τὰ ἄλλα τὰ εἶπα 178.7. Relative clauses are also introduced by the uninflected relative adverb ὁπού, e.g. τοῦ ἀρρώστου ὁποὺ ἔχει τὰς ἐξωχάδας 207.15–6, γυναίκα ὁποὺ δὲν δύναται νὰ γεννήσει 285.7, τὸ πάθος ὁποὺ (ὅπου ms., που ed.) ἔνι εἰς τὰ βυζία 260.14. Ὁποὺ can also introduce indefinite headless relative clauses, e.g. ὁποὺ κατουρεῖ αἷμα, ποίησον θεραπείαν τοιαύτην 316.4.

Of course, the text presents a wide range of ancient relative pronouns, such as: κρόκον ὃν βάνωσιν 178.1, τὸ πέπερι ὃν τρώγομεν 263.9 (note the analogical final -ν in the neuter); ἣν καλοῦσιν οἱ ἰατροὶ ἑκτικὸν 253.3–4, τοιαῦτα ἅτινα ὀνομάζουσι θερμὰ 257.2. Note also the presence of the indefinite pronoun εἴτις, e.g. πρὸς εἴτινος ἀνθρώπου ὁ κῶλος ἐβγαίνει 323.6, ξερᾶ εἴτι ἐὰν φάγει 193.21, εἴτι (ἤτοι ed.) πρᾶγμα ψυχρὸν 267.11; the univerbated form

42 See Mackridge (1993); Pappas (2004).

τίποτε, e.g. νὰ μὴν ἔχει τίποτε λιπαρότητα 206.2, ἐὰν δὲ ἄλλο τίποτε πέσει 186.10, ἂς προσέχει δὲ μὴ τρώγει τίποτε παστὰ ἢ κρέας ἢ ὀψάρια 265.1; and the residual form ὅπερ, e.g. τοιοῦτον ὅπερ ἔχουσι οἱ ἰατροί, ὅπερ καλεῖται ὠτικὸν 184.21–2.

B VERBAL

A conservative feature of the text consists in the retention of forms of -μι conjugation, e.g. συνίστανται 173.19. In the barytone conjugation (verbs in -ω) the only forms attested are the third person singular and plural, except in conditional clauses, e.g. ἐὰν θέλεις, ἐὰν ἔχεις. As already mentioned, the third person plural varies between -ουν and -ουσιν, e.g. ἂς βράσουν 180.1, ἔχουν 197.11, πιάνουν 229.3, βλέπουσι (βλέπωσι ed.) 215.15, πίπτουσιν 217.17, ρέουσιν 185.16, and the difference between the indicative and the subjunctive is purely orthographic. In the oxytone conjugation (verbs in -ῶ) the ending -οῦσι(ν)/-ῶσι(ν) dominates over -οῦν, e.g. ἀνορεκτοῦσιν 262.15, βρωμοῦσι 261.14, κατασχισθῶσι 270.16, πηδῶσι 225.5.

The expression of the subjunctive through the particles νὰ and ἂς is fully developed and constitutes one of the typical markers of lower linguistic register. In the imperative the second person always ends in -ε in the Present (e.g. ἄλειφε 190.13, δένε 189.2, θέτε 189.4, τρίβε 198.11), while it varies between -ε and -ον in the Aorist, e.g. τάραξέ το καὶ στάξον 186.16, βράσον 187.10, βρέξε 192.20, καῦσε 188.18. Similarly, oxytone imperatives end in -α for a-stem verbs and -ει for e-stem verbs, e.g. ἐμφύσα 189.1, κράτει 191.12, οἰκονόμει 225.9, ποίει 223.11.

In the passive voice, there is no difference between the indicative and the subjunctive, and only the third person singular and plural are attested. The third person plural ends in -ονται: γίνονται 231.4. The passive imperative ends in -ου: κτενίζου 219.6, μυρίζου 228.6.

Past forms are very rare, e.g. εἶπα 178.7, εἶπον 223.3, ἐχώνευσεν 226.4, ἔδειρεν 229.9, ἔπεσαν 235.8; οἱ πάλαι τοῦτο ἐποιοῦσαν (ἐποίουσαν ed.), εἴχασιν 267.2. The Future is expressed through the periprasis θέλω + infinitive, e.g. εἰς μίαν αὐτὸν δὲ θέλεις νοήσειν 225.1–2, θέλει γεννήσειν 285.9. The Perfect and the Pluperfect are not attested. The infinitive is mostly replaced by νά clauses, e.g. ἐνδέχεται δὲ τούτοις ἵνα στάξεις εἰς τὸν ὀφθαλμὸν 184.14, ἐὰν θέλεις ἵνα αὐξήσουν αἱ τρίχαι 218.11, ἐὰν θέλεις νὰ ποιήσεις ξανθὰς τρίχας 219.7, but it is preserved in future periphrases.

In the domain of the participle, most of the classical forms are retained, e.g. active participles of the Present and the Aorist, such as ἐκζέσας 177.17, ἑνώσας 181.4, κοπανίσας 185.20; and, of course, the passive Perfect participle, usually without reduplication, e.g. βρεμένον 213.13, γαμημένην 267.3, κοπανισμένα 193.14, φύλλα ξηρὰ τετριμμένα καὶ πέπερι τριμμένον 264.3. The

innovative uninflected active gerund in -ώντα(ς), -οντα(ς) is not attested, but there are a few instances of the ending -ωντα, -οντα of the uninflected active participle, e.g. ἀχέλιν ζώντα (neuter) 282.3.

The copula appears only in the third singular and plural. The most frequent form is ἔνι, but one may also find ἔναι, ἔναιν, ἐστί, εἰσί, and εἶναι.

2.1.3 Syntax

As discussed above, the syntax of this text is relatively simple and paratactic, presenting mostly short main clauses in the imperative. However, one may also find relative clauses (see relative pronouns above), conditional clauses, and some temporal clauses, e.g. ὅταν κατουρεῖ καὶ στάζει ὀλιγούτσικον 199.7–8, ὅταν πρησθεῖ τὸ ὅλον σῶμα 201.19, ἀφότου διάβουν δέκα ἡμέρες 245.11, ἐὰν δὲ οὐδὲν ὠφελεθεῖ (ὠφεληθῇ ed.) 191.21.

An important syntactic feature of the text is the replacement of the dative case by the accusative in the functions of the indirect object and the ethical/personal dative, which, as already mentioned, speaks against any hypothesis of a Cypriot origin for this text. Examples: καὶ αὐτὸ εἶπα σε πῶς σκευάζεται 265.19, δός τα ἄλλην γυναίκα 288.8, δὸς αὐτὴν καὶ ἂς τὸ φορεῖ 300.12; εἰδὲ φαίνεταί τον 224.3, ἐὰν συμβεῖ τὴν γυναίκα τὴν ἐγγαστρωμένην 288.13.

Two more vernacular features are: the negation οὐδὲν and μηδὲν instead of οὐ and μὴ with which they alternate, e.g. ἐὰν δὲ οὐδὲν ὠφελεθεῖ (ὠφεληθῇ ed.) 191.21, ἵνα μηδὲν ξερᾶ 300.14, and the repetition of the definite article with an adjective preceding the noun, e.g. εἰς τὸν μικρὸν τὸν δάκτυλον 202.21.

2.1.4 Vocabulary

Another indication of the text's relatively early date is the virtual absence of loanwords of Italian and Turkish provenance.[43] The totality of the lexical material is inherited Greek with the expected early Latin loans, e.g. ἄσπρος, ἀξούγγι, ἐξάγιον, σακελλίζω, and isolated Slavic loans, e.g. πέστροβα, τσουκάλι (of contested origin).

There are many interesting items in the vocabulary of the text; nevertheless, these are not unique to manuscript MS.MSL.14, but belong to the vocabulary of version ω in general, or even to version א as well.[44] Some of

43 The lexical investigation was based on: Andriotis (1990); *Thesaurus Linguae Graecae*, at http://stephanus.tlg.uci.edu/ (accessed, 1 March 2019); LBG; Kriaras, *Lex.*; Kriaras, *Epit.*; ILNE – ILNE archive.

44 On versions א and ω of the *Iatrosophion*, the witnesses, and sigla see Zipser (2009: 6–7, 13–19, 53).

these words are, so far, only attested in this group of texts, as well as closely related manuscripts, especially the so-called *Iatrosophion of Staphidas* (Parisinus gr. 2315),[45] e.g. ἀκροάγουρος, ἀκρόξανθος, λούξικας, πέστρουβα/πέστροφα, καυλώνω, ὀρνιθερός. For another set of words and forms, MS.MSL.14 comprises the earliest known source to date, e.g. ἀβγούτσικον, γαϊδάρα, γαληνούτσικα, κλουκουνίζω, μαγκούνα, πλεοτερίτσιν, τυρώνω, τσουκαλόπουλο, φαγώνομαι.

2.2 Detailed linguistic analysis of MS.MSL.14: other sections

As mentioned above, the other sections of MS.MSL.14 belong to a middle or higher register and exhibit fewer vernacular elements and less variation than the *Iatrosophion* by John Archiatros. Since the linguistic profile of these texts is not unified, and since they are quite short (something which does not permit a detailed description), the following discussion will consist of a small textual sample for each section, accompanied by a brief linguistic comment concentrating on the vernacular features.[46]

2.2.1 Anonymous collection of remedies [pp. 18–34]

(i) [pp. 19–20] Περὶ κυπρίνου στέατος. Κυπρίνου τὸ στέαρ σὺν τὸ ἦπαρ καπνιζόμενα δαίμονας διώκει. Κυπρίνου χολὴ πᾶσαν ἀμαύρωσιν ἰᾶται ἐγχριομένη. Κυπρίνου στέαρ συνουσίας ἐστὶν ὀρμητικόν· ἐάν τις αὐτὸ τήξῃ καὶ χρίσῃ τὸν βάλανον, σύλληψιν ἐργάζεται. Κόρακος ὠὸν μετὰ ἐρυθριδανοῦ τρίψας ἄλειφε τρίχας κεφαλῆς καὶ αὐθωρὸν βά‖ψεις ταῦτας μέλαινας ἄκρως ἕως οὗ ζῇς. Κόρακος μεγίστου τὴν κεφαλὴν ὀπτήσας καὶ λειώσας μετὰ οἴνου δὸς πιεῖν τῷ μεθύσῳ (μεθύσων ms.) καὶ μισήσει τὸν οἶνον. Κόρακος ὠὸν μετὰ σαπωνίου ταράξας πρὸ βαλανείου κατάπλασσε ἀνθρώπου πρόσωπον ἔχον ρυτίδας καὶ οὐχ ἕξει ταῦτας. Κώνωπας ἐκδιώκει καλακάνθιον καὶ μελάνθιον καὶ κύμινον ὑποθυμιώμενον.

(ii) [p. 24] Μαινίδα θαλάσσιος ἰχθύς ἐστι, ἣν οἱ ἁλιεῖς σμαρίδα καλοῦσι· κόψον ταύτης τὴν κεφαλὴν καὶ καύσας τρίψον καὶ ἀναλάμβανε μέλιτι καὶ ἐπίχριε καὶ ἐπίπασσε τὴν ἕδραν καὶ θεραπεύσεις πᾶν ἀφεδρῶνος πάθος καὶ διάτρησιν.

Νήσσης (Μήσσης ms.) ποταμιαίας τὸ αἷμα θερμὸν ἢ ξηρὸν σὺν οἴνῳ ποθὲν σώζει τοὺς πιόντας παντοίων δηλητηρίων.

45 See Zipser (2009: 22–3).

46 Textual references in sections 2.2.1 to 2.2.7 are to manuscript pages. Spelling is normalised.

As is obvious from the excerpts above, the language of this section (a collection of remedies based on older medical works)[47] is a form of late Antique Koine, adhering to the grammatical rules of Ancient Greek (allowing, of course for lapses due to copying errors). In general, it presents very few innovative features, and these are mainly in the domain of the vocabulary, e.g. βερικοκοκκέα 21, πανίον 23, σαπώνιον 20, ροῦχον 32, σαγίον 32, σαυρίδιον 23. Note also the nominative singular μαινίδα (24), instead of μαινίς. This form of language is typical of technical treatises, including medical works, and has been studied in the past within the framework of *Fachprosa*.[48]

2.2.2 *Pseudo-Hippocrates,* Sayings about Life and Death *[pp. 34–41]*

> [pp. 36–7] Ὡσαύτως ἐὰν ἐπὶ τῶν ὀδόντων καὶ τοῦ στόματος πάθει εἰ κάμνει καὶ τοῦ τραχήλου αἱ φλέβες ἐκτεταμέναι ὦσι καὶ ὡσανεὶ κωφὸς γένηται καὶ ἐὰν φλυκτίδας πεπυρακτωμένας ἐπὶ τῶν φλεβῶν σχοίη καὶ μία λευκὴ ἐὰν γεννηθείη καὶ ἐὰν ἐν τῇ ἀρρωστίᾳ ἀτμοῦ ἢ βαλανείου ἐπιθυμήσειεν, εἰς η΄ ἡμέρας ἀποθανεῖται. Αὕτη ἡ νόσος συμβαίνει τῶν τῶν θερμῶν λουετρῶν ἐφιεμένων. Ὡσαύτως οὗτινος ἡ σταφυλὴ ὑπαίτιος ἐστὶν ἐὰν ὑπὸ τὴν γλῶσσαν αὐτοῦ φλυκτίς· ἐὰν ἀναφανῇ καθάπερ μικρὰ φακῆ εἴτε λουετρῶν ἢ ἀτμῶν ἐπιθυμήσῃ καὶ τὸ πάθος μετὰ πυρετοῦ καὶ ἀπεψίας γένηται, οἴδημά τι μικρὸν μέλλει εἰς τὸν μέγαν δάκτυ[λον] ‖ τοῦ μικροῦ ποδὸς γένηται, εἰς κ΄ ἡμέρας ἀποθανεῖται. Ὡσαύτως ἐπὶ τῶν ὀξέων πυρετῶν τοῦ στομάχου. Ἐὰν ἐν τῷ δεξιῷ ποδὶ φλυκτίδα σχοίη ἐν τῷ πέλματι, οὐχ ὑψηλὴν ἀλλ᾽ ὁμαλήν, καὶ χυμὸν μελάντερον ἕξει, οὐδεμία δὲ ἔφεσις τοῦ τραφῆναι ἰσχύει, εἰς κβ΄ ἡμέρας ἀποθανεῖται.

The text is a hitherto unknown version of the Pseudo-Hippocratic 'Capsula eburnean' [published by Sudhoff (1915)], and presents minor differences with the published text. The linguistic style is elevated, aspiring to classical standards. Typical of this style is the preponderance of the dative case, as well as the use of the ancient monolectic Future and the optative mood (even with ἐάν). There are barely any concessions to vernacular language, no low-register vocabulary, and only one or two instances that might

47 The diverse sources of this section may be well worth investigating, as a preliminary search showed that there are many parallel passages with the *Kyranides*, and other medical compilations. See e.g. *Kyranides*, 4.37.5–7, ed. Kaimakis (1976): ἔστι δὲ τὸ στέαρ συνουσίας ὁρμητικόν, ἐάν τις αὐτὸ τήξας χρίσῃ τὴν βάλανον τοῦ μορίου· καὶ εὔχροιαν καὶ σύλληψιν ἐργάζεται παραχρῆμα.; see also de Mély (1898: 112): Ἔστιν δὲ τὸ στέαρ συνουσίας ὁρμητικόν· ἐὰν δέ τις αὐτὸ τήξας χρίσῃ τὴν βάλανον τοῦ μορίου, καὶ εὔχροιαν καὶ σύλληψιν ἐργάζεται παραχρῆμα. The assortment of learned sources may account for the generally elevated style of this section.

48 See Rydbeck (1967); van der Eijk (1997) with relevant literature.

betray a command of classical language that is not entirely thorough, e.g. ἐθεάσατο τὸ μνημεῖον αὐτὸ τοῦ Ἱπποκράτους (instead of αὐτοῦ); λαχάνου ὀφθοῦ 39 – instead of ἐφθοῦ or ὀπτοῦ. The morphology of the text is virtually standardised without variation. Of special interest, is the rarely attested use of impersonal μέλλει + bare subjunctive as a Future periphrasis, e.g. μέλλει (…) γένηται 37 [on the construction see Holton et al. (2019: 1776)].

2.2.3 Anonymous collection of remedies [pp. 41–4]

> [p. 41] Καρύας ρίξας χλωρᾶς τὸ δέρμα καὶ ἀξούγγιον χοίρου καὶ ἅλας κοπανίσας καὶ πέπερι σμίξας καὶ τρίψας, βάλε ἀμφότερα εἰς τσουκάλιον καὶ ὄξος δριμὺ καὶ ἔψησον καὶ δὸς ἀλειφθῆναι εἰς τὸ λουετρόν.

This is a very brief section, containing a mixture of medical recipes and healing incantations. It does not present particular interest from a linguistic point of view, as it follows the grammatical rules of Koine Greek. One innovative grammatical feature is the expression of the imperative through the particle ἄς, e.g. ἃς γράφει 42, ἃς φορεῖ 42. There are no instances of linguistic variation, but one may detect a small number of innovative lexical items, e.g. ἀξούγγιον 41, καυκί(ον) 43, τσουκάλιον 41.

2.2.4 Pseudo-Esdras, On Illuminating Days *[pp. 44–6]*

> [p. 45] ὁ ἀσθενῶν ἀρξάμενος οὐκ ἀνίσταται, ὁ γάμον ποιῶν οὐ χαίρει, τὸ γεννώμενον οὐ ζεῖ, ὁ εἰς πόλεμον ἐρχόμενος οὐ κατευοδοῦται, ὁ εἰς κρίσιν ἀπερχόμενος ἀποστρέφεται κατησχυμμένος, ὁ πραγματευόμενος ἀπόλλυσι πάντα καί, ἁπλῶς εἰπεῖν, πάντα τὰ ἐν αὐταῖς πραττόμενα καὶ ἀρξάμενα εἰς ἐναντιότητα ἀποβαίνουσι.

This very short text consists mainly of a list of auspicious and inauspicious days which, of course, does not lend itself to linguistic analysis, as it only contains one or two paragraphs of running text. It is written in a high-register Koine without variation or vernacular features.

2.2.5 Anonymous collection of recipes [pp. 47–54]

> [p. 49] Σκευασία ὁ ξηρὸς διοσπολίτης· πεπέρεως λίτραν α΄, κυμίνου λίτρα α΄, πηγάνου λίτρα α΄, νίτρου λίτρα α΄. Τὸ κύμινον ὀφείλει ἀποβρέχεσθαι μετὰ δριμυτάτου ὄξους πρὸ μιᾶς ἡμέρας τῆς σκευασίας αὐτῶν, κατὰ δὲ τὸν τῆς σκευασίας καιρὸν φρύττεσθαι ἐν πεπυρακτωμένοις κεράμοις μέχρις ὅτου γένηται ἐπιτήδειον εἰς τὸ κόπτεσθαι.

The section comprises a series of recipes (‘σκευασίαι’) presented in the form of lists of ingredients and their required quantities, with an occasional

sentence on the method of preparation. These short sentences are, again, rendered in a high-register style following the rules of classical grammar without variation or vernacular features.

2.2.6 Anonymous collection of remedies [pp. 84–107]

> [pp. 94–5] Εὐχὴ ὁπότε κρατηθεῖ τὸ ἄλογον διὰ φλεγμὸν οὔρου καὶ οὐκ ἠμπορεῖ νὰ κατουρήσει. Ἐν ὀνόματι τοῦ Πατρὸς καὶ τοῦ Υἱοῦ καὶ τοῦ Ἁγίου Πνεύματος, ἅγιοι μάρτυρες Φλῶρε καὶ Λαῦρε, βοηθήσατε· τὸ ὀρνίθιν νερὸν πίνει καὶ οὐ κατουρεῖ· ὁ ποντικὸς νερὸν οὐ πίνει καὶ κατουρεῖ· καὶ σύ, τὸ τοιοῦτον ζῶον, διατὶ οὐ κατουρεῖς; Ἀλλὰ διὰ τῶν πρεσβειῶν τῶν ἁγίων μεγάλων μαρτύ||ρων τοῦ Χριστοῦ Φλώρου καὶ Λαύρου, ἵππε κατούρησε.[49]

The larger part of this section consists of healing instructions and recipes for treating various ailments (some of them repeated), interspersed with charms (see, e.g., the sample above [pp. 47–54]). Its language is not homogeneous; it is mostly middle register, but with vernacular vocabulary items and, occasionally, also grammatical features. Most of the vernacular elements are to be found in the incantations.[50] Examples include:

- Innovative inflectional forms, e.g. ὕδατος γλυκέου 88, νύκταν 89, βοήθημαν 101, ρέμαν 102, πρῆσμαν 104, ἐβγασίματος 106; imperative: βάνε 102, φλεβοτόμα 103; double augment: ἐπροελάβετε 103; participle: διαβασμένον εἰς πανὶν 101.
- The regular use of the particles νὰ and ἂς with the subjunctive, e.g. νὰ ἔνι τὸ μειράκιον ἄρρεν 104.
- The use of clitics forms as possessive and personal pronouns, e.g. μηνύει σας ὁ Χαζάρης 103, τὰ μερμηγκοκουρουνόπουλά σας 103.
- Expression of the indirect object through the accusative case, e.g. δὸς πιεῖν τὸν τρώμενον 86; δὸς φαγεῖν ὃν ὑπ᾽ ὄψιν ἔχεις 88.
- Innovative lexical items/forms, e.g. ἐβγάσιμον 106, καπούλιν 86, κρομμύδιν 94, μουρσὶν 86, τσουκάλιν 89, φινοκάλιζω 95.
- Innovative compounds, e.g. βρουλόριζον 105, μερμηγκοκουρουνόπουλα 103, ρεπανόγουλον 107.

49 This passage is very interesting from a pragmatic point of view, as it contains a very early Greek source for the connection of the cult of SS. Florus and Laurus with horses, until now known only from Russian sources, from the fifteenth century onward. See Rizos (2016) with relevant literature.

50 Similar charms are transmitted in other manuscripts, e.g. the charm for repelling ants (in p. 103); see Zellmann-Rohrer (2016: 249–50).

2.2.7 Anonymous medical compilation [Part B of MS.MSL.14, pp. 272–317].

(i) [pp. 298–9] Περὶ γυναικὸς ἐὰν μοιχᾶται.[51] Ὀρνιθίου στέον τὸ ἔμπροσθεν τοῦ στήθους αὐτοῦ ὃ ἐστὶ || εἰς τὸ δεξιὸν μέρος τὸ διχαλόν, κοιμωμένης τῆς γυναικὸς θὲς ἀπέναντι τῆς καρδίας αὐτῆς καὶ ἃς βλέπει ἡ διχάλης τοῦ ὀστέου πρὸς τὴν κεφαλὴν αὐτῆς. Πότισον δὲ αὐτὴν καὶ *ὀγκάτει*[52] λίθον καὶ ὁμολογήσει ἐν τῷ ὕπνῳ ὅσα ἔπραξε.

(ii) [pp. 303–4] Περὶ ὑδρωπικούς. <K>υθάραν[53] ἤτοι τζουκάλ<ι> καινούριον λαβὼν καὶ εὑρὼν βάτραχον, πουμάτωσον αὐτὸν καὶ ποίησον μὴ ἀναπνέειν καὶ ἃς ποιήσει ἡμέρας λα΄ καὶ ψηλαφήσας τὴν κεφαλὴν αὐτοῦ εὕρεις λίθον καὶ [δ]ῆσον μετὰ πανίου καὶ || ἃς ζώσεται καὶ λυτροῦται τὸ πάθος. Εἰδὲ πολλάκις θέλεις δοκιμάσαι, γέμισον μαγαρικὸν ὕδωρ καὶ βάλον τὸν λίθον μέσα καὶ οὐ μὴ μείνῃ ἐν αὐτῷ ὕδωρ.

Περὶ τοῦ καλῶς βλέπειν. Αἷμαν ὀρνέου ἐπόπου χρίε τοὺς ὀφθαλμοὺς καὶ καλὰ βλέψει.

The second part of MS.MSL.14, due to its brevity, will be examined as a single text, despite the possibility of some thematic distinction of parts, e.g. the first section *On the Pulse* [ed. Zipser (2008, 2013); see also Nutton and Zipser (2010: 262–3)]. The text again belongs to a middle register, preserving many conservative features, such as retention of final -ν; the use

51 A diplomatic transcription and English translation of this excerpt is also provided in Zipser (2013: 261). The translation of the rubric 'Concerning a woman when she does not covet' indicates that the passage has been misunderstood by the editor; the reading ἐὰν μη χαται should be transcribed: ἐὰν μοιχᾶται (=*if she is adulterous/unfaithful*). Magical rituals for revealing a woman's infidelity, such as those described in sample (i), have been known since antiquity [see e.g. Dickie (2001: 120–1 and n. 103)] and appear also in several medieval Greek manuscripts (see n. 52 below, especially for rituals involving birds' wishbones and the magic properties of the magnet/lodestone).

52 The required emendation of the reading *ὀγκάτει* is probably μαγνήτην or μαγνῆτιν, as suggested by a number of parallel texts. Cf. Parisinus gr. 2286, f. 61v: Λίθον μαγνῆτιν εἰς ζέοντα οἶνον βάψον, καὶ οὕτω δὸς πιεῖν αὐτῇ νήστει ἀπὸ λουτροῦ, καὶ πάντα σοι λέγοι [ed. Boissonade (1827: 240); see ibid. for test of fidelity involving wishbone]. Also, Parisinus gr. 2316, f. 336r: μαγνίτην λίθον τρίψας δὸς ποιῆν μετὰ οἴνου ἀκράτου· κ(αὶ) μὴ ἀφήσ(ης) αὐτὴν λούσασθαι· κ(αὶ) αἰ ἀφήσις αὐτὴν λούσασθαι τὴν ἡμέραν ἐκύνην κ(αὶ) τὴν ἄλλην· ὅταν δὲ ὑπάγεις κοιμηθήναι· δὸς αὐτὴν πάλ(ιν) πιῆν· κ(αὶ) τίποτε μὴ φάγη· κ(αὶ) τῇ β΄ συνκάθευδε· καὶ ὁμολογήσοι σε τὸν μηχὸν· Ὄρνις ἡμέρου τὸ ὀστοῦν τὸ δίκρουν ἐποίθες ἐπὶ τὴν καρδίαν αὐτῆς κοιμωμένης· καὶ ἐρώτα αὐτην· καὶ ὁμολογήσοι σοι πάντα ὅσα ἔπραξε(εν); Metrodora, *Περὶ τῶν γυναικείων παθῶν τῆς μήτρας* [ed. Kousis (1945: 55)]: Πρὸς ὁμολογῆσαι τοὺς μοιχοὺς αὐτῆς. Μαγνήτην λίθον τρίψας, δὸς πιεῖν μετὰ οἴνου ἀκράτου καὶ τῇ ἡμέρᾳ ἐκείνῃ μὴ λούσεται, καὶ τῇ ἑσπέρᾳ, ὅτε ὑπάγῃ καθεύδειν δὸς αὐτὰ πιεῖν καὶ μηκέτι ἑτέρῳ γεύσεται· καὶ τῇ νυκτὶ κάθευδε μετ᾽ αὐτῆς καὶ ὁμολογήσει τοὺς μοιχοὺς αὐτῆς. Ἄλλο. Ὀρριψίου τοῦ ἡμέρου τὸ δίκρανον ὀστοῦν θὲς ἐπὶ τὴν καρδίαν αὐτῆς κοιμωμένης καὶ ὁμολογήσει τίνος φρονεῖ καὶ τὶς αὐτὴν ἔσχηκε. Related instructions involving the properties of the magnet in Parisinus gr. 2316, f. 336 (text in Oikonomu-Agorastou (1982: 42.6–11)] and f. 344; cf. also John Tzetzes, *Chiliades*, 5.66.616–25, ed. Leone (1968).

53 Obvious scribal error which should be corrected to κύθραν.

of the infinitive (e.g. ὀφείλει κοπανίσαι 276, οὐ δύναται νοῆσαι 276, θέλεις δοκιμάσαι 303); the ancient participles (e.g. ὁδοιπορῶν 314, ἐπιξύων 278, ἐγχριομένη 283, τοῦ ἀσθενοῦντος 284); third person imperative (e.g. πιέτω 276, πινέτω 277). At the same time, it presents several low-register elements on all levels of analysis, although it cannot be characterised as vernacular, or dialectal. There are no linguistic indications of Cypriot dialect.

On the level of phonetics/phonology one may mention:

- The common change of [o] > [u], e.g. ζουμὸν 273, πουμάτωσον 303, 315, σουληνάριν 292.
- The deletion of consecutive vowels in the verbal forms πιεῖ > πεῖ 288, φάγει > φάει > φά 289.
- The deletion or change of unstressed initial vowel, e.g. στέον 298, δύοσμον 317; ἐτέας 301, ὀρμίγγια 307, ὀγδὶν 312; note also the hypercorrect ὑψηλὸν 313 (instead of ψιλόν).
- Interchange of liquid consonants, e.g. ὀρμίγγια 307, μάλαθρον 291, μαλαθρόριζον 311.
- Change of [sx] to [sk] and [sθ] to [st], e.g. μοσκοκάρυδον 313, κλαστεῖ 285. Note also the hypercorrect καύχαλον (instead of καύκαλον) 302.
- The rare change [tm] to [θn]: ἄθνισον 292.

In nominal mophology one may mention:

- The addition of final -ν, e.g. σῶμαν 275, σπλήναν 288, ρεῦμαν 295.
- The medieval suffix -έα, e.g. χελιδονέας 273, χερέαν 306, together with the hypercorrect forms ἀραῖα (adverb) 275, χοίρεον φούσκαν 278.
- The neuter active participle form πιστακίζοντα 273.
- The mutual influence of neuter paradigms in -ον and -ος, e.g. τοῦ πελάγου 287, τὰ οὔλη 291.
- The clitic forms of the personal pronoun, e.g. βάλε τον 296, βάλε το 297, ἂς τὸ φᾶ 289.
- The form ἐπόπου 304 (genitive) (for ἔποπος).

In verbal morphology:

- The variation in the second person Aorist imperative, e.g. δῆσον 316 ~ δῆσε 294, ἔπαρε 289 ~ ἔπαρον 295.
- The third person of the copula ἔνι interchanging with ἐστὶν (passim).
- The expression of the imperative through the particle ἂς + subjunctive, e.g. ἂς βράσουν 306, ἂς ψηθεῖ δὲ καλὰ καὶ ἂς πίνει 310.
- The double augment ἐδιέβην 290.
- The hapax Future form θέλω + infinitive εἰ θέλει ζῆν ἢ ἀποθανεῖν 384.

Finally, in the domain of vocabulary, one may observe a number of innovative words/forms: ἀβγὸ 286, βατσινόριζον 309, κοδιμεντόριζον 311,

Figure 4.4 Londiniensis Wellcomensis MS.MSL.14, pp. 307–8.
Photograph by Petros Bouras-Vallianatos.

κρομμύδι 277, νεράντζι 317, ὀξινόγλυκος 277, πινόμαλλο(ν) 312, ρετσίνη 286, σουληνάριν 292, τσακίζω 289, τσουκάλι 303, φούσκα 272.

To sum up, we hope that the linguistic analysis of these two very different manuscripts, MS.4103 and MS.MSL.14, undertaken here has provided some much-needed reference points and methodological tools for the study of this fascinating branch of knowledge, the history of medicine, and for the edition of similar texts. In particular, we hope that we have shed some light on the largely unchartered territory of late medieval and early modern iatrosophic texts: their provenance, language, and sources, and their place in the bigger picture of non-literary prose. We also hope to have demonstrated that this type of texts are valuable, but so far untapped, sources for the history of the Greek language.

Bibliography

Alexopoulou, M.-P. (ed.) 1998. *Das Iatrosophion des sog. Meletios. Edition mit sprachlichem und sachlichem Kommentar.* Ludwig-Maximilians-Universität München: Inaugural-Dissertation.

Andriotis, N. P. 1956. ‘Ἡ κράση τοῦ συμπλέγματος ου + ε στὴν Μεσαιωνικὴ καὶ Νέα Ἑλληνική’, in *Mélanges offerts à Octave et Melpo Merlier pour le 25e anniversaire de leur arrivée en Grèce*, vol. 1. Athens: Institut Français d’Athènes, 1–11.

Andriotis, N. P. 1974. *Lexikon der Archaismen in neugriechischen Dialekten*. Vienna: Österreichische Akademie der Wissenschaften.

Andriotis, N. P. 1990. *Ἐτυμολογικὸ λεξικὸ τῆς Κοινῆς Νεοελληνικῆς* [3rd edition]. Thessaloniki: Institouto Neoellinikon Spoudon – Idryma M. Triantaphyllidi.

Boissonade, J.-F. 1827. ‘Traité alimentaire du médecin Hiérophile extrait de deux manuscrits de la Bibliothèque du Roi’, *Notices et extraits des manuscrits de la Bibliothèque du Roi* 11(2): 178–273.

Bongas, E. A. 1964/66. *Τὰ γλωσσικὰ διώματα τῆς Ἠπείρου (Βορείου, Κεντρικῆς καὶ Νοτίου). Α΄ Γιαννιώτικο κα ἄλλα λεξιλόγια*. Β΄ *Γλωσσάρια Βορ. Ἠπείρου, Θεσπρωτίας, Κόνιτσας, κ.ἄ*. Ioannina: Ekdoseis Etaireias Ipeirotikon Meleton.

Bouras-Vallianatos, P. 2015. ‘Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue’, *Medical History* 59(2): 275–326.

Bouras-Vallianatos, P. 2018. ‘Enrichment of the Medical Vocabulary in the Greek-Speaking Medieval Communities of Southern Italy: The Lexica of Plant Names’, in B. Pitarakis and G. Tanman (eds.), *Life Is Short, Art Long: The Art of Healing in Byzantium. New Perspectives*. Istanbul: Istanbul Research Institute, 155–84.

Bouras-Vallianatos, P. 2019. ‘Review of A. Touwaide: *A Census of Greek Medical Manuscripts. From Byzantium to the Renaissance*. London – New York: Routledge 2016’, *Plekos* 21: 153–76. At www.plekos.uni-muenchen.de/2019/r-touwaide.pdf (accessed, 31 July 2019) .

Chatzopoulou, V. 2018. ‘Ὁ ἰατρὸς Νικόλαος ὁ Βελισδονίτης: Νέα στοιχεῖα γιὰ τὸ ἔργο του’, in K. Chrysou-Karatza (ed.), *Λαϊκὴ Ιατρικὴ και Ιατρικὴ Επιστήμη. Σχέσεις Αμφίδρομες. Πρακτικά Πανελλήνιου Επιστημονικού Συνεδρίου, Αθήνα, 7–11 Μαρτίου 2012*, vol. 2. Athens: Academy of Athens, 17–32.

de Mély, F. (ed.). 1898. *Les Lapidaires de l’Antiquité et du Moyen Age. Tome II. Premier Fascicule. Les Lapidaires grecs*. Paris: Ernest Leroux.

Delatte, A. (ed.). 1939. *Anecdota Atheniensia et alia*, vol. 2. Liège and Paris: Faculté de Philosophie et Lettres – Droz.

Dickie, M. W. 2001. *Magic and Magicians in the Greco-Roman World*. London and New York: Routledge.

Drexl, F. (ed.). 1925. *Achmetis Oneirocriticon*. Leipzig: Teubner.

Georgacas, D. 1951. ‘Grammatische und etymologische Miszellen zum Spät- und Neugriechischen’, *Glotta* 31: 199–235.

Holton, D., Horrocks, G., Janssen, M., Lendari, T., Manolessou, I. and Toufexis, N. 2019. *The Cambridge Grammar of Medieval and Early Modern Greek*. 4 vols. Cambridge: Cambridge University Press.

Horrocks, G. 2010. *Greek: A History of the Language and its Speakers* [2nd edition]. Chichester and Malden, MA: Wiley-Blackwell.

Ieraci Bio, A. M. 1982. ‘Testi medici di uso strumentale’, *Jahrbuch der Österreichischen Byzantinistik* 32: 33–43.

ILNE = *Ἱστορικὸν Λεξικὸν τῆς Νέας Ἑλληνικῆς, τῆς τε κοινῶς ὁμιλουμένης καὶ τῶν ἰδιωμάτων*. 6 vols. 1931–2016. Athens: Academy of Athens.

Jannaccone, S. 1951. ‘Sur l’hypercorrection en grec’, *Neophilologus* 35: 151–61.

Kaimakis, D. (ed.). 1976. *Die Kyraniden*. Meisenheim am Glan: Anton Hain.

Kakridis, I. 1926. ‘Περὶ τῶν εἰς “-γος” στερητικῶν ἐπιθέτων τῆς νέας ἑλληνικῆς’, *Ἀθηνᾶ* 38: 194–212.

Karas, G. 1994. *Οἱ ἐπιστῆμες στὴν Τουρκοκρατία. Χειρόγραφα καὶ ἔντυπα*. Τόμος Γ΄: *Ο ἐπιστῆμες τῆς ζωῆς*. Athens: Estia.

Katsanis, N. A. (ed.). 2012. *Το γλωσσικό ιδίωμα της Θεσσαλονίκης στα τέλη του 17ου αιώνα, όπως αποτυπώνεται σε 12 επιστολές του Θεσσαλονικιού εμπόρου Δημ. Καστρίσιου*. Thessaloniki: University Studio Press.

Kosmas, N. V. 1997. *Τὸ γλωσσικὸ ἰδίωμα τῶν Ἰωαννίνων*. Athens and Ioannina: Dodoni.

Kostoula, D. D. (ed.). 1991. *Αγάπιος Λάνδος. Γεωπονικόν, Βενετία 1643*. Επιμέλεια κειμένου, Εισαγωγή, Σχόλια, Γλωσσάριο. Volos: Ekdoseis Tinos.

Kousis, A. 1939. 'Quelques considerations sur les traductions en grec des oeuvres médicales orientales et principalement sur les deux manuscrits de la traduction d'un traité persan par Constantin Melitiniotis', *Πρακτικὰ τῆς Ἀκαδημίας Ἀθηνῶν* 14: 205–20.

Kousis, A. (ed.). 1945. 'Metrodora's Work "On the Feminine Diseases of the Womb" according to the Greek Codex 75,3 of the Laurentian Library', *Πρακτικὰ τῆς Ἀκαδημίας Ἀθηνῶν* 20: 46–68.

Krekoukias, D. A. (ed.). 1973. '"Ενα παλιὸ ζαγορήσιο γιατροσόφι', *Ἠπειρωτικὴ Ἑστία* 22: 237–49.

Kriaras, *Epit*. = Kazazis, I. (ed.). 2001–3. *Επιτομή του Λεξικού της Μεσαιωνικής Ελληνικής Δημώδους Γραμματείας του Ε. Κριαρά*. 2 vols. Thessaloniki: Kentro Ellinikis Glossas.

Kriaras, *Lex*. = Kriaras, E. 1968–2019. *Λεξικό της μεσαιωνικής ελληνικής δημώδους γραμματείας (1100–1669)*. 21 vols. Thessaloniki.

LBG = Trapp, E. et al. (eds.). 1994–2017. *Lexikon zur byzantinischen Gräzität, besonders des 9.–12. Jahrhunderts*. 8 vols. Vienna: Österreichische Akademie der Wissenschaften.

Legrand, É. (ed.). 1881. *Bibliothèque grecque vulgaire. Tome deuxième*. Paris: Maisonneuve et Cie.

Lendari, T. and Manolessou, I. 2003. 'Η εκφορά του έμμεσου αντικειμένου στη Μεσαιωνική Ελληνική. Εκδοτικά και γλωσσολογικά προβλήματα', in *Studies in Greek Linguistics. Proceedings of the 23rd Annual Meeting of the Department of Linguistics, School of Philosophy, Aristotle University of Thessaloniki (17–19 May 2002)*. Thessaloniki, 394–405.

Lendari, T. and Manolessou, I. 2013. 'Demonstrative Pronouns: Synchronic Variation and Diachronic Evolution', in M. Janse et al. (eds.), *Proceedings of the 5th International Conference on Modern Greek Dialects and Linguistic Theory (Ghent 20–22 September 2012)*, Patras: University of Patras, 228–44.

Leone, P. A. M. (ed.). 1968. *Ioannis Tzetzae, Historiae*. Naples: Libreria Scientifica Editrice.

LKN = *Λεξικό της Κοινής Νεοελληνικής*. 1998. Thessaloniki: Institouto Neoellinikon Spoudon – Idryma Manoli Triantaphyllidi.

Mackridge, P. 1993. 'An Editorial Problem in Medieval Greek Texts: The Position of the Object Clitic Pronoun in the Escorial *Digenes Akrites*', in N. M. Panayotakis (ed.), *Origini della letteratura neogreca. Atti del secondo Congresso Internazionale «Neogreca Medii Aevi» (Venezia, 7–10 novembre 1991)*, vol. 1. Venice: Istituto Ellenico di Studi bizantini e postbizantini di Venezia, 325–42.

Manolessou, I. 2008. 'On Historical Linguistics, Linguistic Variation and Medieval Greek', *Byzantine and Modern Greek Studies* 32: 63–79.

Manolessou, I. and Beis, S. 2006. 'Syntactic Isoglosses in Modern Greek Dialects: The Case of the Indirect Object', in A. Ralli et al. (eds.), *Proceedings of the 2nd International Conference on Modern Greek Dialects and Linguistic Theory, Mytilene, September 2004*. Patras: University of Patras, 220–35.

Mavroudi, M. 2002. *A Byzantine Book on Dream Interpretation: The Oneirocriticon of* Achmet *and Its Arabic Sources*. Leiden, Boston and Köln: Brill.

Meyer, G. 1894. *Neugriechische Studien. I. Versuch einer Bibliographie der neugriechischen Mundartforschung. II. Die slavischen, albanischen und rumänischen Lehnworte im neugriechischen. III. Die lateinischen Lehnworte im neugriechischen. IV. Die romanischen Lehnworte im neugriechischen*. Vienna: F. Tempsky.

Minas, K. (ed.). 2012. *Ιατροσόφιον του δέκατου όγδοου αιώνα*. Rodos: Ekdoseis Veretta.

Newton, B. 1972. *The Generative Interpretation of Dialect: A Study of Modern Greek Phonology*. Cambridge: Cambridge University Press.

Nutton, V. and Zipser, B. 2010. 'MSL 14. A Wellcome Manuscript of a Medical Practitioner', in V. Boudon-Millot, A. Garzya, J. Jouanna and A. Roselli (eds.), *Storia della tradizione e edizione dei medici greci: Atti del VI Colloquio Internazionale, Paris 12–14 Aprile 2008*. Naples: D'Auria, 259–70.

Oberhelman, S. M. 2015. 'Towards a Typology of Byzantine and Post-Byzantine Healing Texts', *Athens Journal of Health* 2(2): 133–46.

Oikonomidis, D. V. (ed.). 1953. 'Ἐξορκισμοὶ καὶ ἰατροσόφια ἐξ ἠπειρωτικοῦ χειρογράφου', *Ἐπετηρὶς Λαογραφικοῦ Ἀρχείου* 8: 14–60.

Oikonomou, K. (ed.). 1978. 'Δύο ἠπειρώτικα γιατροσόφια', *Δωδώνη* 7: 239–301.

Oikonomu-Agorastu, I. (ed.). 1982. *Kritische Erstausgabe des Rezeptbuchs des Cod. Par. gr. 2316, f. 348^{v}-374^{v}* Universität zu Köln: Inaugural-Dissertation. Thessaloniki: Giahudi – Giapulli.

Papadopoulos, A. 1927. *Γραμματικὴ τῶν βορείων ἰδιωμάτων τῆς νέας ἑλληνικῆς γλώσσης*. Athens: P. D. Sakellarios.

Papadopoulos, C. 2009. 'Post-Byzantine Medical Manuscripts: New Insights into the Greek Medical Tradition, Its Intellectual and Practical Interconnections, and Our Understanding of Greek Culture', *Journal of Modern Greek Studies* 27: 107–30.

Papadopoulos-Kerameus, A. (ed.). 1899. *Ἱεροσολυμιτικὴ Βιβλιοθήκη*, vol. 4. St. Petersburg.

Papahagi, T. 1974. *Dicţionarul Dialectului Aromîn General şi Etimologic*. Bucarest: Editura Academiei Republicii Populare Romîne.

Papanastasiou, G. 2008. 'Στερητικά επίθετα (με το πρόθημα α-) σε -τος, -ος και -γος στις νεοελληνικές διαλέκτους', in M. Theodoropoulou (ed.), *Licht und Wärme. In Memory of A.-F. Christidis*. Thessaloniki: Kentro Ellinikis Glossas, 296–313.

Pappas, P. 2004. *Variation and Morphosyntactic Change in Greek: From Clitics to Affixes*. Basingstoke: Palgrave Macmillan.

Redhouse. 1968 = *New Redhouse Turkish-English Dictionary. A New Dictionary based Largely on the Turkish – English Lexicon Prepared by Sir James Redhouse and Published in 1890 by the Publication Department of the American Board*. Istanbul: Redhouse Press.

Rizos, E. 2016. 'Martyrs from the North-Western Balkans in the Byzantine Ecclesiastical Tradition: Patterns and Mechanisms of Cult Transfer', in I. Bugarski et al. (eds.), *GrenzÜbergänge. Spätrömisch, frühchristlich, frühbyzantinisch als Kategorien der historisch-archäologischen Forschung an der mittleren Donau. Akten des 27. Internationalen Symposiums der Grundprobleme der frühgeschichtlichen Entwicklung im mittleren Donauraum, Ruma, 4.-7.11.2015*. Remshalden: Greiner, 195–213.

Rydbeck, L. 1967. *Fachprosa, vermeintliche Volkssprache und Neues Testament: zur Beurteilung der sprachlichen Niveauunterschiede im nachklassischen Griechisch*. Stockholm: Almqvist & Wiksell.

Sudhoff, K. 1915. 'Die pseudohippokratische Krankheitsprognostik nach dem Auftreten von Hautausschlägen, „Secreta Hippocratis "oder „Capsula eburnea "benannt,' *Archiv für Geschichte der Medizin* 9: 79–116.

Touwaide, A. 2007. 'Byzantine Hospital Manuals (*Iatrosophia*) as a Source for the Study of Therapeutics', in B. Bowers (ed.), *The Medieval Hospital and Medical Practice*. Aldershot: Ashgate, 147–73.

Touwaide, A. 2016. *A Census of Greek Medical Manuscripts: From Byzantium to the Renaissance*. London and New York: Routledge.

Trudgill, P. 2003. 'Modern Greek Dialects: A Preliminary Classification', *Journal of Greek Linguistics* 4: 45–64.

Tselikas, A. 1995. 'Τὰ ἑλληνικὰ γιατροσόφια: μια περιφρονημένη κατηγορία χειρογράφων', in T. Diamantopoulos (ed.), *Ἰατρικὰ βυζαντινὰ χειρόγραφα*. Athens: Domos, 57–69.

Tselikas, A. (ed.). 2012. *Τὸ γιατροσόφι τοῦ Χιώτη «ταπεινοῦ» Παντολέοντα. Περὶ ἰατρικῆς βιβλίον δεδοκιμασμένον καὶ ὑπὸ πολλῶν διορθωμένον*. Athens: Poreia.

Tselikas, A. 2018. 'Μεταβυζαντινὰ Ἰατροσοφικὰ Χειρόγραφα καὶ «Λαϊκὴ Ἰατρική»', in K. Chrysou-Karatza (ed.), *Λαϊκή Ιατρική και Ιατρική Επιστήμη. Σχέσεις Αμφίδρομες. Πρακτικά Πανελλήνιου Επιστημονικού Συνεδρίου, Αθήνα, 7–11 Μαρτίου 2012*, vol. 1. Athens: Academy of Athens, 61–8.

Tselikas, A. and Ilioudis, G. N. (eds.). 1996. *Νικολάου Ἱερόπαιδος ἐξ Ἀγράφων (;), Πραγματεία περὶ Φυσιολογίας & Παθολογίας*. Larissa: Panepistimio Thessalias.

Tselikas, A. and Ilioudis, G. N. (eds.). 1997. *Νικολάου Ἱερόπαιδος ἐξ Ἀγράφων, Ἐκδόσεις μερικαὶ εἰς ἀρχάριον ἰατρόν*. Larissa: Panepistimio Thessalias.

Tsolaki, M. 2009. *Μορφολογία του ιδιώματος της Σαμοθράκης. Ονοματικό και ρηματικό κλιτικό σύστημα*. Aristotle University of Thessaloniki: PhD thesis.

Tsolakidis, S. and Melissaropoulou, D. 2010. 'Η διαχρονική εξέλιξη των στερητικών μεταρηματικών σχηματισμών σε *-τος* στη μεσαιωνική και νέα ελληνική', *Studies in Greek Linguistics. Proceedings of the Annual Meetings of the Department of Linguistics, School of Philology, Faculty of Philosophy* 30: 630–42.

van der Eijk, P. J. 1997. 'Toward a Rhetoric of Ancient Scientific Discourse: Some Formal Characteristics of Greek Medical and Philosophical Texts (Hippocratic Corpus, Aristotle)', in E. J. Bakker (ed.), *Grammar as Interpretation: Greek Literature in Its Linguistic Contexts*. Leiden, New York and Köln: Brill, 77–130.

Zellmann-Rohrer, M. W. 2016. *The Tradition of Greek and Latin Incantations and Related Ritual Texts from Antiquity through the Medieval and Early Modern Periods*. University of California, Berkeley, CA: PhD dissertation.

Zipser, B. 2008. 'Die uneinheitliche Überlieferung eines Fragmentes über den Puls und ein Iatrosophion', *Galenos* 2: 129–34.

Zipser, B. (ed.). 2009. *John the Physician's Therapeutics: A Medical Handbook in Vernacular Greek*. Leiden: Brill.

Zipser, B. 2013. 'Magic, Infidelity, and Secret Annotations in a Cypriot Manuscript of the Early Fourteenth Century (Wellcome MSL 14)', in S. M. Oberhelman (ed.), *Dreams, Healing, and Medicine in Greece: From Antiquity to the Present*. Farnham: Ashgate, 251–66.

5 Jewish astronomy in Byzantium*

The case of Wellcomensis MS.498

Anne Tihon

The codex Wellcomensis MS.498[1] (AD 1492) contains an astronomical treatise by Michael Chrysokokkes (ff. 32–68r) entitled:

> Μιχαὴλ νοταρίου τῆς μεγαλῆς ἐκκλησίας τοῦ Χρυσοκόκκη, ἔκδοσις γεγονυῖα εἰς τὸ ἰουδαϊκὸν ἑξαπτέρυγον κατὰ τὸ ,ϛϡμγ΄ ἔτος ἀπὸ τῆς ἀρχῆς τοῦ παντός.
>
> *Exposition concerning the Jewish Hexapterygon for the year 6943 from the beginning of the world by Michael Chrysokokkes, notarios of the Great Church.*

This treatise is a Byzantine adaptation of the Jewish astronomical treatise called *Shesh Kenaphayim*, the *Six Wings*, composed by Immanuel Bonfils for the town of Tarascon (Southern France) around 1350. It offers me an opportunity to present an important scientific trend at the end of the Palaiologan period in the fifteenth century: the introduction of Jewish astronomy into the Byzantine world. Michael Chrysokokkes' treatise, written in 1435, is the first example of the fashion for Jewish astronomical tables in Byzantium; it was followed by the adaptation of the *Cycles* of Bonjorn (written in Perpignan in 1361) by Mark Eugenikos, Matthew Kamariotes' adaptation of the *Paved Way* (*Orah Sellulah*) of Alhadib, and several anonymous treatises inspired by these works.

It might be useful at this point to offer a brief reminder of the history of astronomy in the Byzantine world.[2] During the Palaiologan period (from the end of the thirteenth century until the fall of Constantinople in 1453), there are two main trends in Byzantine astronomy. First, the restoration and continuation of Ptolemy's astronomy, involving eminent scholars such as Theodore Metochites, Nikephoros Gregoras, Barlaam of Seminara, Isaac

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1 Bouras-Vallianatos (2015: 321–4).

2 On the history of Byzantine astronomy, see Tihon (1994); (1996); (2008); (2009); (2013); and (2017a).

Argyros, and Theodore Meliteniotes. Ptolemy never stopped being studied and used in the Byzantine intellectual milieu. And second, the introduction and use of Arabic and Persian tables, which became widespread thanks to the *Persian Syntaxis* of George Chrysokokkes (ca. 1347). The *Persian Syntaxis* was a Greek adaptation of the *Zīj-i Ilkhānī* by Nasīr al-Dīn al-Ṭūsī,[3] which was widely disseminated in its Byzantine form.

But, by the end of the fourteenth century, Byzantine amateurs of astronomy were not entirely satisfied with these astronomical tables. Ptolemy's tables were obviously by now outdated and they produced an error of some 6° in the longitudes, even though they might sometimes produce good results for the time of a syzygy or an eclipse. On the other hand, the Persian tables were spoiled by some mistakes in the Byzantine adaptations, and also produced errors in the estimation of a syzygy. So, Byzantine astronomers wanted to have astronomical tables that were both reliable and easy to use.

In the Byzantine world, astronomy, with its 'sister' disciplines geometry, arithmetic, and music, was part of the scientific curriculum. The 'four sciences' remained the basis of a Byzantine scholar's education. In the fourteenth and fifteenth centuries, many intellectuals were practising or studying astronomy, not as real scientists, but as clever amateurs. Astrologers, who were flourishing in the Byzantine world in spite of the reluctance of the imperial power and of the Church,[4] needed updated tables in order to perform the astronomical calculations deemed necessary to establishing an astrological *thema*.[5] Many physicians were also practising astrology because they believed it could improve their medical practice.

But, more particularly, the Orthodox Church needed a competent clergy with a good training in astronomy. It is striking to see that after the *Astronomical Tribiblos*, written by Theodore Meliteniotes around 1352,[6] the most important authors of astronomical treatises were members of the Orthodox Church. The reason for this was the need to master the complex problem of Easter computation.[7] The Church wanted all Christians to be able to celebrate Easter on the same day, while avoiding the celebration of the Christian feast on the same day as the Jewish Passover. Since the Council of Nicaea in 325, the most commonly followed rule for fixing the date of Easter was that it should be on the first Sunday following the first full moon after the spring equinox. Two astronomical problems were thus involved: the date of the spring equinox and the date of the first full moon

3 Mercier (1984). On the introduction of Persian astronomy to Byzantium, see Pingree (1964), (1985-6); and Tihon (1987).

4 Magdalino (2006); (2017).

5 An astrological *thema* is a diagram containing the essential astronomical elements for prediction (e.g. position of the sun, moon, planets, houses).

6 Leurquin (1990); (1993).

7 On the Easter problem, see Grumel (1958); Mosshammer (2008); Lempire (2007); and Tihon (2004; 2011).

after the equinox. The Orthodox Church was still using an Easter canon established by John of Damascus in the eighth century.

Around 1325, Nikephoros Gregoras tried to persuade the Emperor Andronikos II (r. 1282–1328) to reform the paschal canon, arguing, on the basis of Ptolemy, that the date of the equinox was two days late. In 1333, his rival, Barlaam, raised the problem again, showing, also on the basis of Ptolemy, that the length of the tropical year was not right, and moreover that the 19-year cycle on which the traditional canon is based was not exact. Gregoras had suggested reforming the canon, but Barlaam pleaded for the *status quo*, for fear of causing trouble in the Church.[8] Later on, around 1370, Isaac Argyros raised the problem again, but the question remained unresolved. In manuscripts one can find many Easter canons, some of them reproducing the canon of John of Damascus, others the canon as corrected by Nikephoros Gregoras.

It was in this context that Jewish astronomical tables came to be known to some Byzantine scholars. These tables, which – in their Byzantine form – were only devoted to the calculation of syzygies and eclipses, immediately met with great success.[9] The first treatise is the aforementioned *Hexapterygon* or *Six Wings*. The *Six Wings* refer to the wings of the Seraphim in Isaiah 6.2–3. Each table is called a Πτέρον ('Wing'). In Wellcomensis MS.498, the name of the Byzantine author is given, i.e. Michael Chrysokokkes, with his position as *notarios* of the Great Church. Nothing is known about him, except that the name Chrysokokkes is attested in the fourteenth century in the case of George Chrysokokkes, author of the *Persian Syntaxis*, and in the fifteenth century for a copyist of some manuscripts (another George Chrysokokkes) and several members of the clergy.[10] The Byzantine adaptation was written around 1435. The author does not explain how he came to know this work; in his preface he justifies the use of a Jewish treatise, comparing himself to the bees who gather nectar from every flower in order to take what is useful for them. The name of the Jewish author is correctly given (Manuel or Immanuel), but the town of reference (Tarascon, in the South of France) is wrongly located in Italy and represented as Terracina. Another manuscript (Vaticanus gr. 1879, fifteenth century) gave the provenance as 'Tarragone' (i.e. Tarragona), which it identified as being in Spain. Apart from the names of Jewish months there are no Hebrew technical terms in the Greek treatise. The *Hexapterygon* was very successful: there are around 15 extant manuscripts, two anonymous adaptations, and a commentary by Damaskenos Stoudites, Metropolitan of Naupaktos and Arta (1574).[11]

8 Tihon (2011).

9 On Jewish astronomy in Byzantium, see Solon (1968); Solon (1970); and Tihon (2017b).

10 *PLP* 31141–31145.

11 Nicolaides (2011: 117, 129).

The second treatise mentioned above consists of the *Cycles* of Jacob ben David Yom-Tob (Bonjorn in the Provençal dialect), written for the town of Perpignan, ca. 1361.[12] This work was adapted by Mark Eugenikos (Metropolitan of Ephesus) between 1431 and 1444. The Jewish author is presented as 'an Italian Mathematician'. In some manuscripts the words 'a Jew called Jacob' are added.

Later on, Matthew Kamariotes (ca. 1480[?]) wrote a treatise entitled *Pure Way* (*Ὁδὸς καθαρά*), which is an adaptation of the treatise called *Paved Way* (*Orah Sellulah*) by Isaac ben Salomon ben Zaddiq Alhadib (ca. 1370–1426). The Hebrew title comes from Proverbs 15.19, but the Greek translation seems mistakenly based on Isaiah 35.8. Other treatises written in vernacular Greek also circulated at that time.[13] As one can see, the adaptors of Jewish astronomical treatises are all members of the Church.

The success of Jewish astronomy in Byzantium raises many questions. How does one explain this sudden interest of Byzantine intellectuals in Jewish astronomy, and more generally in Jewish science and philosophy? The contacts between the various Romaniote Jewish communities (whether Karaites or Rabbanites or some other sect) and Byzantine scholars are difficult to trace.[14] The Byzantine sources are indeed very disappointing. Some of them consist of fictitious discussions about the Christian and Jewish faiths and are not reliable testimonies.[15] None of the Byzantine adaptors of Jewish astronomical treatises explain how they became acquainted with Jewish astronomy. The only valuable testimony is the criticism of George Scholarios (later Patriarch Gennadios II, ca. 1400–ca. 1473), who reproaches Pletho for having been instructed by Elisaios, who was 'apparently a Jew, but in fact a Hellene [i.e. a pagan]'.[16] It seems that Plethon stayed in Elisaios' house in Adrianople (modern Edirne, Turkey) where the Ottoman court had moved in 1365. It is important to note that Scholarios' criticism is levelled at Plethon not for having studied with a Jewish master, but rather because this man was not a practising Jew, but a follower of some pagan philosophy, Zoroastrianism or perhaps the Illuminism of the Persian philosopher Sohrevardi (1155–91). The Jewish sources are more explicit. Byzantine influence on Romaniote Jewish science is well attested. Around 1374–86, a Jew from Thessaloniki, Shelomo ben Eliyahu, had translated into Hebrew the Persian tables explained in the *Persian Syntaxis* of George Chrysokokkes and by Theodore Meliteniotes.[17] Later, Mordecai Comtino (1402–82)

12 On this treatise, see Chabás I Bergon (1992).

13 Solon (1968), texts 2, 3, and 5; Tihon (2017b: 335).

14 On this question, see Gardette (2010); de Lange (2001) underlines the lack of modern studies on Jewish culture in the Byzantine world.

15 Congourdeau (2011).

16 Pletho, *Manual of Astronomy*, ed. Tihon and Mercier (1998) 6.

17 Goldstein (1979).

defended the Persian tables against criticism from Isaac Argyros and his pupils.[18] Isaac Argyros himself, in his Easter treatise (ca. 1372), remarked that when he was in Ainos (Thrace), some 50 years earlier, the Jews had celebrated Passover on the 20th of March while the Byzantines celebrated Easter on the 23rd of April. Some notes in Hebrew in Parisinus gr. 2501 (ca. 1484) reveal the interest of a Jewish reader in the Byzantine astronomical texts contained in this manuscript.[19]

We may now turn to one of the great figures of this time. Mordecai Comtino (or Khomatiano) (1402–82), a famous Jewish exegete and scientist from Constantinople, who was highly regarded as an astronomer.[20] In around 1425, he had written a commentary on the Persian tables already cited above. He also wrote a treatise on the astrolabe, another on the *Safihah* (an instrument created by al-Zarqālī, 1029–87), and one on a sundial. He wrote other works dealing with geometry and arithmetic. A physician and travelling preacher, Ephraim ben Gerson, relates that, coming from Veroia and after passing through Zeitun (modern Süleymanlı, Turkey), he went to Constantinople, where he wanted to meet Comtino. During his meeting with the famous scientist, a Greek prince came to see Comtino and consulted him on several difficult questions relating to astronomy, which the master solved with ease.[21] Comtino himself relates that a Greek priest went to question him about some stones supposedly from Sinai.[22] Such tales show that Greek individuals, priests or laymen, did not hesitate to consult a Jewish master whose reputation was known far outside Jewish circles. It is well known that Comtino had not only Jewish pupils, but Christians too. His Jewish pupils also taught astronomy: Eliau Mishrahi, Elia Bashyaci, and his pupil, Caleb Aphentopoulos. Although they seem to have been extremely protective and exclusive about their astronomical knowledge,[23] it is not impossible that they too had Christians among their students.

The political context favoured such exchanges. The situation of Byzantium at that time was disastrous: since 1374 the Byzantine Emperor had been a vassal of the Ottoman Sultan and officials of the Byzantine court were obliged to serve regularly at the Ottoman court. At the Ottoman

18 Schub (1932: 54, n. 3). It should be stressed that in the works of Argyros preserved in Greek manuscripts there is no criticism of the Persian tables, even although he chose to adapt Ptolemy's tables of syzygies in the Julian calendar.

19 Transcription of the notes by Mercier in Tihon (2017b: 345–6).

20 Attias (1991: 72–9).

21 Text given (in French) in Attias (1991: 13).

22 Gardette (2010: 138); and Attias (1991: 37).

23 Attias (1991: 77).

court, which had moved from Bursa to Adrianople, they would have met many Jewish scientists, physicians, and philosophers. A Greek manuscript containing Jewish tables (Mediolanensis Ambrosianus G 69 sup., fifteenth century) has astronomical annotations for the co-ordinates of Adrianople.

But there is also another possible connection, which may explain how Jewish treatises were known in Constantinople. All the Jewish authors adapted by the Byzantines are of Western origin: from Provence (Bonfils, Bonjorn) or Italy and Spain (Alhadib). Their works existed in Latin translation or in vernacular languages. During the Council of Florence-Ferrara (1438/9), intellectual exchanges between Latins and Byzantines intensified. It is not impossible that some Jewish tables were known in Byzantium through their Latin or vernacular versions. Thus, the *Cycles* of Bonjorn are called 'Italian tables' in the Byzantine version given by Mark Eugenikos.

One can also underline a common feature of the Byzantine adaptations of Jewish treatises: the Jewish authors are often badly identified and localised, and the meaning of the Hebrew title *Orah Sellulah* is misunderstood by Matthew Kamariotes. This may suggest that there were no direct contacts between the Byzantine authors and the great Jewish scientists, but that works were transmitted through unknown and perhaps less qualified intermediaries.

One manuscript seems to be better informed than the others: the codex Athous Vatopedinus 188 (ca. 1488), which seems to me to be the model for Wellcomensis MS.498. This manuscript contains medallions with rather clumsy pictures of the zodiac signs with their Arabic names. The same medallions are found in the Vatopedinus (see Figure 5.1), and I have not found them in any other manuscript, although, of course, this would need more investigation. In spite of some small differences in the drawings, or some corrections of the spelling of the Arabic names for the signs of the zodiac in the Wellcomensis (see Figure 5.2), the similarities between the two manuscripts are very striking. The tables have been carefully copied and the numbers seems to have been checked, as indicated by the annotations ἐπισκ- ('examined') in the Vatopedinus and διορθώμενον ('corrected' or 'verified') in the Wellcomensis. My hypothesis is also supported by the fact that recently it has been confirmed that both manuscripts were copied by Manuel Korinthios.[24] Mount Athos is close to Thessaloniki where there was an important Jewish community. We also know that the Wellcome manuscript was formerly kept in Nikolsburg, another important centre of Jewish culture from the fifteenth to the eighteenth century and even later. This allows us to suggest a scheme of transmission for this text through Greek-speaking Jewish communities from Thessaloniki to Central Europe before it arrived in the Library at Wellcome Collection in London.

24 Stefec (2013: 316); and Bouras-Vallianatos (2015: 323).

Figure 5.1 Athous Vatopedinus 188, f. 74v.
© Holy and Great Monastery of Vatopedi (Mt Athos, Greece).

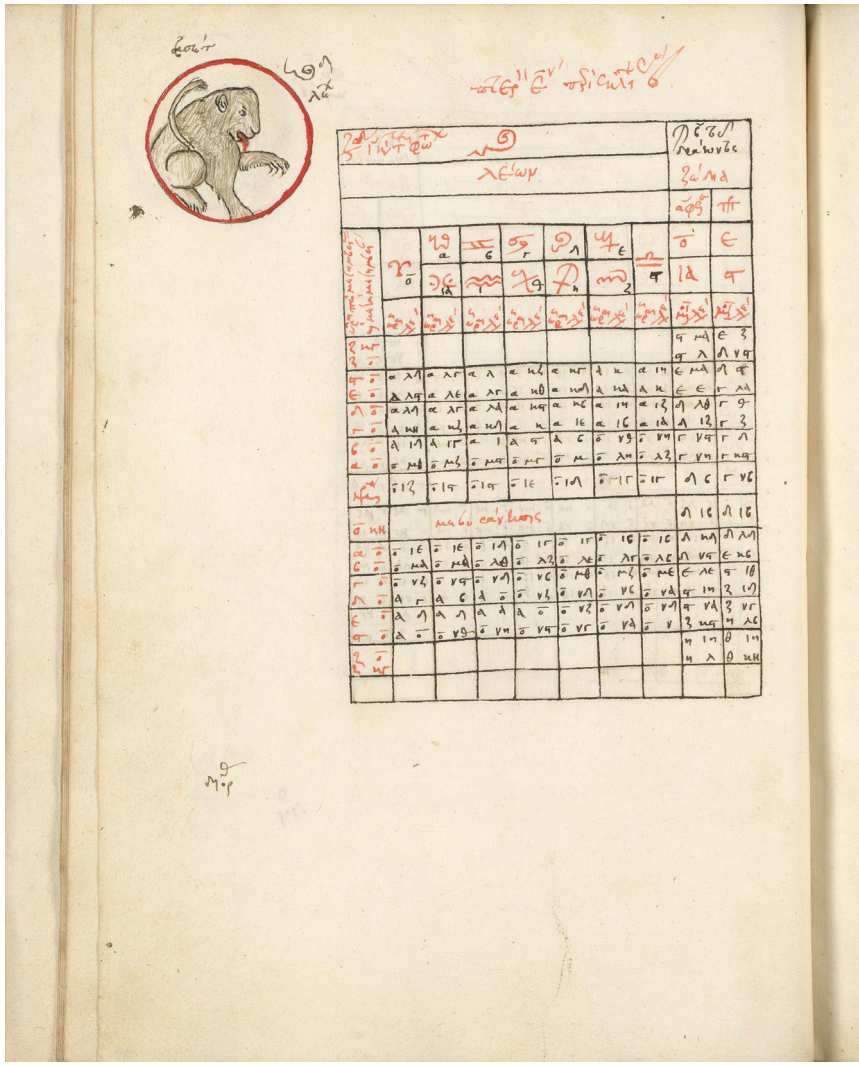

Figure 5.2 Londiniensis Wellcomensis MS.498, f. 61v.
© The Library at Wellcome Collection, London.

Bibliography

Attias, J. C. (ed.). 1991. *Le commentaire biblique. Mordekhai Komtino ou l'herméneutique du dialogue*. Paris: Editions du Cerf.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59.2: 275–326.

Chabás I Bergon, J. 1992. *L'Astronomia de Jacob ben David Bonjorn*. Barcelona: Institut d'Estudis Catalans.

Congourdeau, M.-H. 2011. 'Cultural Exchanges between Jews and Christians in the Palaeologan Period', in D. Shulman and G. Stroumsa (eds.), *Jews of Byzantium: Dialectics of Minority and Majority Cultures*. Leiden: Jerusalem Studies in Religion and Culture, 709–21.

de Lange, N. 2001. 'Hebrew Scholarship in Byzantium', in N. de Lange (ed.), *Hebrew Scholarship and the Medieval World*. Cambridge: Cambridge University Press, 23–37.

Gardette, P. 2010. *Déconstruction des stéréotypes autour de la culture juive à Byzance, ou brève tentative de réhabilitation d'une civilisation oubliée*. Saarbrücken: Éditions universitaires européennes.

Goldstein, B. 1979. 'The Survival of Arabic Astronomy in Hebrew', *Journal of the History of Arabic Science* 3.1: 31–9.

Grumel, V. 1958. *La Chronologie, Traité d'Études Byzantines*, vol. 1. Paris: Presses Universitaires de France.

Lempire, J. 2007. 'Le calcul de la date de Pâques dans les traités de S. Maxime le Confesseur et de Georges, moine et prêtre', *Byzantion* 77: 267–304.

Leurquin, R. (ed.). 1990. *Théodore Méliténiote. Tribiblos Astronomique. Livre I*. Amsterdam: Gieben.

Leurquin, R. (ed.). 1993. *Théodore Méliténiote. Tribiblos Astronomique. Livre II*. Amsterdam: Hakkert.

Magdalino, P. 2006. *L'orthodoxie des astrologues, La science entre le dogme et la divination à Byzance (VIIe-XIVe siècle)*. Paris: Lethielleux.

Magdalino, P. 2017. 'Astrology', in A. Kaldellis and N. Siniossoglou (eds.), *The Cambridge Intellectual History of Byzantium*. Cambridge: Cambridge University Press, 198–214.

Mercier, R. 1984. 'The Greek Persian Syntaxis and the Zīj-i Ilkhānī', *Archives Internationales d'Histoire des Sciences* 112.3: 35–60.

Mosshammer, A. 2008. *The Easter Computus and the Origin of the Christian Era*. Oxford: Oxford University Press.

Nicolaides, E. 2011. *Science and Eastern Orthodoxy*. Baltimore, MD: Johns Hopkins University Press.

Pingree, D. 1964. 'Gregory Chioniades and Palaeologan Astronomy', *Dumbarton Oaks Papers* 18: 135–60.

Pingree, D. (ed.). 1985–6. *The Astronomical Works of Gregory Chioniades, vol. I: The Zīj al-ʿAlāʾī*, part 1: *Text, translation, commentary*; part 2: *Tables*. 2 vols. Amsterdam: Gieben.

Schub, P. 1932. 'A Mathematical Text by Mordecai Comtino', *Isis* 17.1: 54–70.

Solon, P. (ed.). 1968. *The Hexapterygon of Michael Chrysococces*. Brown University: PhD dissertation.

Solon, P. 1970. 'The Six Wings of Immanuel Bonfils and Michael Chrysococces', *Centaurus* 15: 1–20.

Stefec, R. 2013. 'Zwischen Urkundenpaleographie und Handschriftenforschung: Kopisten am Patriarchat von Konstantinople', *Rivista di studi bizantini e neoellenici* 50: 303–26.

Tihon, A. 1987. 'Les tables astronomiques persanes à Constantinople dans la première moitié du XIVe siècle', *Byzantion* 57: 471–87.

Tihon, A. 1994. *Études d'astronomie byzantine*. Aldershot: Ashgate.

Tihon, A. 1996. 'L'astronomie byzantine à l'aube de la Renaissance, (de 1352 à la fin du XVe siècle)', *Byzantion* 66: 244–80.

Tihon, A. 2004. 'Le calcul de la date de Pâques de Stéphanos-Héraclius', in B. Janssens, B. Roosen and P. van Deun (eds.), *Philomathestatos, Studies in Greek Patristic and Byzantine Texts Presented to Jacques Noret*. Leuven-Paris-Dudley: Peeters Publishers, 625–46.

Tihon, A. 2008. 'Numeracy and Science', in E. Jeffreys, J. Haldon and R. Cormack (eds.), *The Oxford Handbook of Byzantine Studies*. Oxford: Oxford University Press, 803–19.

Tihon, A. 2009. 'Les sciences exactes à Byzance', *Byzantion* 79: 380–434.

Tihon, A. 2011. 'Barlaam de Seminara, Traité sur la Date de Pâques', *Byzantion* 81: 362–411.

Tihon, A. 2013. 'Science in the Byzantine Empire', in D. C. Lindberg and M. Shank (eds.), *The Cambridge History of Science 2: Medieval Science*. Cambridge: Cambridge University Press, 190–206.

Tihon, A. 2017a. 'Astronomy', in A. Kaldellis and N. Siniossoglou (eds.), *The Cambridge Intellectual History of Byzantium*. Cambridge: Cambridge University Press, 183–97.

Tihon, A. 2017b. 'Astronomie juive à Byzance', *Byzantion* 87: 323–47.

Tihon, A. and Mercier, R. (eds.). 1998. *Georges Gémiste Pléthon: Manuel d'astronomie*. Louvain-la-Neuve: Academia-Bruylant.

Trapp, E., Walther, R. and Beyer, H.-V. (eds.). 1976–91. *Prosopographisches Lexikon der Palaiologenzeit*. 11 vols. Vienna: Verlag der Österreichischen Akademie der Wissenschaften (cited as *PLP*).

6 Manuel Korinthios' poems in Wellcomensis MS.498

Maria Tomadaki

To the memory of
Maria Bitsaki

1 Introduction[1]

The manuscript Wellcomensis MS.498, a late fifteenth-century collection of astronomical texts (a. 1492), preserves a series of seven previously unexplored epigrams of Manuel Korinthios on the Virgin Mary, Christ and the vanity of life on folios 23r–24v.[2] The purpose of this paper is to provide a critical edition of these epigrams, together with an English translation and an analysis of their meaning and function. Six of the poems (1–4, 6, 8) were copied by Korinthios himself, whereas the rest (5, 7) have been added to the manuscript by another hand.[3] One more poem on the zodiac signs is preserved in the same manuscript (f. 31v) and has also been included in the present study. The first seven epigrams include an acrostic, which usually indicates Manuel's name and his main titles (ῥήτωρ, φιλόσοφος).

Manuel Korinthios (ca. 1460–1530/1), official rhetor (μέγας ῥήτωρ) of the Patriarchate of Constantinople and teacher at the Patriarchal School, was one of the most important and prolific theologians of the post-Byzantine period.[4] His oeuvre comprises theological treatises, special church services,

1 I am grateful to Prof. Kristoffel Demoen, Dr Petros Bouras-Vallianatos, Ms Valerie Nunn and the anonymous reviewer for their careful reading of my article and their useful feedback. The translations of the Greek texts are my own unless stated otherwise. In my editions, I have employed the following Sigla: A=Atheniensis Benaki Museum 249, TA 126; B=Oxoniensis Baroccianus 125; L=Londiniensis Burneianus 54; V=Athous Vatopedinus 188; W=Londiniensis Wellcomensis MS.498.

2 Wellcomensis MS.498 has been recently catalogued by Bouras-Vallianatos (2015: 321–4).

3 Rudolf Stefec identified Korinthios' hand in this manuscript, see Bouras-Vallianatos (2015: 321). Athous Iberiticus 512, the autograph collection of Korinthios' writings, offers a good example of his hand. For other manuscripts copied by Korinthios, see Stefec (2013: 313–17).

4 On Korinthios' life, see Patrinelis (1962: 17–27); Gritsopoulos (1966: 77–80); and Sofianos (1983: 791–6).

lives of saints, numerous liturgical hymns (mainly canons), orations, epistles and several poems in iambics, elegiacs and hexameters.[5] After the fall of Constantinople in 1453, the Patriarchate constituted the core and the chief preserver of the Orthodox faith and Byzantine culture, so it is no coincidence that Korinthios' writings were characterised by an effort to keep the Byzantine theological and literary traditions alive. In his prose theological treatises he defends Orthodoxy against the supporters of the Union of the Churches (as agreed at the Council of Florence in 1439), and with his canons and special services for contemporary saints he contributed to the canonisation of new saints and to the continuation of long-established church traditions.[6]

The poems under discussion are mainly of a theological character and are dealing with various subjects. His iambic poems (1–4, 6) are mostly addressed to the Virgin Mary and contain several common Marian metaphors (e.g. house, temple, throne of Christ), which highlight the Theotokos' role as container and bearer of the incarnate Christ. At the same time, some of the poems function as prayers (1–3), in which Korinthios requests the Theotokos to grant him rhetorical fluency or release him from his sufferings. Several of his iambic poems transmit an indirect soteriological message by saying that, thanks to Mary's conception and Christ's divine condescension and incarnation, human nature has been purified and glorified (1–2, 7). The fifth and eighth poems differ in content and metre from the others. The fifth poem laments in political verse the vanity of life, whereas the eighth poem offers a short introduction to the main characteristics of the zodiac signs in heptasyllables.

Korinthios composed his iambic verses in the pattern of Byzantine dodecasyllables, respecting the rules of twelve syllables, paroxytony and common prosodic norms.[7] However, he fails to avoid hiatus (e.g. poem 1, 3–4). Additionally, he shows a clear preference for the caesura ('Binnenschluss') after the fifth syllable (B5, 76%) rather than the seventh (B7, 24%). He also follows common rhythmotonic patterns in the distribution of the stresses before the caesurae: oxytone B5 (20%), paroxytone B5 (35, 6%), proparoxytone B5 (20%), proparoxytone B7 (20%) and paroxytone B7 (4, 4%). His political verses consist of paroxytony with a caesura after the eighth syllable

5 For a list of his works, see Papadopoulos-Kerameus (1902: 80–9).

6 See Papadopoulos-Kerameus (1902: 77–8); Gritsopoulos (1966: 78); and Moniou (2005–6: 103–4). A notable example of his polemical dogmatic works is his oration against Bessarion and Pletho, see Mamoni (1986); and Psimmenos (2007: 133–50). With his anti-Union treatises, Korinthios continues the anti-western policy of the Ecumenical Patriarchate of Constantinople, established above all by Patriarch Gennadios II Scholarios (d. 1473).

7 In general, Korinthios keeps the third, seventh and the eleventh syllables of his iambic verses short – with a few exceptions ('μου', poem no. 3.4; 'ἡλίου', poem no. 7.6; 'σοι', poem no. 7.8).

and usually have a stress on the sixth syllable. His unprosodic heptasyllables are characterised by an oxytone line-ending, recurring rhyme and by the frequent use of a stress on the third syllable.[8]

Korinthios' language demonstrates his acquaintance with hymnography and biblical texts. However, archaising words (e.g. μερόπων poem 1, 4; λιγαίνω poem 2, 4) and *hapax legomena* (e.g. ὑπατιάζειν poem 5, 5; τρισαιγλήεις poem 8, tit.) enrich his style and are indicative of his high level of education. His hand is characterised by a small cursive script with few ligatures. A few orthographical mistakes and irregularities in the treatment of enclitics can be observed, which are recorded in the critical apparatus. The punctuation of the manuscript does not seem to be consistent and therefore has not been retained.

2 Edition, translation and commentary

2.1 Poem no. 1

Οἶκος πέφυκας τῆς ὅλης θεαρχίας
ῥόδον τεκοῦσα μυστικῆς εὐωδίας
ἡ γὰρ ἐπισκίασις ὑψίστου, κόρη,
τῆς φύσεως ἐξῆρε μερόπων ἄνω.
ὦ παντάνασσα τοίνυν εὐλογημένη,
ῥύου με δεινῶν καὶ λύπης σὸν οἰκέτην.

2 cf. *Akath. Hymn.* 21.16 (Trypanis, 1968: 38) **‖ 3** cf. Luc. 1.35 ‖ **5** cf. Luc. 1.42

f. 23r **3** τῆς φύς post l. expunxit id. ‖ **4** μειρόπων W

You have been the dwelling-place of the whole Godhead,
for you gave birth to a rose of a mystical fragrance.
The overshadowing of the Highest, oh maiden,
exalted <you> above the nature of mortals.
Oh queen of all, indeed blessed,
save me, your servant from sufferings and sorrow.

The first epigram of the collection is written in Manuel's hand and bears the acrostic: 'ὁ ῥήτωρ'. Like poems 2, 3, 6, 7 and 8, it was only available in diplomatic transcription in the most recent catalogue of the Wellcome Greek collection.[9] At the beginning of the poem the author praises

8 On the characteristics of this meter, see also pp. 140–1, below.
9 See Bouras-Vallianatos (2015: 321).

the Virgin Mary using the common Marian appellation of 'dwelling place' (οἶκος) and identifies her as the source from which the Godhead derived.[10] The term 'θεαρχία' ('thearchy') is frequently used by Ps.-Dionysios the Areopagite, one of the most influential theologians in Byzantium, and usually refers to the 'divine principle' and to the 'divine transcendent reality'.[11] Here the term seems to point to Christ and to the Godhead in general. In the first verses it becomes evident that Korinthios was familiar with the *Akathist Hymn*, the popular *kontakion* dedicated to the Virgin, which is often attributed to Romanos the Melodist.[12] To be more specific, the second line echoes the metaphor used in the *Akathist* to address the Theotokos: 'χαῖρε, ὀσμὴ τῆς Χριστοῦ εὐωδίας' ('hail, smell of Christ's fragrance').[13] As in the *Akathist*, the word 'εὐωδία' (fragrance) in the epigram implies Christ. The following words of Manuel Korinthios in honour of the Virgin Mary, quoted by Sophronios Eustratiades, have a similar meaning:[14] 'ῥόδον ἐκ παραδείσου μυστικοῦ ἐξ οὗ προῆλθε τῆς θεαρχίας ὀδμὴ' ('rose from a mystical paradise from which the scent of the Godhead is derived'). In the epigram, however, the word ῥόδον (v. 2) seems to indicate Christ and not Mary, as one would expect.[15] The subsequent verses (vv. 3–4) clearly refer to the Annunciation; God overshadowed Mary and with his *synkatabasis* (divine condescension) and the conception of Christ, he glorified her. The epigram ends with Korinthios' prayer to Mary to release him from his sufferings.[16]

10 Cf. Eustratiades (1930: 51–2, 69).

11 On the various meanings of the word θεαρχία in the writings of Ps-Dionysios, see Kharlamov (2009: 152–4). See also Lampe (1961), s.v. θεαρχία.

12 The attribution of the poem to Romanos is questionable, see Trypanis (1968: 18–25), Peltomaa (2001: 41–114) and Hörandner (2017: 37–9).

13 *Akathist Hymn* 21.16. Cf. the last verse of an unedited poem in honour of the Virgin Mary composed by Manuel Korinthios, which is preserved in Parisinus gr. 1389 (sixteenth century), f. 364v: 'ῥόδον τε θείας μυστικῆς εὐωδίας' ('rose of the divine mystical fragrance').

14 See Eustratiades (1930: 69). Unfortunately, he does not specify the source of this passage.

15 The rose metaphor is often applied to the Virgin Mary, see, for instance, the iconographic type of the Theotokos as the 'unfading rose' ('ῥόδον τὸ ἀμάραντον') and the third troparion of the well-known canon to the *Akathist Hymn* by Joseph the Hymnographer (ca. 812–886), ed. Detorakis (1997: 171). On a discussion about the 'unfading rose' metaphor and its appropriation by Modern Greek poets (Kostis Palamas, Angelos Sikelianos and Odysseas Elytes) see Hirst (2004: 93–5, 184). On the iconographic type see especially Pallas (1971: 225–38).

16 Another poem by Manuel Korinthios found in Mediolanensis Ambrosianus A 115 sup. (fifteenth/sixteenth century), f. 506v, ends in exactly the same way, see the *Database of Byzantine Book Epigrams* (DBBE), at www.dbbe.ugent.be/occ/10473 (accessed, 24 May 2019).

2.2 Poem no. 2

Μεγαλόδωρε, χαῖρε χαρμάτων πίδαξ,
ἄνασσα κόσμου, ὑπερευλογημένη,
νέμοις χαριτόβρυτον ὕδωρ μοι λόγου,
ὅφρα λιγαίνω ἐν χαρᾷ τὴν σὴν χάριν
ὑπὲρ λόγον γὰρ σὺ τεκοῦσα τὸν Λόγον
ἥγνισας, ἁγνή, τὴν βροτῶν φύτλην ξένως
λαμπρὸν χαρίτων χαῖρε ταμεῖον, κόρη.

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f. 23r **2** ὑπὲρ εὐλογημένη W

Hail, munificent spring of delights,
queen of the world, blessed above all,
may you offer me the water of speech overflowing with grace,
so that I can praise your grace joyfully.
By giving birth to the Word, beyond reason,
You, the pure one, paradoxically purified human nature.
Hail, oh maiden, bright vessel of the graces.

The second epigram contains the acrostic 'Μανουήλ' (Manuel) and is also a prayer addressed to the Theotokos, who is represented here as a spring flowing with delights. This metaphor recalls the common Marian epithet of 'Ζωοδόχος πηγή' ('Life-Giving Spring') and her depiction as such. The author asks Mary to grant him the 'water of speech', namely fluency, so that he can praise her appropriately (v. 4). A similar request and similar imagery occur in a *kontakion* in honour of the *Zōodochos Pēgē* composed by Nikephoros Kallistos Xanthopoulos (before 1256–d. ca. 1335):

Ἐξ ἀκενώτου σου πηγῆς, Θεοχαρίτωτε, ἐπιβραβεύεις μοι πηγάζουσα τὰ νάματα, ἀενάως τῆς σῆς χάριτος ὑπὲρ λόγον· τὸν γὰρ Λόγον ὡς τεκοῦσαν ὑπὲρ ἔννοιαν, ἱκετεύω σε δροσίζειν με σῇ χάριτι, ἵνα κράζω σοι· Χαῖρε ὕδωρ σωτήριον.[17]

O Lady graced by God, you reward me by letting gush forth, beyond <all> reason, the ever-flowing waters of your grace from your perpetual spring. I entreat you, who bore the Logos in a manner beyond comprehension, to refresh me in your grace that I may cry out: 'Hail redemptive waters'.[18]

17 Ed. by Koutloumousianos (1838) 413.

18 The translation is available at http://orthochristian.com/93133.html (accessed, 24 May 2019), cf. Bodin (2016: 252).

In this second epigram, it is the Virgin herself, and not Christ as in the previous epigram, who purifies and dignifies human nature by giving birth to Christ (vv. 5–6). Since Manuel was an official rhetor of the Patriarchate and used to deliver speeches on church feast days in Constantinople, it is reasonable to suppose that he was seeking the Theotokos' blessing before preaching the mystery of her conception and Christ's birth. If we compare this epigram with the previous one, we can deduce that both refer to the Annunciation/Incarnation and possibly to a speech that Manuel had to deliver on that particular feast day. One could, however, also argue that the poem refers to the feast of the Virgin as Life-Giving Spring, which was established on Easter Friday in the fourteenth century. This feast is associated with the Byzantine monastery of *Zōodochos Pēgē* in Constantinople and the veneration of its healing spring. Several Byzantine poets (e.g. Ignatios Magistros, Manuel Philes) composed poems dedicated to this monastery and to the cult of the *Zōodochos Pēgē*.[19] Manuel Korinthios devoted one of his homilies to the miracles of the *Zōodochos Pēgē* and Christ's resurrection, but the homily seems not to have been accompanied by any epigram.[20] In this epigram, he also adopts quite an elevated style by using archaising words (e.g. λιγαίνω,[21] πίδαξ, φύτλην) instead of the corresponding more common ones (ὑμνῶ, πηγή, φύσις), as well as several figures of speech (e.g. alliterations: χαρᾷ-χάριν, ἥγνισας-ἁγνή; polysemy: of the word λόγος).

2.3 Poem no. 3

Ὁ λαμπρὸς αἰγλήεις τε Κυρίου θρόνος,
ῥάβδος βασιλείας τε τῆς οὐρανίου,
ἡ δεξιὰ χεὶρ τοῦ Θεοῦ, Παναγία,
τὴν μικρὰν αἴτησίν μου εὖ δεξαμένη
ὡς ἀγαθὴ πλήρωσον ἐν τάχει, κόρη,
ῥοὴν γὰρ οἶδας τῶν ψυχικῶν δακρύων.

1–2 cf. Ps. 44.7; Hebr. 1.8

f. 23r **2** τέ W

19 Cf. Talbot (1994).

20 Its editor does not mention any epigram, see Anagnostou (2012–13). I was not able to consult the Athous Iberiticus 512, in which this homily is preserved.

21 According to Herodianus, *Partitiones*, ed. Boissonade (1819) 77, 'λιγαίνω' is a synonym for 'ὑμνῶ' ('praise'). In the *Etymologicum genuinum*, λ.199, ed. Alpers (1969) 52 and other Byzantine lexica [e.g Photios, *Lexicon*, λ.298, ed. Theodoridis (1998) 57, it acquires the meaning of 'κηρύσσω' ('preach')].

The bright and radiant throne of the Lord,
the sceptre of the heavenly kingdom,
the right hand of God, All-Holy One,
receive my little request well
and accomplish it soon, oh maiden, for you are good
and you know the flow of my spiritual tears.

This epigram could be read as a continuation of the request Manuel made in the previous poem and as the end of the series of three iambic prayers addressed to the Virgin Mary on f. 23r. Manuel repeats the same acrostic he employed in the first poem 'ὁ ῥήτωρ' and asks the Virgin to fulfil his request soon, as she is aware of his inner suffering. By comparing her with symbols of power (e.g. 'throne of Christ', 'sceptre' and 'God's right hand'),[22] he stresses her closeness to the divine and her significant role as an intermediary between God and mankind.

2.4 Poem no. 4

Στίχοι ἰαμβικοὶ εἰς τὴν κυρίαν ἡμῶν Θεοτόκον τριχῶς ἀκροστιχιζόμενοι

Μεγαλύνω σε, **θ**εῖε ναὲ Κυρίο**υ**,
ἄνυμφε νύμφη, **ἐ**λπὶς ἡμῶν Μαριά**μ**.
νῦν γὰρ σέσωκας **ὀ**λβίως σὸν οἰκέτη**ν**
οἴκτῳ μόνῳ σῷ **τ**ύμβῳ ἐγχρίμψαντά μ**ε**.
ὕμνει ψυχὴ οὖν, **ὀ**ργάνοις σεμνοῖς ὕδε**ι**,
ἥνπερ λιγαίνει **κ**όσμος ἀγγέλων ἅπα**ς**
λαμπρῶς βοῶσα· '**ε**ὐμενοῦς χαῖρε θρόν**ε**'.

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f. 24r **tit** Στίχοι ἰαμβικοὶ εἰς τὴν κυρίαν ἡμῶν Θεοτόκον τριχῶς ἀκροστιχιζόμενοι W: κυροῦ μανουὴλ τοῦ μεγάλου ῥήτορος στίχοι εἰς τὴν ὑπεραγίαν θεοτόκον οὗ ἡ ακροστιχίς· μανουὴλ· θεοτόκε, ὑμνεῖ σε L: Στίχοι τοῦ μεγάλου ῥήτορος κυροῦ ἐμμανουὴλ A || **1** μεγαλύνο L || **3** ὀλβίως Stephanides: ὀλβίω WLA | ἱκέτην A || **4** οἴκτρω L | ἐγχρίμψαντά Hörandner: ἐγχρίψαντά WL: ἐγχρίψαντα A: ἐγχρίμψαντέ Stephanides

Iambic verses on Our Lady, the Theotokos, with a triple acrostic

I magnify you, divine temple of the Lord,
bride unwedded, our hope, Miriam,
you have now leniently saved your servant
only thanks to your compassion, as I was approaching the tomb.
Sing, my soul, celebrate with holy instruments

22 Similar metaphors applied to the Theotokos can also be found in hymns composed by Manuel Korinthios, see Eustratiades (1930: 28, 68, 85) s.v. θρόνος, ῥάβδος, χείρ.

her, whom all the angels praise,
and cry splendidly aloud: 'Hail, throne of the merciful!'.

As its title indicates, the poem contains three acrostics ('Μανουήλ, Θεοτόκε, ὑμνεῖ σε', 'Manuel praises you, Theotoke'), which are highlighted by Korinthios himself in the manuscript with enlarged letters and the use of red ink. The second acrostic always starts after the fifth syllable, namely after the B5 caesura. As De Gregorio has already pointed out, the poem clearly imitates the style and form of another epigram in honour of the Theotokos, which was formerly inscribed in the church of the Monastery of Pantokrator in Constantinople.[23] This epigram was composed by Andreas Panypersebastos and bears the triple acrostic 'Ἀνδρέας, Θεοτόκε, ὑμνεῖ σε'. Korinthios' poem has a more lyrical and personal character and for this reason we cannot assume that it was also meant to be an inscription. It has previously been edited by Vasileios Stephanides and Wolfram Hörandner on the basis of Atheniensis Benaki Museum 249, TA 126, f. 3v (AD 1609), formerly known as Adrianopolensis 1099.[24] The poem can also be found in the beautiful calligraphic codex Londiniensis Burneianus 54, f. 48v (AD 1573), a collection of liturgical texts, epigrams, prayers and astronomical tables.[25]

Korinthios offers this poem to the Theotokos as a sort of praise, doxology and thanksgiving for saving him from death (v. 4). Due to its vocabulary and themes it resembles a hymn. The phrase 'ἄνυμφε νύμφη'[26] clearly recalls the refrain 'Χαῖρε νύμφη ἀνύμφευτε' of the *Akathist* and the verb 'μεγαλύνω' alludes to the so-called *Megalynaria*. The *Megalynaria* are short hymns (*troparia*), which are usually sung in the Divine Liturgy during Marian and despotic feasts and begin with the phrase 'μεγάλυνον, ψυχή μου' ('magnify, O my soul').[27] It is noteworthy that the poet addresses his soul in the last verses and prompts it to celebrate the Virgin Mary, exactly as in the *Megalynaria*. The metaphors applied to

23 On its edition and commentary, see De Gregorio (1998: 165).

24 See Stephanides (1908: 470); and Hörandner (1990: 42). The information about the folio number of the poem derives from Chatzopoulou (2017: 404).

25 A digital image of this particular folio is available at: www.bl.uk/manuscripts/Viewer.aspx?ref=burney_ms_54_f048av (accessed, 24 May 2019).

26 The Theotokos is called 'νύμφη ἄνυμφος' in a *staurotheotokion* attributed to Leo the Wise, see Eustratiades (1930: 49).

27 On *Megalynaria*, see Detorakis (1997: 95). According to Papadopoulos-Kerameus (1902: 89), Korinthios composed *Megalynaria* dedicated to the Dormition of the Virgin, which were published in 1626 in Venice by Antonios Pinellos.

the Theotokos, such as temple and throne of Christ, are very common in Marian liturgical hymns and sermons.[28]

2.5 Poem no. 5

Mαταιοτήτων ἅπαντα τυγχάνει ματαιότης,
ἅπερ οὐχ ὑπολέλειπται μετὰ θανάτου πεῖραν.
νῦν, ἀδελφοί μου, σκέψασθε τὴν ἀνθρωπείαν πλάνην·
ὁ πλοῦτος πρῶτον ἄπιστος, ἄστατος δὲ ἡ δόξα,
ὑπατιάζειν δὲ λαμπρῶς ἢ ἄρχεσθαι μετρίως
ἤδη ταῦτα ἀμφότερα λύπης μεστὰ καὶ φόβου.
λύεται δ', ὥσπερ πρωϊνὴ πάχνη, τὸ κᾶλλος θᾶττον,
οἴχεται ἡ νεότης δὲ τοῦ γήρως ἐπελεύσει.
ῥοῆς δὲ κόρος αἴτιος καὶ σύμμικτος ταῖς νόσοις,
ἡ δὲ πενία τὸν λιμὸν καὶ τὴν φθορὰν ἐπάγει
τὴν δ' ἀφελῆ ἀεί ποτε ἐλπίδα περιφέρει·
ὡς θάλασσα δ' αἱ ἀγοραὶ ταράττονται ἀγρίως
ῥηγνύμεναι ὀχλήσεσι παντοίαις ταῖς τοῦ βίου.
κακὸν ἡ ἀζυγία δὲ καὶ πλήρης ἀπορίας,
ἀλλὰ καὶ γάμος μογερὰ φέρει δεσμὰ καὶ λύπας,
ἵσταται ἐναγώνιος τοῦ γάμου ταῖς παγίσιν.
φροντίδας καὶ περισπασμοὺς ἔχει ἡ εὐτεκνία,
ἰὸν πολὺν δὲ καὶ χολὴν πάλιν ἡ ἀτεκνία.
λάμπει ὑγεία ἐν μιᾷ ἡμέρᾳ, ὥσπερ πλάνος,
οἴχεται δὲ μετέπειτα καὶ νόσων πάντα πλήρη·
συμφθάνει λύπη τὴν χαρὰν καὶ δάκρυα τὸν γέλων,
ὁ στεναγμὸς τὸν καγχασμὸν καὶ τὴν ζωὴν ὁ τάφος.
φεῦ, πάντα ἀνυπόστατα τὰ τῶν ἀνθρώπων πέλει·
οἷς γὰρ δοκοῦμεν εὐτυχεῖν, ἐν τούτοις δυσπραγοῦμεν,
συνάξωμεν τοίνυν τὸν νοῦν πρὸς μόνον τὸν δεσπότην.

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1 cf. Eccles. 1.2 || **4** πλοῦτος ἄπιστος Greg. Naz. Carm. Mor. I 2.16.9 (*PG* XXXVII.779); Bas. Ceas. Epist. 277.1.22 (Courtonne, 1966: 150); Io. Dam. Sacr. Par. (*PG* XCV.1121) | ἄστατος…δόξα Greg. Naz. Or. 7.19.3 (Boulenger, 1908: 40); Io. Chrys. In ep. 1 ad Tim. (*PG* LXII.512)

28 On the Theotokos as a 'throne of the Creator' and an 'animated temple of Christ', see, for instance, the homily of Germanos of Constantinople *On the Annunciation*, ed. Fecioru (1946) 71 and *PG* XCVIII.321. For the Theotokos as 'temple and throne of Christ' in Byzantine hymnography, see Eustratiades (1930: 28, 47–4) and the beginning of the following *theotokion* from the *Octoechos*: 'Ναὸς καὶ πύλη ὑπάρχεις, | παλάτιον καὶ θρόνος τοῦ Βασιλέως | Παρθένε πάνσεμνε' ('you are the temple and gate, the palace and throne of the King'), see *Parakletike* (1885: 365).

f. 24r **2** ἅπερ B: ἅπερ W ‖ **12** θάλασσα B: θάλασσαι W | ἀγρίως B: ἀγρίαι W ‖ **16** ἴσταται B: ἴσταται W | παγίσι B ‖ **20** νόσων B: νόσον W ‖ **21** λύπη B: λύπει W | τὸν B: τῶν W ‖ **22** καγχασμὸν B: καχασμὸν W

All is vanity of vanities,
all that does not remain after the experience of death.
Now, my brothers, think of human deceit:
Firstly, wealth is untrustworthy and glory is unstable;
being splendidly a consul or whether ruled moderately,
both those two are full of sorrow and fear.
Beauty fades rapidly like the morning hoar frost,
youth is gone because of the arrival of the old age.
Satiety is the cause of the flowing and it is contiguous with diseases,
poverty brings hunger and decay,
it always brings a naïve hope,
the marketplaces are savagely shaken like the sea,
torn in pieces by every kind of worldly disturbance.
Celibacy is evil and full of deprivation,
but marriage also brings painful chains and distress,
it stands in agony by the traps of marriage.
Parenthood has cares and distraction
while childlessness is full of venom and bitterness.
Health shines one day deceitfully,
and the next day is gone and everything is full of sickness.
Sorrow comes after happiness and tears after laughter,
groaning after loud laughter and the grave after life.
Alas, everything in mankind is unstable;
in those things we think we prosper in, in those we fail,
let us therefore draw our attention only to the Lord.

The poem on vanity has been copied not this time by Manuel but by a contemporary hand, possibly one of his students or colleagues in the Patriarchate. It is striking that both this (on f. 124r) and epigram 7 (f. 124v) have been written on the same folium, along with another epigram copied by Manuel (nos 4 and 6). Since poems 5 and 7 are written in the lower half of the folium, it is reasonable to assume that they were added at a later stage of the manuscript's production. In addition to being included in Wellcomensis MS.498, the poem can be found in Oxoniensis Baroccianus 125 (f. 237r), the sixteenth-century manuscript on which Maximilian Treu based his edition.[29] The Baroccianus seems to preserve better readings than the Wellcomensis manuscript, although it

29 See Vassis (2005: 449). Treu (1896: 539) wrongly attributed this poem to Manuel Holobolos (ca. 1245–d. 1310/14).

was not copied by Korinthios either. The poem's acrostic, 'Μανουὴλ ὁ ῥήτωρ καὶ φιλόσοφος' ('Manuel rhetor and philosopher'), is marked in MS.498 with red ink and enlarged initials.[30] This is the only known poem by Korinthios to be composed in political verses. It expresses the vanity and instability of certain aspects of human life in the style of Ecclesiastes and especially of Gregory of Nazianzus.

As in Gregory's poem, *On the Paths of Life*,[31] positive elements (e.g. πλοῦτος, δόξα, κάλλος, νεότης, κόρος, γάμος, εὐτεκνία, ὑγεία, χαρά, γέλως, καγχασμός, ζωή) are immediately followed by contrasting negative ones (λύπη, φόβος, γήρως, νόσος, πενία, λιμός, ἀζυγία, ἀτεκνία, νόσος, λύπη, δάκρυα, στεναγμός) confirming Gregory's words: 'κοὐδὲν ἐν ἀνθρώποισι καλόν, κακότητος ἄμικτον' ('there is no good in mankind that is not mixed with evil').[32] Once Manuel has reached the peak of worldly vanity by talking about death, he offers the reader a similar piece of advice to that given by Gregory of Nazianzus: people should direct their minds to God.[33] Although he reproduces similar thoughts to those found in Gregory's poem (and John of Damascus' paraphrase of it),[34] he also uses some metaphors that are not attested elsewhere (e.g. κάλλος-πάχνη, ἀγοραί-θάλασσα) and seem to reflect his own ideas and creativity.

2.6 Poem no. 6

Ὁ κυριεύων τῶν ὅλων Παντοκράτωρ
ῥώμῃ κραταιᾷ καὶ φύσει ἀκαμάτῳ
ἠμπέσχετο βρότειον ἀρρήτως φύτλην,
τὸ βασίλειον μὲν κράτος φυᾷ ἔχων
ὡς ἱερεὺς δὲ τὸν ποδήρη ἐκ νόμου
ῥευστὴ βοάτω 'Κυρίῳ δόξα' φύσις.

f. 24v

30 It is not clear what the exact meaning of the term 'philosopher' is here. Does it indicate an office analogous with that of the 'consul of the philosophers' held in the eleventh century by Michael Psellos and John Italos? However, Korinthios' writings are not directly related to philosophy and, to my knowledge, this is the only example in which this characterisation is applied to him.

31 See Gregory of Nazianzus, *Carmina moralia* I 2.16 (*PG* XXXVII.779–81).

32 Gregory of Nazianzus, *Carmina moralia* I 2.16, 7 (*PG* XXXVII.779). This is the opposite of the well-known proverb 'οὐδὲν κακὸν ἀμιγὲς καλοῦ'.

33 This final verse recalls Gregory's ideas about the so-called *theōria* and the acquisition of divine knowledge through contemplation and direct mystical experience of the divine. See Beeley (2008). Cf. the ending of Gregory's poem *On the Paths of Life* (vv. 35–6, ed. *PG* XXXVII.781), in which he advises people to set their thoughts on God, because their only hope is the heavenly enlightenment derived from the Holy Trinity. In a similar way Gregory ends his poem *On Vanity*, II 1.32, 55–6, ed. Simelides (2010) 115 by urging people to flee towards heaven, to the ineffable light of the Holy Trinity.

34 John of Damascus, *Sacra Parallela* (*PG* XCV.1121C-1125D).

The Almighty, who dominates everything
with mighty strength and inexhaustible nature,
was ineffably clothed with mortal nature,
having the kingly power by nature
and the priestly robe in accordance with the law.
Let flowing nature cry out 'Glory to the Lord!'.

This epigram has been copied in the manuscript by Korinthios and, like numbers 1 and 3, bears the acrostic 'ὁ ῥήτωρ'.[35] It begins by emphasising God's sovereignty, his divine condescension and the paradox of his incarnation: although Christ as the Almighty rules over everything, he humbled himself to assume human nature. The metaphor of Christ's humanity as a garment (v. 3) is in accordance with the symbolism of the Byzantine theological tradition, especially of the early Church Fathers.[36] For instance, a similar image occurs in a Byzantine florilegium containing sayings of Cyril of Alexandria:

> ἀναγκαίως ὁ ζωοποιὸς τοῦ Θεοῦ Λόγος τὴν θανάτῳ κάτοχον ἠμπέσχετο φύσιν, τουτέστιν τὴν καθ' ἡμᾶς ἤτοι τὴν ἀνθρωπίνην, ἵνα ταύτην ἀπαλλάξῃ καὶ θανάτου καὶ φθορᾶς.[37]
>
> It was necessary for the life-giving Word of God to wear the nature possessed by death – namely our human one – in order to release it from death and corruption.

In the subsequent lines the epigram continues by stressing that Christ has indeed two natures, the divine one by nature and the other by law. Here the word 'ποδηρής' (v. 5) functions as symbol of human nature. The closest parallel to this image comes from Athanasios (third/fourth century), another prominent theologian of Alexandria. In his second oration against the Arians, he compares Christ with the biblical priest Aaron, who was dressed by Moses in a robe ('ποδηρή') in his consecration ritual (see Lev. 8.7, cf. Ex. 28.4 and 40.13):

35 The acrostic is not highlighted in the codex.
36 On the metaphor of Christ's humanity as a garment, see also Sumner (2014: 22).
37 Ed. Hespel (1955) 183. Cf. I Cor. 15: 53–4.

> ὅτε δὲ ἠθέλησεν ὁ πατὴρ ὑπὲρ πάντων λύτρα δοθῆναι καὶ πᾶσι χαρίσασθαι, τότε δὴ ὁ λόγος, ὡς Ἀαρὼν τὸν ποδήρη, οὕτως καὶ αὐτὸς ἔλαβε τὴν ἀπὸ γῆς σάρκα Μαρίαν ἀντὶ τῆς ἀνεργάστου γῆς ἐσχηκὼς μητέρα τοῦ σώματος, ἵνα ἔχων τὸ προσφερόμενον αὐτὸς ὡς ἀρχιερεὺς ἑαυτὸν προσενέγκῃ τῷ πατρὶ καὶ τῷ ἰδίῳ αἵματι πάντας ἡμᾶς ἀπὸ τῶν ἁμαρτιῶν καθαρίσῃ, καὶ ἀπὸ τῶν νεκρῶν ἀναστήσῃ.[38]
>
> At the time when the father wished redemption to be given to everyone and be granted to all, then the Word received the earthly flesh – as Aaron <donned> the priestly robe, and had Maria as the mother of his body instead of the unwrought earth – so as to have an offering; he, as a high priest, offers himself to the Father, and <offers> his own blood in order to cleanse us all from our sins and raise us from the dead.

The high priest Aaron, Moses' brother, became a priest after Moses had received God's command to consecrate him. Similarly, the phrase 'ἐκ νόμου' in the poem might mean that Christ clothed himself in human nature in accordance with divine law. A similar image occurs in Didymos' interpretation of Zachariah 3: 3–5, in which he sees the purification of the priest Joshua as a prefiguration of Christ clothed with the garment of mortality. The comparison between the two is facilitated by the fact that Joshua's name in Greek is Ἰησοῦς:

> Ἀφαιρέσεως γεγενημένη[ς] τῶν ῥυπαρῶν ἐνδυμάτων, ἐνδύεται ἀρχιερεὺς ὢν μέγας καὶ ἀληθινὸς τὸν ἱερατικὸν χιτῶνα ποδήρη καλούμενον, καὶ κίδαριν περιτίθεται καθαράν, καὶ περιβάλλεται ὑφ' ἡμῶν ἱμάτιον τὸ ἀνθρώπου σῶμα.[39]
>
> Having removed the filthy garments, as great and true high priest, he puts on the priestly tunic called *podērēs* and dons a clean turban, and is invested by us with the garment of a human body.[40]

Apart from the above-mentioned texts, Christ is also portrayed as wearing a priestly robe ('ποδηρή') in Revelation 1.13, but in that case the garment is not associated with his humanity. The comparison of Christ's human nature to a priestly tunic (vv. 4–5) might also recall the Christological symbolism of the clerical vestment in Byzantium, which contributed to the mystagogical interpretation of the Divine Liturgy, as well as to the representation of priests as a living image of Christ on earth.[41] In the last

38 Athanasios of Alexandria, *Oration Against the Arians*, II 7, 6, ed. Metzler and Savvidis (1998) 184.

39 Didymos, *Commentary on Zachariah*, ed. Doutreleau (1962) 306.

40 Tr. by Hill (2006: 73), slightly modified.

41 For instance, the so-called *phelonion* (chasuble) symbolises the chlamys that the Roman soldiers put on Christ during his Passion. On clerical vestments in Byzantium and its symbolisms, see Woodfin (2012); and Kourkoulas (1960).

verse of the poem, Korinthios exhorts the fickle human nature, which here symbolises all mortals, to praise God with a doxology.

2.7 Poem no. 7

Mέγιστον ὄντως θαῦμα θείων ἀγγέλων
ἀνεκλάλητον καὶ βροτῶν γλώσσαις ὅλων·
νύμφη ἄνυμφε, μῆτερ ἁγνὴ τοῦ λόγου,
ὃς γὰρ τὸ πλάτος ἠψίδωσε τοῦ πόλου,
ὑπέσχε καὶ γῆς τὸν βυθισμὸν ἀσχέτως,
ἡλίου ἀπήστραψε τ᾽ ἐν κόσμῳ φάος,
λαμπρὰν δ᾽ ἀνέσχε τῆς σελήνης ἀκτίνα.
οὗτος σοι ἐνῴκησεν εἰς σωτηρίαν
ῥοώδεος φύσιος ἀνθρώπων, κόρη,
ἥνπερ σέσωκε καὶ ἐδόξασε ξένως
τῷ τοι χάριν σοι ἐκβοῶμεν εἰδότες·
‘**ὦ** χαῖρ᾽ ἀύλων οὐσιῶν ὑπερτέρα,
ῥεῖθρον τε, χαῖρε, πρόξενον θείου βίου’.

---

f. 24v **5** βρυθισμὸν W ‖ **8** εἰν ᾤκησεν W

This is indeed a great miracle which cannot be expressed
by the tongues of divine angels or of any mortals.
Unwedded bride, pure mother of the Word,
the one who curved the width of the sky,
bore unlimitedly the depth of earth,
flashed forth the light of the sun in the world
and raised the bright ray of the moon.
He dwelt in you, o maiden, to save
the fluid nature of mortals,
which He paradoxically saved and glorified.
We therefore[42] cry out to you, since we know your grace:
‘Hail, you who are higher than the immortal beings;
hail, stream, the source of divine life’.

This poem is addressed to the Virgin Mary and presents Christ’s conception as an ineffable miracle, which can be expressed neither by mortals nor by angels. The author refers to scenes from the *Hexameron* and stresses the paradox of the Creator of all natural elements (heaven and earth, sun and moon) being made

42 For the translation of τῷ τοι as ‘therefore’, see LSJ, s.v. ὁ [VII.2].

incarnate. By being conceived and inhabiting the flesh, he glorified the 'fluid' human nature and offered salvation to mortals. The poem ends with a salutation to the Virgin Mary, who is identified as the source of salvation and as the holy figure who stands higher than all saints and angels.

2.8 Poem no. 8

Εἷς τρισαιγλήεις εὐρυμέδων Θεὸς	*One, three times radiant, widely ruling God*
Ἄναξ, γόνε παμφαὴς	King, shining offspring
αὐτοκρατόρων τῆς γῆς,	of the earthly emperors,
ὧν κράτος δεύτερον ἦν	whose power is second
Θεοῦ τῶν ὅλων ἀρχῆς,	<only> to God's sovereignty over all,
δέδεξο νῦν μερισμὸν	accept now part of the division
τῶν ζωδίων μερικόν.	of the zodiac signs.
Τῶν ζωδίων οὐρανοῦ,	Among the heavenly zodiac
τὰ μὲν ἄρσενα ἐστί,	signs, some are masculine,
τὰ δὲ θήλεα φασὶ	others are called feminine,
καὶ ἃ ἰσημερινά,	and some equinoctial,
ἃ δὲ πάλιν τροπικὰ	while others <are> solstitial
καὶ τὰ μὲν γε στερεά,	and some solid,
δίσωμα δὲ τὰ λοιπά.	and the rest are bicorporeal.
εἰσὶν οὖν ἀρσενικὰ	Thus, the masculine are
ὁ Κριός, οἱ Δίδυμοι,	Aries, the Gemini,
Λέων ὁμοῦ καὶ Ζυγός,	Leo along with Libra,
Τοξότης ἐπισπερχής,	the hasty Sagittarius
Ὑδροχόος τε εὐθύς.	and the straightforward Aquarius.
ἕξ τοίνυν ἀρσενικά,	Six are masculine
τὰ λοιπὰ δὲ θηλυκά·	and the rest feminine:
Ταῦρος ἰσχυρογενὴς	Taurus <who was> born strong,
καὶ Καρκῖνος δυσκλεής,	and the inglorious Cancer,
ἡ Παρθένος ἡ σεμνὴ	the modest Virgo,
καὶ Σκορπίος ὁ λυγρός,	and the baneful Scorpio,
ὁ Αἰγόκερως ὁμοῦ	along with Capricorn
καὶ Ἰχθύες οἱ ψυχροί.	and the cold Pisces.

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f. 31v **tit.** Εἷς τρισαιγλήεις εὐρυμέδων Θεὸς W: om. V || **18** τέ VW || **19** τοίνυν W: γοῦν τὰ V || **20** τὰ λοιπὰ δὲ W: πάλιν ταῦτα V || **21** ἰσχυρογενὴς W: ἴφθιμος ἐστὶ V || **23** σεμνὴ V: αἰδὼς W || **24** σκορπίος V: σκορπῖος W

ἰσημερινὰ δ’ εἰσὶν		The equinoctial are
ὁ Κριὸς καὶ ὁ Ζυγός.		Aries and Libra.
ὁ δὲ Καρκῖνος ἐστὶ		Cancer is instead
τροπικός γε θερινὸς	30	solstitial, namely in summer,
καὶ Αἰγόκερως ἐστὶ		and Capricorn is
τροπικός, χειμερινός·		solstitial in winter,
ἀλλὰ δὴ καὶ στερεὰ		but the solid ones
Ταῦρος καὶ Λέων εἰσὶν		are Taurus and Leo
καὶ Σκορπῖος ὁ λυγρὸς	35	and the baneful Scorpio
Ὑδροχόος θ’ ὁ ὑγρός,		and the moist Aquarius;
τὰ τέτταρα δὴ ταυτὶ		those four
στερεὰ σοφοὶ φασί.[43]		are called solid by wise men.
δίσωμα δὲ Δίδυμοι,		Bicorporeal <signs> are the Gemini
καὶ Παρθένος ἡ κεδνή,	40	and the noble Virgo,
ὁ Τοξότης ὁ ὀξὺς		the keen Sagittarius
καὶ Ἰχθύες οἱ ψυχροί.		and the cold Pisces.
οὕτως ἔχει, ὡς εἰπεῖν,		This is, so to speak,
τῶν ζωδίων ἡ σκηνή,		the representation of the zodiac signs,
ἣν ζωδιακὸν φαμὲν	45	that we call a zodiac cycle
κύκλον τρέχοντα αἰέν.[44]		which is always in motion.

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29 ὁ δὲ καρκῖνος V: ὁ καρκῖνος δὲ W || **31** αἰγόκερως ἐστὶ W: πάλιν αἰγόκερως V || **37** τέσσαρα V

This poem differs significantly in meaning and form from the other poems preserved in the same codex. It is an anonymous astrological poem, which offers in oxytone accentual heptasyllables a classification of the zodiac signs into *masculine-feminine*, *equinoctial-solstitial* and *solid-bicorporeal* similar to that of Ptolemy’s *Tetrabiblos* (1.12–13). The *Tetrabiblos* or *Apotelesmatika* was a highly influential text and contributed to the development of astronomy and astrology in medieval times. What is interesting in this simplified version of Ptolemy’s interpretation of the zodiac is that the author dedicates it to a member of the imperial family. By using a theological title, he also attempts a Christianisation of the topic.[45] In Byzantium there was no clear distinction between astronomy and astrology; some prominent Byzantine scholars condemn astrology (especially the impact of horoscopes and predictions), while others studied it and composed their own astrological texts.[46] George Chrysokokkes (fourteenth century), an astronomer and physician who studied in Trebizond and composed an influential introduction to Persian astronomy

43 The accentuated form of the enclitic in the manuscript has been retained *metri causa*, namely to preserve the rhythmical oxytone line-ending. Cf. verse 45.

44 This is a poetic form of ἀεί, see LSJ s.v.

45 The poetic epithet τρισαγλήεις is a *hapax legomenon* and clearly recalls the Holy Trinity.

46 On astrology and astronomy in Byzantium, see Magdalino (2006; 2017); Hunger (1978: II.221–60); and Tihon (2017b).

entitled *Persian Syntax*, was one such scholar.[47] A text that is often attributed to him, *Ancient and Modern Toponyms* (f. 31r), immediately precedes the astrological poem in MS.498 (f. 31v) and one might therefore think that he was the author of that poem. Another possible candidate is Michael Chrysokkokes (fifteenth century), who is the author of the so-called *Hexapterygon*, a Byzantine adaptation of the Jewish astronomical treatise *Shesh Kenaphayim* (*Six Wings*) by Immanuel Bonfils, which follows the poem on f. 32r.[48] However, neither of those authors are known for composing verses.

Korinthios also transcribed this poem on f. 55v of Athous Vatopedinus 188 (late fifteenth century) after an anonymous fragment related to the *Hexapterygon*. Some of the Jewish astronomical tables of the *Hexapterygon* are concerned with the zodiac signs and thus it is not a coincidence that this astrological poem is transmitted in both codices close to the *Hexapterygon*. Its present edition is based on both manuscripts.[49] Since Korinthios' hand can be identified in both manuscripts[50] and he was well versed in composing poems in different metres, one may wonder if he is indeed the author of the astrological poem. This is an attractive hypothesis, but I hesitate to support it due to the opening of the poem, which seems to address an emperor, as well as the fact that no other text of Korinthios' is related to astronomy.[51] A more plausible author may be Matthew Kamariotes (d. 1489/90), Korinthios' predecessor at the Patriarchal School, who adapted a Jewish astronomical treatise in Greek (*Pure Way*) and also had broader theological, philosophical and astronomical interests.[52] Interestingly, the *Pure Way* of Kamariotes is preserved along with the *Hexapterygon* in codex Leidensis BPG 74E.[53]

47 This text was written around 1347 and was widely transmitted in Byzantium, see *ODB*, s.v. Chrysokokkes, George; and Tihon (2017b: 192).

48 On Chrysokkokes' *Hexapterygon*, see Solon (1970); and Tihon (2017a: 324–8). See also Tihon (Chapter Five) in this volume.

49 I am grateful to the monks of the Holy and Great Monastery of Vatopedi on Mount Athos for sending me a photograph of f. 55v.

50 Both Rudolf Stefec and Georgi Parpulov believe that the poem was transcribed in MS.498 by Korinthios himself. They expressed this opinion to Petros Bouras-Vallianatos viva voce. As for the identification of Korinthios' hand in Athous Vatopedinus 188, see Stefec (2013: 316). See also the description of the manuscript in Tihon (2017a: 337–40).

51 The list of Korinthios' works compiled by Papadopoulos-Kerameus (1902) does not include any work on astronomy, but it seems he had some interest in this area, as he copied astronomical texts in W and V.

52 On Kamariotes, see Papadakis (2000); and Chatzimichael (2002). On the astronomical works of Kamariotes (e.g. on the astrolabe, solar eclipses, astronomical method), see Chatzimichael (2002: 160–70, 443–6).

53 For a description of the manuscript, see De Meyier (1965: 139–42). I was not able to consult it to detect whether the astrological poem is preserved there as well.

Other likely candidates for authorship of this poem could be sought among the distinguished astronomers and astrologers of the fourteenth century, who contributed to the so-called revival of astronomy.[54] They include Theodore Meliteniotes, John Abramios and Isaac Argyros. Meliteniotes (d. 1393) was a prominent theologian and head of the Patriarchal School at Constantinople, who composed the so-called *Astronomical Tribiblos*, a textbook on astronomy based on Ptolemy and Theon of Alexandria.[55] The same author is believed to have composed a long poem in political verses entitled *On Sōphrosynē* (*On Prudence*). The didactic tone of the astrological poem, as well as the fact that, as a patriarchal official, Korinthios could easily have had access to Meliteniotes' writings, supports the hypothesis that he might have composed it. On the other hand, Abramios was mainly an astrologer and, according to David Pingree, he was the personal astrological advisor of the Emperor Andronikos IV Palaiologos (r. 1376–9).[56] Could the same emperor be the addressee of the astrological poem? This is a question that cannot be answered with certainty. What is also noteworthy is that Abramios introduces one of his astrological collections (Florentinus Laurentianus gr. plut. 28.16) with a hexametric poem on the significance of divine knowledge.[57] As for Isaac Argyros (ca. 1300–75), he was a polymath, a contemporary of George Chrysokkokes, who compiled the so-called new astronomical tables based on Ptolemaic astronomy and his poems are scattered throughout several codices.[58]

Given the poem's metre, I tend to believe that the author was not only familiar with astronomy, but also with hymnography.[59] To be more specific, the poem has been composed in trochaic oxytone unprosodic heptasyllables, a metre which is associated with hymnography and popular songs.[60]

54 On this revival of astronomy in the fourteenth century, see Mavroudi (2006: 93–4); Tihon (2017b: 191–4); and Fryde (2000: 343–51). Cf. the contribution of Theodore Metochites to the revival of astronomy in Paschos and Simelidis (2017).

55 On Meliteniotes, see Tihon (2017b: 192); Tihon (1996: 254); and Hunger (1978: II.253).

56 On Abramios, see Pingree (1971); Mavroudi (2006: 72); Tihon (1996: 273–4); and Hunger (1978: II.254–5).

57 On this collection, see Pingree (1971: 199); and Tihon (1996: 273–4). On the poem see the *Database of Byzantine Book Epigrams* (DBBE), at www.dbbe.ugent.be/occ/2487 (accessed, 24 May 2019).

58 According to David Pingree, Argyros was a student of the eminent Byzantine scholar Nikephoros Gregoras and 'the leading Byzantine champion of Ptolemaic astronomy in the 1360s and 1370s', see *ODB*, s.v. Argyros, Isaac; Tihon (1996: 251–2); and Nicolaidis (2011: 112–13). On his on his poetic oeuvre, see the Index auctorum, s.v. Isaac Argyrus, in Vassis (2005: 923) and his treatise on poetic metre, which is transmitted in many manuscripts.

59 E.g. Kamariotes and Korinthios are known for their rich hymnographic oeuvre.

60 On the metre of this poem, see Lauxtermann (2019: 324). For an introduction to the use of accentual octasyllables and heptasyllables in Byzantium, see Lauxtermann (1999: 55–68) and cf. the heptasyllables of two popular spring songs (1999: 87–8).

The following Byzantine *Megalynaria* on the feast of Christ's Purification offer representative examples of the same accentual metre.[61]

Ἀκατάληπτον ἐστὶν	That which has been accomplished
τὸ τελούμενον ἐν σοὶ	within you is incomprehensible,
καὶ ἀγγέλοις καὶ βροτοῖς,	to both angels and mortals,
μητροπάρθενε ἁγνή.[62]	pure virgin-mother.
Ἀγκαλίζεται χερσὶν	The aged Symeon
ὁ πρεσβύτης Συμεὼν	embraced in his arms
τὸν τοῦ νόμου ποιητὴν	the creator of the law
καὶ δεσπότην τοῦ παντός.	and the ruler of all.

To conclude, one could argue that the poem might have multiple functions; apart from being an introduction to the twelve signs of the zodiac, it could also refer to an actual Ptolemaic table or to an actual representation of the zodiac and its main characteristics like the zodiac miniature that precedes Ptolemy's *Handy Tables* in the luxurious ninth-century codex, Vaticanus gr. 1291 (f. 9r).[63] The sun is depicted in the middle of this zodiac cycle and it recalls the opening of the astrological poem and the characterisation of the dedicatee as παμφαής (v. 1).

3 Conclusion

To sum up, most of the epigrams are theological and at the same time encomiastic, highlighting Mary's miraculous conception and the Incarnation of Christ. They share similar language and motifs with liturgical hymns, especially those related to the Annunciation (e.g. *Akathist Hymn*). The astrological poem is of a different nature; its topic fits with the general content of the manuscript and reveals an interest in astrology in late fifteenth-century Constantinople. Some epigrams in the collection express the author's distress and the pessimism of his own times (1, 3, 5). The same air of melancholy pervades the appended unedited

61 These *Megalynaria* are often attributed to the Patriarch Germanos I (715–30), but their authorship is problematic – see Paranikas (1875–6: 19). The same oxytone trochaic metre appears in a common scribal note in the manuscripts of the late Byzantine period: 'ἄρξου χείρ μου ἀγαθὴ | γράφε γράμματα καλά' ('begin my good hand, write good letters') see Vassis (2005: 77) and the *Database of Byzantine Book Epigrams* (DBBE), at www.dbbe.ugent.be/types/5030 (accessed, 9 July 2019), as well as in the popular early modern Greek children's song: 'φεγγαράκι μου λαμπρό, | φέγγε μου να περπατώ, | να πηγαίνω στο σκολειό | να μαθαίνω γράμματα, | γράμματα σπουδάγματα | του Θεοῦ τα πράγματα' ('my shining moon, shine on me so I can walk, go to school, learn letters, letters and knowledge, God's things'). For other examples of the same metre, see Lauxtermann (2019: 324).

62 The first verses of Korinthios' poem 7 have a similar meaning.

63 Reproduction available at https://digi.vatlib.it/view/MSS_Vat.gr.1291/0022 (accessed, 24 May 2019). Cf. the last four verses of the poem, which seem to refer to a zodiac cycle and its representation ('σκηνή'). On this translation of the word σκηνή see Lampe (1961) s.v., however, it can also be interpreted differently, e.g. as 'celestial tent', see Bauer s.v.

poem by Korinthios, a prayer in elegiacs, in which Manuel asks the Virgin to miraculously save her holy city and its Christian population from its terrible sufferings in the same way that she had done in the past.[64]

Appendix

Unedited poem by Manuel Korinthios[65]

Ἠρωελεγεῖον[66]

Ὡς τὸ πάλαι Βύζαντος ἐρύσαο ἱερὸν ἄστυ
αἰχμῆς βαρβαρικῆς οἴδμασιν εἰναλίοις
τοὺς μὲν σὺν νήεσσι καλύψασα, τοὺς[67] δ' ἐπὶ χέρσου[68]
δούρασι καὶ ξίφεσι δείξασ' ἀρτιφάτους,[69]
ὡς καὶ νῦν, δέσποινα, πιεζομένοισιν ἀρήγοις
δυσσεβέων ὑπ' Ἄγαρ σκυμνοτόκου σκυλάκων.
μέχρι τίνος, δέσποινα, βλέψειεν[70] οἰκέτας οἰκτροὺς
ὧδ'[71] αἰκιζομένους, δεινά τε θλιβομένους;
μὴ παρίδῃς μή, ἄνασσα, τεᾶς δεόμεθα κάκωσιν
λήξιος εὐσεβέος,[72] δὸς χάριν ἀντομένοις.

Just as you saved the holy city of Byzas long ago
from the barbarian spear by covering those <barbarians> and their
ships with sea waves and by rendering others – those who were on land –
freshly killed with spears and swords,
likewise, my lady, please assist now also those who are oppressed
by Hagar, the whelp-bearer of impious dogs.
Until when, my lady, will you witness your pitiful servants being
tortured like this and terribly sad?
Do not ignore <us>, my queen, do not; we beg of your piety
to put an end to this maltreatment; grant grace to <your> supplicants.

64 The victory of the Byzantines against the Avars in 626 during the siege of Constantinople was attributed to the intervention of the Theotokos, as the Byzantine chronicles and the second poem of the *Akathist Hymn* attest. The Rus' defeat by the Byzantines in 860 and the Ottoman defeat in 1422, outside the walls of Constantinople, have also been credited to the Theotokos.

65 The poem is preserved in Athous Iberiticus 159 (fifteenth century), f. 35v, and in Mediolanensis Ambrosianus A 115 sup. (fifteenth/sixteenth century), f. 506v. Both have been consulted. I am grateful to the monk Theologos, librarian of the Monastery of Iviron on Mount Athos, who kindly sent me a photograph of this folio.

66 τῇ πανάγνῳ θεομήτορι Ambrosianus.

67 οὓς codd.

68 χέρσον Iberiticus.

69 ἀρκιφάτοις codd.

70 βλέψεαι codd.

71 ὦδ' Iberiticus.

72 Epic genitive form of 'εὐσεβές'.

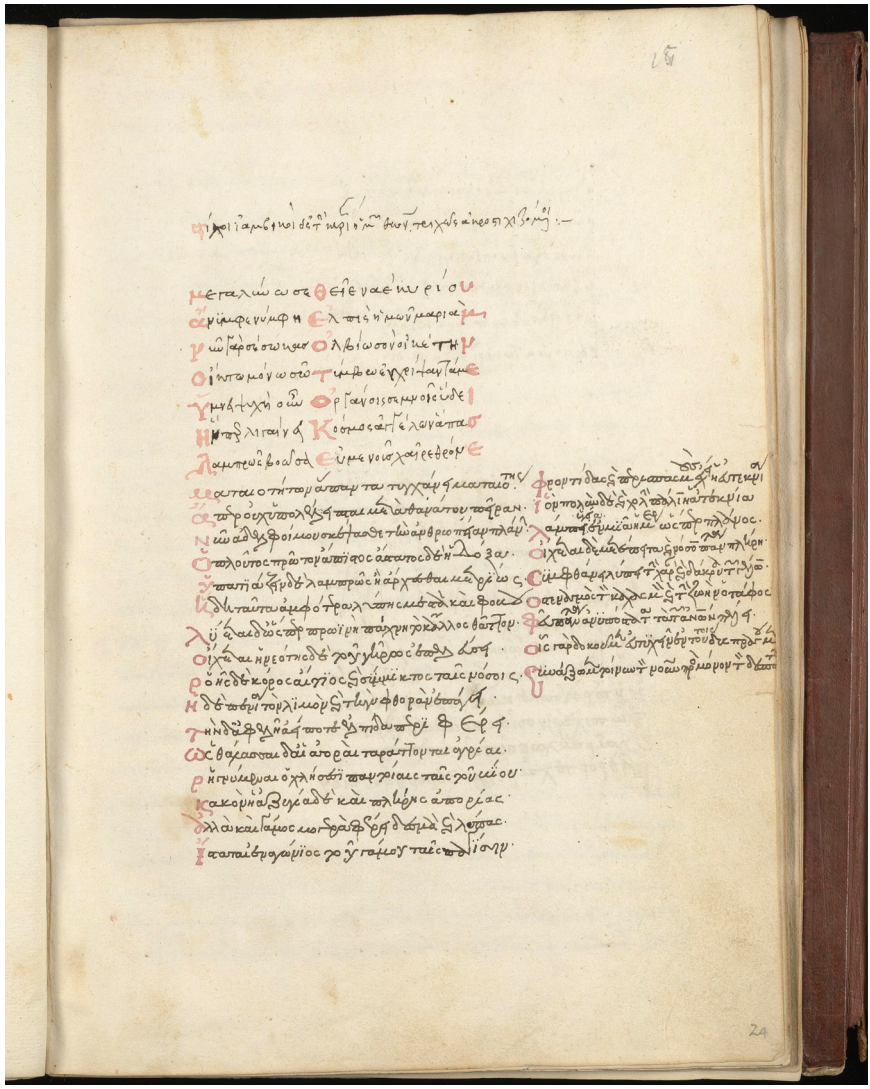

Figure 6.1 Londiniensis Wellcomensis MS.498, f. 24r.
© The Library at Wellcome Collection, London.

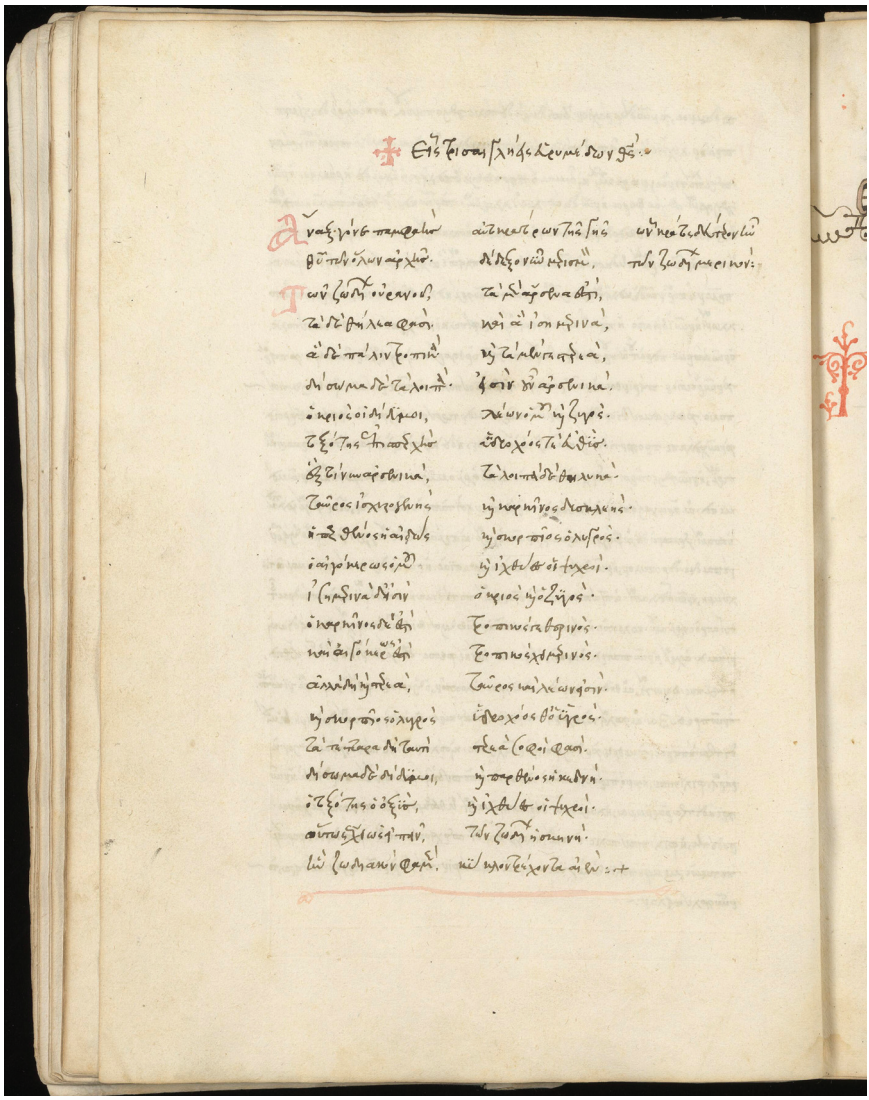

Figure 6.2 Londiniensis Wellcomensis MS.498, f. 31v.

Bibliography

Alpers, K. (ed.). 1969. 'Etymologicum Genuinum quod vocatur ediderunt A. Adler† et K. Alpers, litttera λ', in K. Alpers (ed.), *Bericht über Stand und Methode der Ausgabe des Etymologicum Genuinum (mit einer Ausgabe des Buchstabe Λ)*. Copenhagen: Munksgaard, 29–53.

Anagnostou, M. (ed.). 2012–13. 'Μανουὴλ Κορινθίου τοῦ μεγάλου ρήτορος Λόγος στὴν Ἀνάσταση καὶ στὴν Ζωοδόχο Πηγή', *Βυζαντιακά* 30: 365–80.

Beeley, C. A. 2008. *Gregory of Nazianzus on the Trinity and the Knowledge of God*. Oxford: Oxford University Press.

Bodin, H. 2016. '"Rejoice, spring": The Theotokos as Fountain in the Liturgical Practice of Byzantine Hymnography', in B. Shilling and P. Stephenson (eds.), *Fountains and Water Culture in Byzantium*. Cambridge: Cambridge University Press, 246–64.

Boissonade, J. F. (ed.). 1819. *Herodiani partitiones*. London: In aed. Valpianis.

Boulenger, F. (ed.). 1908. *Grégoire de Nazianze. Discours funèbres en l'honneur de son frère Césaire et de Basile de Césarée*. Paris: Picard.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59: 275–326.

Chatzimichael, D. 2002. *Ματθαίος Καμαριώτης: Συμβολή στη μελέτη του βίου, του έργου και της εποχής του*. Aristotle University of Thessaloniki: PhD thesis.

Chatzopoulou, V. 2017. Κατάλογος ἑλληνικῶν χειρογράφων τοῦ μουσείου Μπενάκη (16ος-20ὸς αιώνας). Athens: Benaki Museum.

Courtonne, Y. (ed.). 1966. *Saint Basile. Lettres*, vol. 3. Paris: Les Belles Lettres.

Danker, W., Bauer, W. and Arndt, W. 2000. *A Greek-English Lexicon of the New Testament and other Early Christian Literature*. Chicago, IL: University of Chicago Press [=Bauer].

De Gregorio, G. 1998. 'L'iscrizione metrica di Andreas panhypersebastos nella chiesa meridionale del monastero del Pantokrator a Costantinopoli', in I. Vassis, G. Heinrich and D. Reinsch (eds.), *Lesarten: Festschrift für Athanasios Kambylis zum 70. Geburstag dargebracht von Schülern, Kollegen und Freunden*. Berlin and New York: De Gruyter, 161–79.

De Meyier, A. K. 1965. *Codices Bibliothecae Publicae Graeci*. Leiden: Bibliotheca Universitatis Lugduni Batavorum.

Detorakis, T. 1997. *Βυζαντινή υμνογραφία*. Heraklion: Ekdoseis Detorakis.

Doutreleau, L. (ed.). 1962. *Didume l'Aveugle: Sur Zacharie*. Paris: Éditions du Cerf.

Eustratiades, S. 1930. *Ἡ Θεοτόκος ἐν τῇ Ὑμνογραφίᾳ. Ἁγιορείτικη Βιβλιοθήκη*, vol. 6. Paris: Champion.

Fecioru, D. (ed.). 1946. 'Un nou gen de predica in omiletica ortodoxa', *Biserica Ortodoxa Romana* 64: 65–91, 180–92, 386–96.

Fryde, E. B. 2000. *The Early Palaeologan Renaissance (1261–c.1360)*. Leiden: Brill.

Gritsopoulos, T. A. 1966. *Πατριαρχικὴ Μεγάλη τοῦ Γένους Σχολή*, vol. 1. Athens.

Hespel, R. (ed.). 1955. *Le florilège cyrillien réfuté par Sévère d'Antioche*. Louvain: Université de Louvain.

Hill, R. C. (ed.). 2006. *Didymus the Blind: Commentary on Zechariah*. Washington, DC: Catholic University of America Press.

Hirst, A. 2004. *God and the Poetic Ego: The Appropriation of Biblical and Liturgical Language in the Poetry of Palamas, Sikelianos and Elytes*. Bern: Peter Lang.

Hörandner, W. 1990. 'Visuelle Poesie in Byzanz', *Jahrbuch der Österreichischen Byzantinistik* 40: 1–42.

Hörandner, W. 2017. *Η ποίηση στη βυζαντινή κοινωνία, μορφή και λειτουργία*. Athens: Kanaki Editions.

Hunger, H. 1978. *Die hochsprachliche profane Literatur der Byzantiner*, vol. 2. Munich: Beck.

Kazhdan, A. (ed.). 1991. *The Oxford Dictionary of Byzantium*. 3 vols. Oxford: Oxford University Press [=*ODB*].

Kharlamov, V. 2009. *The Beauty of the Unity and the Harmony of the Whole: The Concept of Theosis in the Theology of Pseudo-Dionysius the Areopagite*. Eugene, OR: Wipf and Stock.

Kourkoulas, K. 1960. *Τά ἱερατικὰ ἄμφια καὶ ὁ συμβολισμὸς αὐτῶν ἐν τῇ Ὀρθοδόξῳ Ἑλληνικῇ Ἐκκλησίᾳ*. Athens.

Koutloumousianos, B. (ed.). 1838. *Ὡρολόγιον τὸ μέγα περιέχον ἅπασαν τὴν ἀνήκουσαν αὐτῷ ἀκολουθίαν, κατὰ τὴν τάξιν τῆς ἀνατολικῆς τοῦ Χριστοῦ ἐκκλησίας, καὶ ἐξαιρέτως τῶν ὑποκειμένων αὐτῇ εὐαγῶν μοναστηρίων*. Venice: Ek tis Hellenikis Typographeias Fragkiskou Andreola.

Lampe, G. W. H. 1961. *A Patristic Greek Lexicon*. Oxford: Oxford University Press.

Lauxtermann, M. D. 1999. *The Spring of Rhythm: An Essay on the Political Verse and Other Byzantine Metres*. Vienna: Verlag der österreichischen Akademie der Wissenschaften.

Lauxtermann, M. 2019. *Byzantine Poetry from Pisides to Geometres, Texts and Contexts. Volume Two*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.

Liddell, H. G., Scott, R. and Jones, H. S. (eds.). 1996. *A Greek-English Lexicon* [9th edition, 1940; with a revised supplement edited by P. G. W. Glare] Oxford: Clarendon Press [=LSJ].

Magdalino, P. 2006. *L'Orthodoxie des astrologues. La science entre le dogme et la divination à Byzance (VII^e- XIV^e)*. Paris: Lethielleux.

Magdalino, P. 2017. 'Astrology', in A. Kaldellis and N. Siniossoglou (eds.), *The Cambridge Intellectual History of Byzantium*. Cambridge: Cambridge University Press, 198–217.

Mamoni, K. 1986. 'Μανουὴλ Κορίνθιος κατὰ Λατίνων καὶ κατὰ Πλήθωνος', in *Πρακτικὰ β΄ τοπικοῦ συνεδρίου κορινθιακῶν ἐρευνῶν. Παράρτημα Πελοποννησιακῶν ἀρ.* 12. *Athens: Etaireia Peloponnisiakon Spoudon,* 209–19.

Mavroudi, M. 2006. 'Occult Science and Society in Byzantium: Considerations for Future Research', in P. Magdalino and M. Mavroudi (eds.), *The Occult Sciences in Byzantium*. Geneva: La Pomme d'or, 39–96.

Metzler, K. and Savvidis, K. (eds.). 1998. *Athanasius: Werke, Band I. Die dogmatischen Schriften, Erster Teil, 2. Lieferung*. Berlin and New York: De Gruyter.

Migne, J. P. (ed.). 1857–66. *Patrologiae cursus completus*. 161 vols. Paris: J. P. Migne [=*PG*].

Moniou, D. (ed.). 2005–6. 'Μανουὴλ Κορινθίου ἀνέκδοτος παρακλητικὸς κανὼν εἰς τὴν ὑπεραγίαν Θεοτόκον καὶ εἰς τὸν ἅγιον Νικόλαον', *Επιστημονική Επετηρίς Φιλοσοφικής Σχολής Πανεπιστημίου Αθηνών* 37: 103–11.

Nicolaidis, E. 2011. *Science and Eastern Orthodoxy: From the Greek Fathers to the Age of Gglobalization*. Baltimore, MD: Johns Hopkins University Press.

Pallas, D. I. 1971. 'Ἡ Θεοτόκος Ρόδον τὸ Ἀμάραντον. Εἰκονογραφικὴ ανάλυση, καταγωγὴ τοῦ τύπου', *Ἀρχαιολογικὸν Δελτίον* 26 (Μελέται): 225–38.

Papadakis, K. 2000. *Ματθαίος Καμαριώτης το θεολογικό του έργο μετά εκδόσεως ανέκδοτων έργων του*. Aristotle University of Thessaloniki: PhD thesis.

Papadopoulos-Kerameus, A. 1902. 'Μανουήλ ὁ Κορίνθιος καὶ ἓν ὑμνογραφικὸν αὐτοῦ πονημάτιον', *Ἐπετηρὶς Φιλολογικοῦ Συλλόγου Παρνασσὸς* 6: 71–102.

Parakletike. 1885. *Παρακλητική, ἤτοι Ὀκτώηχος ἡ Μεγάλη*. Rome.

Paranikas, M. 1875–6. 'Περὶ τῆς χριστιανικῆς ποιήσεως τῶν Ἑλλήνων', *Ὁ ἐν Κωνσταντινούπολει Ἑλληνικὸς Φιλολογικὸς Σύλλογος* 1: 10–22.

Paschos, E. and Simelidis, C. 2017. *Introduction to Astronomy by Theodore Metochites (Stoicheiosis Astronomike 1.5–30)*. Singapore and Hackensack, NJ: World Scientific.

Patrinelis, C. 1962. 'Οἱ μεγάλοι ρήτορες Μανουὴλ Κορίνθιος, Ἀντώνιος, Μανουὴλ Γαλησιώτης καὶ ὁ χρόνος τῆς ἀκμῆς των', *Δελτίον τῆς Ἱστορικῆς καὶ Ἐθνολογικῆς Ἑταιρείας* 16: 17–38.

Peltomaa, L. M. 2001. *The Image of the Virgin Mary in the Akathistos Hymn*. Leiden and Boston: Brill.

Pingree, D. 1971. 'The Astrological School of John Abramios', *Dumbarton Oaks Papers* 25: 191–215.

Psimmenos, N. (ed.). 2007. 'Ὁ Λόγος τοῦ Μανουὴλ Κορινθίου κατὰ Γεμιστοῦ καὶ Βησσαρίωνος', in *Μελετήματα Νεοελληνικῆς Φιλοσοφίας*, vol. 2. Ioannina: Dotion, 133–50.

Simelidis, Ch. (ed.). 2010. *Selected Poems of Gregory of Nazianzus: I.2.17; II. 1. 10, 19, 32: A Critical Edition with Introduction and Commentary*, *Hypomnemata* 177. Göttingen: Vandenhoeck und Ruprecht.

Sofianos, D. (ed.). 1983. 'Ὁ Νεομάρτυρας Μιχαὴλ Μαυροειδὴς ὁ Ἀνδριανουπολίτης, Ἀνέκδοτα Ἁγιολογικὰ Κείμενα τοῦ Μεγάλου Ρήτορος Μανουὴλ Κορινθίου κ.ἄ.', *Θεολογία* 54: 779–816.

Solon, P. 1970. 'The Six Wings of Immanuel Bonfils and Michael Chrysokokkes', *Centaurus* 15: 1–20.

Stefec, R. 2013. 'Zwischen Urkundenpaleographie und Handschriftenforschung: Kopisten am Patriarchat von Konstantinople', *Rivista di studi bizantini e neoellenici* 50: 303–26.

Stephanides, B. 1908. 'Στίχοι Μανουὴλ τοῦ μεγάλου ῥήτορος', *Byzantinische Zeitschrift* 17: 470.

Sumner, D. O. 2014. *Karl Barth and the Incarnation: Christology and the Humility of God*. London and New York: T&T Clark.

Talbot, A. M. 1994. 'Epigrams of Manuel Philes on the Theotokos tes Peges and Its Art', *Dumbarton Oaks Papers* 48: 135–65.

Theodoridis, Ch. (ed.). 1998. *Photii Patriarchae Lexicon*, vol. 2 (E-M). Berlin and New York: De Gruyter.

Tihon, A. 1996. 'L'astronomie byzantine à l'aube de la Renaissance (de 1352 à la fin du XVe siècle)', *Byzantion* 64: 244–80.

Tihon, A. 2017a. 'Astronomie juive à Byzance', *Byzantion* 87: 323–47.

Tihon, A. 2017b. 'Astronomy', in A. Kaldellis and N. Siniossoglou (eds.), *The Cambridge Intellectual History of Byzantium*. Cambridge: Cambridge University Press, 183–97.

Treu, M. 1896. 'Manuel Holobolos', *Byzantinische Zeitschrift* 5: 538–59.

Trypanis, C. A. (ed.). 1968. *Fourteen Early Byzantine Cantica*. Vienna: Böhlau.

Vassis, I. 2005. *Initia Carminorum Byzantinorum*. Berlin and New York: De Gruyter.

Woodfin, T. 2012. *The Embodied Icon: Liturgical Vestments and Sacramental Power in Byzantium*. Oxford: Oxford University Press.

7 Greek Renaissance commentaries on the *Organon*

The codex Wellcomensis MS.MSL.1*

Nikos Agiotis

1 Introduction

In his study *Aristotle and the Renaissance*, Charles Schmitt focuses on the international character and the geographical, chronological and intellectual variations in Aristotelianism during the Renaissance, which he defines as a 'time span in European history from the late fourteenth century until the mid-seventeenth'.[1] The American scholar recognises the various restrictions of this definition,[2] but introduces two arguments of pivotal importance for his analysis: (a) that during these 'three hundred years of the Aristotelian tradition … publications were more numerous than at any time before or since';[3] and (b) that the

> main binding force was the Latin language in which the greatest bulk of literature on the subject was written…philosophers or scientists at Oxford, Coimbra, or Cracow could read one another and, in turn, be read in Rome as well as in Paris or Uppsala.[4]

Schmitt's arguments about Aristotelian publications, Latin, the philosophical discourse and the numerous educational institutions during the Renaissance[5] could apply both to those Greek scholars who chose to study and/or pursue a career abroad – especially in Italy – after the Ottoman

* I am grateful to Valerie Nunn and George A. Alexakis for proofreading the English text. I also wish to express my gratitude to the anonymous referee and Petros Bouras-Vallianatos for their valuable corrections/remarks.

1 Schmitt (1983: 3).

2 For an overview of the criticism of Schmitt's arguments, see Kuhn (2018).

3 Schmitt (1983: 3).

4 Schmitt (1983: 8).

5 On Aristotelianism in the Renaissance – in both Latin and vernacular languages – see Lohr (1988); Escobar (2000); Ebbesen (2001); Fyrigos (2001); Bianchi (2009); Lines (2013); project *VARI* (*Vernacular Aristotelianism in Renaissance Italy c.1400–c.1650*), available at https://vari.warwick.ac.uk/ (accessed, 8 November 2018). On the study of logic, in particular, see Ashworth (2008).

conquest or to those already living in areas under Venetian rule.[6] For instance, Athanasios Rhetor[7] (ca. 1571–1663) published his *Ἀριστοτέλης ἑαυτὸν περὶ τῆς ἀθανασίας τῆς ψυχῆς διατρανῶν* (Paris 1641) in both Greek and Latin;[8] John Kottounios (ca. 1577–1658) published all his Aristotelian works in Latin,[9] taking over from Cesare Cremonini (1550–1631) as teacher of philosophy at the University of Padua in 1632.[10] As regards the educational institutions where Greek students could start, continue or complete their studies, there were six such schools functioning in Italy from the beginning of the sixteenth century: the short-lived 'Gymnasio mediceo ad Caballinum montem'[11] (1514–21) and the 'Pontificio Collegio Greco di Sant'Atanasio'[12] (1576–1797) in Rome; the colleges of Ioasaph Palaiokapas[13] (1633–1772) and John Kottounios in Padua[14] (1653–1797); the Greek School[15] (1593–1701, 1791–1926) and the college of Thomas Flagginis[16] (1665–1797) in Venice. To these institutions we should add the University of Padua, a popular educational destination for Greeks at that time.[17]

The operation of the four Greek colleges should be examined in the context of the Counter-Reformation movement and the subsequent political position of Venice. The control of the papal authorities over the career prospects and religious beliefs of the Orthodox students at the College of Saint Athanasios began gradually increasing after 1622 and thus many of them were forced to abandon the college.[18] The graduates of this school would very often continue their studies at the Collegio Romano and eventually pursue careers as prelates.[19] However, the colleges of Palaiokapas, Kottounios and Flagginis, which were founded in the aftermath of the rivalry between Venice and the Vatican that began with the 'Venetian Interdict' of 1606,[20] offered a more promising alternative: an

6 In the period under examination, these regions were Crete (1211–1669), Corfu (1207–14; 1386–1797), Zakynthos (1484–1797), Cephalonia and Ithaca (1500–1797).
7 O'Meara (1977: 486–7).
8 Legrand (1894: 416–19).
9 On the Aristotelian work of Kottounios, see Fyrigos (2001); for a comprehensive bibliography on the scholar, see Dolaptsoglou (2014: 361, n. 1).
10 On the work of Cremonini, see Kuhn (1996) and Riondato and Poppi (2000).
11 Tsirpanlis (1980: 26–7).
12 Tsirpanlis (1980).
13 Or college of 'San Giovanni' or 'Collegio Veneto de' Greci'; see Stergellis (1970: 49–52); Karathanasis (2010: 469–523); Bovo (2015: 82–104).
14 Stergellis (1970: 52–3); Dolaptsoglou (2014); Bovo (2015: 104–27).
15 Mertzios (1939: 167–85). This school merged with the Flagginis college in 1700.
16 Karathanasis (1975).
17 Stergellis (1970: 11–47); Bobou-Stamati (1995b: 15–21).
18 Krajcar (1966: 21–3); Tsirpanlis (1980: 112–14, 198–209).
19 Tsirpanlis (1980: 79–82). On the Collegio Romano, see Villoslada (1954).
20 Bouwsma (1968: 339–416).

academic career without religious commitments at the University of Padua.[21] The political motives behind the founding of the colleges of Palaiokapas and Flagginis are indicative of the competition between the Vatican and the Republic in relation to educational establishments. The endowment of Ioasaph Palaiokapas (d. 1583) was administered by Venetian banks and initially financed the studies of Greek citizens of the Serenissima at the College of St. Athanasios in Rome. However, the conflict between the Republic and the Pope resulted, in 1622, in this fund being redirected to finance the foundation of a new boarding school in Padua, the Palaiokapas College, which received its first students in 1632.[22] Moreover, in 1625 Thomas Flagginis had sent a memorandum to the Doge outlining the necessity for a Greek college whose graduates could serve the interests of Venice; the response of the Venetian authorities was that there was no need for such an institution, since the educational needs of the citizens of the Republic were served by the University of Padua. Nonetheless, Flagginis' political arguments were ultimately well received and led, as a result of his endeavours and those of the Greek Scuola of Venice, to the foundation of the new college in 1665.[23]

Concerning Aristotelian studies, in particular, it should be noted that the internal regulations – especially those regarding the curriculum – of the three later Greek colleges (Palaiokapas, Kottounios and Flagginis) were based on the corresponding regulations of the Collegio Greco in Rome.[24] More specifically, the courses in logic and philosophy at the Flagginis school were to be organised according to the curricula of the Saint Athanasios and Kottounios colleges.[25] The regulations of the Kottounios College state in general terms that the admitted students would have the chance to study 'dialectic and philosophy';[26] the regulations of the Collegio Greco (1583/4) go into more detail:

> They <the students> will be introduced to Dialectic and Philosophy in the same order as is applied in the regular studies to the Greek authors, that is Aristotle, Porphyry, Themistius, Philoponus and others like them, and if it seems better it will also be possible to read <them> in Latin according to the order which is used in the schools of Italy.[27]

21 Tsirpanlis (1980: 198–209).

22 Tsirpanlis (1980: 207–8); Stergellis (1970: 51–2); Dolaptsoglou (2014: 366). In 1772 the Palaiokapas College merged with the College of Kottounios.

23 Karathanasis (1975: 46–51).

24 On the internal regulations of the colleges of Sant'Atanasio, Palaiokapas, Kottounios and Flagginis, see Legrand (1895: 494–513); Tsirpanlis (1974: 330–1); Mertzios (2007: 492); Mertzios (1939: 95–103) respectively.

25 Mertzios (1939: 95, 97).

26 Mertzios (2007: 492).

27 Legrand (1895: 502) [in Italian]. I am grateful to Dr. Stefano Valente for his help with the English translation of the text.

Moreover, at the College of Saint Athanasios both tutors and students were encouraged to conduct their lessons in Latin,[28] since its curriculum was meant to support the work of the professors at the Collegio Romano.[29]

Turning our attention to the East, we find that the study of the Aristotelian corpus does not altogether correspond to the scheme proposed by Schmitt due to the peculiar social and academic situation of the Greeks within the Ottoman Empire.[30] More specifically, manuscripts were the most common book format for any kind of literature in the Ottoman state, unless printed books could be procured from abroad.[31] We should also take into account that, after the political end of Byzantium, the education of Christians fell under the jurisdiction of the Church, for which Greek continued to be the language of learning and administration. The information that we possess about Greek educational institutions in the Ottoman Empire up to the mid-seventeenth century is scanty and fragmentary. It seems that the resources assigned for educational purposes must have been in general very restricted; it was only in 1593 that Patriarch Jeremias II officially asked the bishops to proceed with the foundation of what we might call 'elementary' schools[32] in their sees or the teaching of the 'divine and sacred Scriptures' (θεῖα καὶ ἱερὰ γράμματα), that is to say the *Octoechos*, *Psalterion*, *Horologion* and *Euchologion*.[33] However, if we take into account some earlier information from Martinus Crusius (1584), then we may assume that this plan had, in fact, been implemented before Jeremias made his official request to the bishops.[34] In Constantinople, on the other hand, the courses at the Patriarchal School depended on the personal preferences of the teaching staff,[35] although there would be occasional opportunities, as we shall see, to study Aristotelian philosophy. As soon as Theophilos Korydalleus (1574–1646), a graduate of the Collegio Greco and sworn enemy of the Jesuits, was appointed Head of the Patriarchal School in 1622, he implemented the curriculum of his alma mater, the University of

28 Tsirpanlis (1980: 51).

29 Tsirpanlis (1980: 79–80).

30 On the study of the Aristotelian corpus by Greek scholars after 1453, see indicatively Papadopoulos (1988); Psimmenos (1988); Karanasios (1993); Benakis (2001); Petsios (2003: 37–229); section entitled *Personenregister* on the website of the project *CAGB* (*Commentaria in Aristotelem Graeca et Byzantina*), at https://cagb-db.bbaw.de (accessed, 8 November 2018).

31 On the preference for manuscripts in the Ottoman Empire, see Hanioğlu (2010: 38–40); Moennig (2016: 32–4).

32 Skarveli-Nikolopoulou (1994: 188).

33 Sathas (1870: 91).

34 Crusius (1584: 205) [in Latin]: 'they do not have any institutions of higher education or any public teachers, aside from elementary schools in which boys are taught to read the *Book of Hours*, the *Octoechos*, the *Psalms* and other books, of which there is an abundance'.

35 Skarveli-Nikolopoulou (1994: 187–8).

Padua; namely, he introduced the neo-Aristotelianism of his teacher Cesare Cremonini.[36] Theophilos' philosophical teaching was so influential that it became the benchmark for the study of the Paduan Aristotle[37] in the Greek East for approximately the next two centuries.[38]

In his monograph on the history of the Patriarchal School, Tasos Gritsopoulos reports that there were eleven ex-scholars of the School before Theophilos who had served as directors or had some sort of teaching affiliation with this institution.[39] They were as follows:

1. Matthew Kamariotes (d. 1489/90): a student of George/Gennadios Scholarios, who produced a significant body of rhetorical work and was the first Head of the Patriarchal School.[40]
2. Manuel Korinthios (d. 1530/1): the successor to Kamariotes and first Great Rhetor (Μέγας ῥήτωρ) of the patriarchate from 1491; he mainly produced theological treatises.[41]

36 On Korydalleus, see Tsourkas (1967); Tsirpanlis (1980: 390–4). On his Aristotelianism, in particular, see Agiotis (2019). For a comprehensive bibliography on the scholar, see the entry *Theophilos Korydalleus* in *CAGB*, at https://cagb-db.bbaw.de (accessed, 8 November 2018).

37 On the study of the Aristotelian corpus at the University of Padua see Nardi (1958); Marangon (1977); Poppi (1991); Kuhn (1996); Baldini (1998).

38 Korydalleus' commentaries would become the standard works for the study of philosophy up to the end of the eighteenth century. His students or later admirers of Korydalleus' philosophical oeuvre were eminent scholars who taught at the Patriarchal School or served as its Heads during the second half of the seventeenth century (for instance, John Kariophylles, Germanos Lokros, Alexander Mavrokordatos, Sevastos Kyminetes); see Gritsopoulos (1966: 196–203, 225–60, 291); Apostolopoulos (1976); Karanasios (2001: 7–15, 109–15, 130–43); Tsiotras (2017: 80–1). Furthermore, from the exuberant manuscript tradition of Korydalleus' philosophical works we may infer that this author was by far the most popular Aristotelian commentator of the seventeenth and eighteenth centuries. On the manuscript tradition of Korydalleus' commentaries on the Aristotelian logic and *De anima*, as well as on Korydalleus' translations of Cremonini's respective works see Tsiotras (2000: 223–8, 236–8, 243–4) [17th c.: 52 mss; 18th c.: 89 mss]; Tsiotras (2017: 58–79) [17th c.: 41 mss; 18th c.: 100 mss.] respectively. The commentary on Aristotle's *Physics* is transmitted by at least 162 manuscripts; forty-one of them are dated to the seventeenth century (I am preparing an article on this subject). On the rest of Korydalleus' philosophical treatises, as well as the work of other authors of the same period, see Wartelle (1963: 197–8); Argyropoulos and Caras (1980: 76). The Korydallic trend became more pronounced throughout the eighteenth century after the condemnation of Methodios Anthrakites' work by the Church in 1723 and the subsequent recognition of Korydallism (1725) as the only accepted kind of 'peripatetic philosophy' or philosophy which could be taught at the Patriarchal School at all; see Pelagidis (1982: 137); Bobou-Stamati (1995a).

39 Gritsopoulos (1966: 74–126, 148–53).

40 On his work, see Chatzimichael (2002).

41 Patrinelis (1962: 17–25); for an updated bibliography on the scholar, see Anagnostou (2012–13: 365, n. 1). See also Tomadaki (Chapter Six) in this volume.

3. Anthony Karmalikes (d. before 1543/44): successor to Korinthios as Head of the School and Great Rhetor; he shared his predecessors' academic interests.[42]
4. Manuel Galesiotes (d. 1549): Great Rhetor and Head of the School from 1544; he taught Greek and rhetoric.[43]
5. Theophanes Eleavourkos (d. 1555/6): Great Rhetor, probably between 1545 and 1548. Around 1548 Theophanes was forced to stop teaching after taking part in the coup against the Patriarch Dionysios II; he continued, however, to bear the title of Great Rhetor until the end of his life. As we may infer from his library, Theophanes employed material that is derived from late antique commentaries as well as from translations of Thomistic works by Scholarios.[44]
6. Michael Ermodoros Lestarchos (d. before 1577): possibly a student of the 'Gymnasio mediceo'; in 1547 he was teaching Greek at Ferrara, where he had studied medicine.[45] While at Ferrara, Lestarchos was invited by Patriarch Dionysios II to teach at the Patriarchal School in Constantinople, but it is not known whether he accepted this position or not.[46] Patriarch Ioasaph II, the successor to Dionysios II from 1556, invited Lestarchos to become his doctor; thus, it would perhaps be reasonable to assume that Lestarchos did teach at the Patriarchal School.[47] Sometime between 1539 and 1542 Theophanes accused Ermodoros of – among many other things – having only a weak knowledge of the Aristotelian treatises on logic.[48]
7. John Zygomalas (ca. 1498–d. before 1585): perhaps a graduate of the University of Padua. In 1556, John was invited by Patriarch Ioasaph II to teach at the Patriarchal School; initially he was a rhetor of the patriarchate and in around 1576 he was appointed Great Interpreter of the Great Church (Μέγας ἑρμηνεὺς τῆς μεγάλης ἐκκλησίας).[49] Martinus Crusius reports a Greek translation of a printed *Synopsis Dialecticae, Rhetoricae, et Ethicae* produced by John.[50] However, the content of a recently discovered work attributed to John's son, Theodosios, seems to correspond to the three sections of the aforementioned edition.[51]

42 Patrinelis (1962: 25–34).
43 Patrinelis (1962: 34–8).
44 On the life and Aristotelian work of Theophanes, see Agiotis (2020).
45 Bouboulidis (1959: 286–9); Rhoby (2009: 127–30).
46 Bouboulidis (1959: 290); cf. Gritsopoulos (1966: 95–6, 102).
47 Gritsopoulos (1966: 96, 102); cf. Bouboulidis (1959: 290).
48 Agiotis (2020).
49 Legrand (1889: 183); cf. Perentidis (1994: 20); the latter author suggests that, given the duties to which John Zygomalas was appointed, one might infer that he too must have been a Μέγας ῥήτωρ. On the life and work of John, see Legrand (1889: 71–113); Perentidis (1994: 17–25).
50 See Crusius (1584: 205); Perentidis (1994: 23); Steiris (2009: 173–4).
51 See the information on Theodosios Zygomalas and Section 3 below.

8. Theodosios Zygomalas (1544–1607): he was 'homeschooled' by his father, John, whom he began assisting at the Patriarchal School from 1562.[52] He authored a collection of scholia in vernacular Greek on the *Categories* and the *Prior Analytics*.[53] Theodosios asked Martinus Crusius to send him an edition of *De anima*.[54]
9. Symeon (or 'Νεώδορος') Kavasilas or Karnanios (ca. 1546–d. after 1605):[55] a lesser-known scholar who ran a *phrontesterion*, or school, in Constantinople (1577–88) after attending courses at the University of Padua (1575/6). Some researchers suppose that this institution should be identified with the Patriarchal School.[56] Symeon's Aristotelian interests are related to the *Meteorologica*.[57]
10. Leonardos Mindonios (d. after 1599): a teacher of philosophy, who worked closely with the Patriarch Jeremias II; Leonardos had studied in Italy and perhaps taught the commentaries of Ammonios on the *Organon* at the Patriarchal School.[58]
11. Frangkiskos Kokkos (1573/4–1608): a graduate of the Greek College of Saint Athanasios in Rome and Great Interpreter of the Great Church of Christ (Μέγας διερμηνεὺς τῆς μεγάλης τοῦ Χριστοῦ ἐκκλησίας) between the years 1603–8;[59] unlike Korydalleus, his successor at the Patriarchal School (twelve years later!), Kokkos was a friend of the Jesuits. He wished to translate a Latin *Introduction to Logic* into Greek.[60]

An examination of the historical and political context of the education provided at the Patriarchal School would go beyond the scope of this paper. However, the academic characteristics of the aforementioned group of scholars allow certain preliminary conclusions to be drawn with regard to the Aristotelian studies at this school:

- The Head of the Patriarchal School would occasionally teach the works of Aristotle among other subjects, such as grammar and rhetoric. The fact

52 On the life and work of Theodosios, see Legrand (1889: 114–47); Perentidis (1994: 25–59).
53 Katsaros (2009: 216–17, 220–1); the codex Sofiensis Centri 'Ivan Dujčev' gr. 353 (second quarter of the seventeenth century) also transmits, beside the scholia on the *Organon* (ff. 39r–44v), a section on ethical and rhetorical questions (ff. 45r–51v); see Section 2.2, below.
54 Crusius (1584: 468).
55 Gamillscheg (2009: 25–7).
56 Gritsopoulos (1966: 119–20).
57 Gritsopoulos (1966: 121).
58 Crusius (1584: 205); Steiris (2009: 175–80).
59 Legrand (1895: 151, n. 4); Tsirpanlis (1980: 303–4).
60 See Section 3, below.

that the directors of the School could hold the official title 'Great Rhetor' for long periods of time is a rather clear indication of the educational priorities of this institution. However, the philosophical syllabus could also be assigned to teachers who were acquainted with the officials of the patriarchate or members of the teaching staff.

- Despite there having been hardly any research into the exact content of the philosophical syllabus before Korydalleus, it seems that parts of the Aristotelian corpus, in particular the *Organon*,[61] began to be taught around the middle of the sixteenth century.
- Thereafter, the interest in Aristotle was displayed mainly by scholars who had attended courses at or graduated from the University of Padua, or the College of Saint Athanasios, or both. There is one exception: Theophanes Eleavourkos – it seems that he was the initiator of the Aristotelian trend at the Patriarchal School, despite having never travelled, to the best of my knowledge, farther west than Corfu nor exhibited any knowledge of Latin.

2 The texts in Wellcomensis MS.MSL.1

The content of the manuscript Wellcomensis MS.MSL.1 is of particular interest with regard to the historical as well as the educational context which I have outlined in the first section. This codex transmits the following texts:[62]

- (ff. 2v–129r) an *Ἑρμηνεία* of *Cat.* alternating with the Aristotelian work;
- (ff. 130r–153v, 174r–177v) a series of *Ἀπορίαι καὶ ζητήματα* on *Cat*;
- (ff. 154r–163v) the beginning of a commentary on Porphyry's *Isagoge*;
- (ff. 166r–173v) exercises for learning Greek;
- (ff. 178r–200v) a compendium of *APr.*

The Greek exercises and the compendium of *APr.* are transmitted anonymously, whereas the other three texts include – as we shall see – some interesting information regarding their author.

61 The six logical works of Aristotle (*Categories*, *De Interpretatione*, *Prior* and *Posterior Analytics*, *Topics*, *Sophistical Refutations*; from now on *Cat.*, *Int.*, *APr.*, *APo.*, *Top.*, *SE* respectively), which were usually preceded in the Greek manuscript tradition by Porphyry's *Introduction.* For the critical edition of the latter work, see Porphyry, *Isagoge et in Aristotelis categorias commentarium*, ed. Busse (1887).

62 I am grateful to Dr. Bouras-Vallianatos for sending photos of the material under examination.

According to the description given by Petros Bouras-Vallianatos,[63] the anonymous scribe of the codex must have brought his task to an end by ca. 1635; since the watermarks in MS.MSL.1 are similar to patterns attested in the years 1618 (ff. 174–185), 1620 (ff. 166–173), 1630 (ff. 2–165) and 1635 (ff. 186–200).[64]

2.1 Commentaries and quaestiones on Cat. *and on Porphyry's* Isagoge

In the introductory note to the Greek commentary on the *Isagoge* we find important information concerning the identity of the text:

63 Bouras-Vallianatos (2015: 279–83). In this description the codex is labelled as 'mathemata-rion' according to the modern usage of the term which was, however, originally coined to signify either exercises in liturgical chant (those who practise it still use the term in this exact sense), or manuscripts transmitting such exercises. Angeliki Skarveli-Nikolopoulou not only accepts the latter interpretation in her dissertation, which is considered as the standard work on the school books of the 'Tourkokratia', but also cites the relevant bibliography [Skarveli-Nikolopoulou (1994: 4, n. 5); see also Alexandrou (2017: 50)]. Nevertheless, she adds the following assumption: 'The term migrated from music, as we believe, to manuscripts meant for educational use, which transmit texts for students of an intermediate level in particular. Even though there are numerous extant mathemataria, the term itself is a rarity. Its infrequency, however, does not preclude its use in parallel with the more widely used terms βίβλος, βιβλίο' [Skarveli-Nikolopoulou (1994: 5), in Greek]. The author's assertion in the first sentence is in my opinion completely unjustified. Before explaining why, I would like to point out that Skarveli-Nikolopoulou conceals the fact that the source on which she bases her identification of the 'mathemataria' with the school texts of κυκλοπαιδεία is the manuscript catalogues of Athanasios Papadopoulos-Kerameus (1856–1912), whom she cites quite often. I have not examined how Papadopoulos-Kerameus came to espouse this idea, but the research of Skarveli-Nikolopoulou shows, ironically enough, exactly the opposite of what she claims to believe. A first point of interest is that Skarveli-Nikolopoulou surveys a total of 998 codices, of which only three are labelled as 'mathemataria' in annotations within the manuscripts themselves; these are the codices n. 733, 961 and 973, which were copied between 1742 and 1789 [Skarveli-Nikolopoulou (1994: 736, 849–51, 854) respectively]. I doubt that a group of three rather late codices suffices to define a genre of hundreds of manuscripts copied during the centuries of Ottoman rule. Moreover, a closer look at the content of these three manuscripts reveals that two of them (n. 733 and 973) transmit not only school texts, but also – as one might expect – hymnographical texts (canons), i.e. material for the liturgical chant. Thus, the 'evidence' of Skarveli-Nikolopoulou must be reduced to a single codex which, however, has been lost since 1922 [Skarveli-Nikolopoulou (1994: 849, n. 4); she cites, of course, the corresponding catalogue of Papadopoulos-Kerameus]. Had we the chance to examine the content of the lost manuscript, we would most likely discover in it material related to liturgical chant. Skarveli-Nikolopoulou was correct in observing the rarity of the term 'mathemataria' in the manuscripts of the κυκλοπαιδεία, but she failed to draw the obvious conclusion, i.e. that this happens because the 'mathemataria' simply do not relate to the content of the κυκλοπαιδεία.

64 Bouras-Vallianatos (2015: 282).

MS.MSL.1, f. 154r[65]	*Translation*
Οἱ τὴν ἀρχὴν εἴς τι τῶν τοῦ Ἀριστοτέλους βιβλίων καταβαλλόμενοι[66] ποιεῖν, ἀλλὰ δὴ καὶ ἑκάστου τῶν ἄλλων τινὰ ὑπομνήματα, ὥσπερ τισὶ προοιμίοις χρῆσθαι αὐτὸν τὸν συγγραφέα[67] τοῦ βιβλίου εἰώθασι· τίς ποτε[68] καὶ ὁποῖος ἂν εἴη διαχαρακτηρίζουσι καὶ τὰ τούτοις ἀκόλουθα· ἧς δὴ ἀρχῆς ἕνεκεν καὶ ἡμεῖς τοῦ τοιούτου ἐγχειρήματος καταβαλλόμενοι τὴν σπουδὴν τοῦ ἑρμηνευτοῦ (φημὶ δὴ τοῦ παρὰ Λατίνοις λεγομένου Τολέτου), πρὸς ἐξήγησιν ἐκ λατίνου πρὸς ἑλληνικὴν διάλεκτον, ὡς ἐνῆν θεοῦ ὁδηγοῦντος, χωρήσωμεν, ἥτις τῶν τοῦ Πορφυρίου ἐμπεριέχει πέντε φωνῶν καὶ ἁπλῶς πᾶσαν τὴν τοῦ Ἀριστοτέλους λογικὴν διάλεκτον.[69] ἀρκτέον τοίνυν ἐντεῦθεν:	Those who begin to write commentaries on any of Aristotle's books – but also on any book of any other author – are in the habit of using – just as some kind of introduction – the author of the book himself; they describe who and what sort of person he once was, and everything that goes along with this. Thus, in beginning a task such as this, let us also proceed while engaging with the work of the interpreter[70] (I mean the one who is called Toleto among the Latins) – to the extent that this is possible with God's guidance – with an exegesis from Latin into Greek, which contains the Five Voices of Porphyry and generally all the treatises of Aristotle's Logic. One must[71] begin, therefore, from there.

'Toleto' (Gr. Τολέτος) is, of course, Francisco de Toledo (1532–96), a Spanish Jesuit and later professor at the Collegio Romano in Rome where he taught the whole of the three-year cycle of the philosophical curriculum – logic (1559–60), natural philosophy (1560–1) and metaphysics

65 The accentuation, punctuation and orthography of the manuscript have been standardised.

66 The manuscript reads καταβαλόμενοι.

67 The anonymous referee correctly remarks that 'the syntax of the Greek text is problematic'. Whereas it is true that the Greek text is here, as well as in other cases idiomatic (see the uses of the particle καταβαλλόμενοι and the word διάλεκτος below), the syntax of χράομαι with accusative is not without precedent. See LSJ, χράω, C.VI.

68 The manuscript reads τίς, πότε.

69 The anonymous referee deems that 'this seems as a varia lectio (διαλεκτικήν *pro* λογικήν) badly copied'. The expression πᾶσα λογικὴ διάλεκτος is indeed somewhat idiomatic. I cannot, of course, exclude the possibility of a badly copied varia lectio, but in this case one should then rather read ἅπασαν (scil. 'all parts/the whole of Aristotle's logic') in the place of πᾶσαν.

70 Thus … interpreter] The anonymous referee suggests the following translation: 'Thus, for the sake of beginning a task such as this, let us, who are committed to the study of the interpreter'.

71 One must] The anonymous referee suggests that ἀρκτέον should be translated as 'Let us begin'. Since there is no ἡμῖν before or after ἀρκτέον, I opted for the translation of the verbal adjective with 'one must'.

(1561–2) – before moving on to theology and becoming a cardinal (1594). Francisco was the author of two very influential works on Aristotelian logic, his *Introductio in dialecticam Aristotelis* (Rome 1561) and the *Commentaria una cum quaestionibus in universam Aristotelis logicam* (Venice 1572).[72] The source of the Greek 'prolegomena' above is a passage from the latter work (from now on *CQ*), which has been augmented by remarks on the translator:

CQ, p. 10v[a].3–14[73]
Qui in aliquem authorem Commentaria ediderunt, quaedam solent, quasi prooemii loco, ante illius enarrationem pertractare. De illius videlicet operis Authore, vita, moribus, doctrina, ac laudibus. De ipsius operis argumento, utilitate, ac necessitate. De scribendi modo, et methodo ordine, et partibus, et similibus aliis. Ex quibus, nos, more aliorum interpretum, breviter, quantum satis est ad nostrum institutum nonnulla referemus.

The rest of the Greek text on the *Isagoge* renders the respective passage in *CQ*:

	CQ	MS. MSL.1
inc.	p. 10v[a].19: Porphyrius Philosophus, natione Phoenix hoc opus edidit, vixit tempore Aureliani, et Diocletiani Imperatorum…	f. 154r: Πορφύριος μὲν οὖν ὁ φιλόσοφος, ὁ τὸ γένος Φοίνιξ, ἐστὶν ὁ τὸ παρὸν ἐκθέμενος σύγγραμμα· ἤκμασε δὲ ἐν τοῖς χρόνοις Διοκλητιανοῦ καὶ Αὐρηλιανοῦ τῶν τυράννων…
des.	p. 13r[b].45: …Quaestio II. Utrum universalia sint res, an sint voces, vel conceptus.	f. 163v: …Δεύτερον ἀπορούμενον: Ἆρα καθόλου εἰσὶ πράγματα ἢ φωναὶ μόναι ἢ ἐπίνοιαι.

Similarly, a comparison of the *Ἑρμηνεία* and the series of *Ἀπορίαι καὶ ζητήματα* on *Cat.* with *CQ* has shown that the former two texts are also translated parts of Toledo's work. In the next table the concordances between the Greek text and its Latin source are presented.

72 On Toledo's life and work, see Lohr (1988: 459–60); on the study of his logical treatises at the Collegio Romano, in particular, see Wallace (1984: 6–14).

73 I have used the text of de Toledo (1572) for all the quotations that follow.

MS.MSL.1	*CQ*
(ff. 2r–56r, 58r–129r) Ἑρμηνεία εἰς τὰς Ἀριστοτέλους Κατηγορίας	(pp. 43r–58v[a].21, 64r[b].4–104r[b].23) In librum Cathegoriarum Aristotelis quae Praedicamenta dicuntur. Commentaria, una cum quaestionibus
(ff. 130r–135r) Περὶ τοῦ γένους διαιρέσεως, ἀπορίαι τέτταραις	(pp. 22v[a].14–24r[a].5) De definitione generis quaestiones quatuor
(ff. 135r–143r) Ζητήματα μόνα περὶ τοῦ εἴδους	(pp. 29r[a].23–31r[b].40) Quaestio unica an definitiones speciei, et reliqua de specie a Porphyrio recte tradita sint?
(ff. 143v–149r) Ζητήματα καὶ ἀπορίαι γνώσεως ἄξια ἐν τῷ τῆς διαφορᾶς κεφαλαίῳ, καὶ μάλιστα περὶ τὸν αὐτοῦ ὁρισμὸν μὴ εἶναι ὀρθῶς ἀποδεδομένον	(pp. 34r[a].40–35v[a].46) Questiones, seu dubia quaedam scitu digniora in caput de differentia, et praesertim circa eius definitionem, recte ne sit tradita?
(ff. 149v–150v) Ἀπορίαι τινὲς γνώσεως ἄξιαι ἐν τῷ τοῦ ἰδίου κεφαλαίῳ	(p. 36r[a].37–[b].45) Dubia quaedam scitu digniora in caput de proprio
(ff. 150v–153v, 174r) Ἀπορίαι τινὲς καὶ ζητήματα ἐν τῷ τοῦ συμβεβηκότος κεφαλαίῳ καὶ τῶν τούτου ὁρισμῶν	(pp. 36v[b].17–37v[b].32 hominem; immo) Dubia quaedam seu quaestiones scitu digniores in caput de accidente et eius definitione
(ff. 175r–177v) Περὶ τῶν τῆς οὐσίας ἰδιωμάτων ἀπορίαι τινὲς καὶ ζητήματα	(pp. 63v[a].2–64r[b].3) De quibusdam aliis circa posteriorem partem capitis, scilicet de proprietatibus et communitatibus substantiae

Just as in the case of the introductory note to the *Isagoge*, the anonymous translator attempted to provide an interpretation of *CQ*, rather than merely producing a 'literal translation' of the original text. He paraphrases the text (compare 57v[b], lemma 11 – 58v[a], lemma 13 and MS.MSL.1, ff. 50r–56r), expands existing lemmata (see e.g. lemmata in MS.MSL.1, ff. 40v–41r, 42v and lemmata 5 and 6 in *CQ*, p. 56v) and adds examples, like the one that follows (in bold), to give the reader a better understanding of the original text:

CQ	MS.MSL.1
(p. 99r[a].36–40) Contraria sunt qualitates, quae cum adinvicem non dependant, sub eodem sunt praedicamento et ab eodem subiecto mutuo se expellunt, ab eodem inquam numero	(f. 117r) Τὰ ἐναντία λέγων εἶναι ποιότητας, αἳ ἀλλήλων μὴ ἐξηρτημέναι ὑπὸ τὴν αὐτὴν κατηγορίαν καὶ ἀπό τοῦ αὐτοῦ ὑποκειμένου ἀμοιβαίως ἄλληλα ἐξωθοῦσι· φημὶ δὲ ἀπὸ τοῦ αὐτοῦ ὑποκειμένου τῷ ἀριθμῷ, **ἐπεὶ δυνατὸν τὸν Σωκράτην ἐν μὲν τὴν δεξιὰν μέλανα εἶναι, κατὰ δὲ τὴν λαιὰν χεῖρα ξανθόν**

An interesting peculiarity of the Greek translation is, furthermore, the fact that the Greek sources of *CQ* are always cited by name, but the names of Latin (or Arab) Aristotelian commentators are often concealed or mentioned in a rather negative or belittling manner:

CQ	MS.MSL.1
(p. 34r^{b}.41–43) Circa hoc multiplex est dicendi modus. Fuit prima sententia Burlei[74] in praefenti loco	(f. 144v) Πρὸς τοῦτο, κατὰ πολλοὺς τρόπους λεκτέον: καὶ πρώτη μὲν οὖν δόξα ἐν τῷ παρόντι τόπῳ τινὸς τῶν λατίνων ἐστὶ
(p. 34v^{b}.11–2) Quarta opinio fuit Albert.[75] …Avicen.[76] et Alphar.[77]…	(f. 145v) Τετάρτη γνώμη πολλοῖς ἦν…
(p. 34v^{b}.34–5) Unde est quinta sententia ipsius Caietani[78]…	(f. 146r) Ὅθεν πέμπτη γίνεται δόξα τῶν ποιοῦντων τῆν σύγχυσιν…
(p. 37v^{b}.17–20) Ad ista respondet Albertus …Caietanus respondet…	(f. 174r) Τοῦτο δὲ ἀποκρίνεται ὁ Ἀλβέρτος…ἕτερος δὲ ἀποκρίνεται …
(p. 100r^{a}.2–4) Albertus…ita existimat et ita mihi videtur…Simplicius et Porphyrius credunt…et sententia quoque ista probabilis est satis	(f. 117v) δοκεῖ μᾶλλον ἀληθῆ εἶναι τὴν τῶν ἡμετέρων γνώμην, τοῦ τε Σιμπλικίου, Πορφυρίου καὶ ἑτέρων…ὁ δὲ τῶν λατίνων λόγος οὐδὲν ἔχει τὸ ἰσχυρόν

Finally, the anonymous translator refers to Boethius mostly as Βοηθός (ff. 18r, 20r, 22v, 32v etc.), but sometimes also calls him Βαίκιος (ff. 140r, 141r).

Authoritative works are usually popular and Toledo's treatise quickly became a bestseller. Wilhelm Risse registers forty-five publications of *CQ* printed between 1572 and 1617 – i.e. one printing per year on average.[79]

74 Walter Burley (ca. 1275–after 1344); on his life and work, see Vittorini (2013).

75 Albertus Magnus (ca. 1200–80); on his Aristotelian work, see Lohr (1995: 160–78); Lohr (2013: 25–32).

76 Avicenna; the Latin version of the name of the Arab philosopher Abū ʿAlī al- Ḥusayn ibn ʿAbd Allāh ibn Sīnā (ca. 980–1037).

77 Alpharabius; the Latin version of the name of the Arab philosopher Abū Naṣr Muḥammad al-Fārābī (ca. 872–950).

78 Thomas Cajetan (1468–1534); on his Aristotelian work, see Lohr (1988: 71–3).

79 The majority of these reprints (fourteen) were published in Venice. See the respective entries in the index in Risse (1998: 469).

The Jesuits began to supplement *CQ* with their own additions; one such example is the text published by Ludovico Carbone under the title *Additamenta ad commentaria D. Francisci Toleti in Logicam Aristotelis. Praeludia in libros Priores Analyticos, Tractatio de Syllogismo; de Instrumentis sciendi; et de Praecognitionibus, atque Praecognitis.*[80] According to the final version of the *Ratio* of 1599, moreover, the works of Toledo on Aristotelian logic along with the *Institutiones dialecticae* (Lisbon 1564) of Pedro da Fonseca were intended to constitute the philosophical curriculum during the first year of studies in Jesuit schools.[81] *CQ* contained the following:[82]

- (pp. 1r–10r) a short introduction followed by five 'Quaestiones';
- (pp. 10v–42v) 'In librum Porphyrii De quinque universalibus' with Boethius' translation;[83]
- (pp. 43r–106v) 'In librum Cathegoriarum Aristotelis quae Praedicamenta dicuntur' with Boethius' translation;[84]
- (pp. 107r–112v) Ps.-Gilbertus Porretanus' *Sex principiorum liber* (written before the end of the twelfth century);[85]
- (pp. 113r–155v) 'Peri Hermenias Aristotelis … Expositio' with the translation by Boethius;[86]
- (pp. 157r–264r) 'Commentaria una cum quaestionibus in libros Posteriorum analyticorum Aristotelis' with a translation attributed to Boethius; the latter text is, however, a variation of the translation by James of Venice (first half of twelfth century).[87]

Charles Lohr divides the numerous printings of *CQ* into three editions.[88] It is beyond the remit of this chapter to account for this

80 The *Additamenta* had already been printed twice as an appendix to *CQ* (Venice 1597 and 1607). The former treatise was based on the notes of Paulus Vallius (1561–622); see Wallace (1984: 12–23); Moss and Wallace (2003) 45–6.

81 *Ratio atque institutio studiorum Societatis Iesu*, ed. Lukács (1986) 398. See also Section 3, below.

82 Cf. Wallace (1984: 11–12).

83 Boethius, *Porphyrii Isagoge*, ed. Minio-Paluello and Dod (1966) 5–31.

84 Boethius, *Translatio Aristotelis Categoriae*, ed. Minio-Paluello (1961) 5–41.

85 Anonymus, *Fragmentum vulgo vocatum 'Liber sex principiorum'*, ed. Minio-Paluello and Dod (1966) 36–59. On the manuscript tradition and the reception of this work, see Minio-Paluello (1965); Lewry (1987); Lohr (1988: 141). The text was revised by Hermolao Barbaro (Venice 1496) and was thereafter published several times under the name of Gilbert; on the last occurrence of Barbaro's edition, see Gislebertus Porretanus, *Liber de sex principiis*, ed. Migne (1855) col. 1257–70.

86 Boethius, *Translatio Aristotelis De interpretatione*, ed. Minio-Paluello and Verbeke (1965) 5–38.

87 James of Venice, *Translatio Aristotelis Analyticorum posteriorum*, ed. Minio-Paluello and Dod (1968) 5–107. The version of the text which is transmitted in *CQ* was published in Venice in 1510 and bears the siglum *Ib* in the edition of Minio-Paluello and Dod (1968: 356–8).

88 Lohr (1988: 460).

division, but it seems that the differences between the three editions mainly concern the text layout and paratextual elements (particularly indexes) of *CQ*.[89] For instance, the text of MS.MSL.1 transmits a series of marginal notes, i.e. eleven enumerated points (ff. 18v–19r) which are also printed in the corresponding text of the third edition; these marginal notes are absent from the other two editions.[90] The third edition was first published in Venice in 1578; this year, then, should perhaps serve as the terminus post quem for the Greek translation.

2.2 Learning Greek

The quaternion of ff. 166–173 is a peculiar section in terms of codicological features and content; it forms a misplaced quire,[91] which includes a selection of Greek language exercises similar to the *thematoepistolai* published by Martinus Crusius[92] or the *themata* of Jacob Diassorinos.[93] The method is described in both Greek and Latin by Crusius himself as follows: 'The *thematoepistolai* are set phrases which are posited by the teacher in the vernacular language and are then rendered by the students into the learned language'.[94] The *themata* would often have the form of the heading of a letter or an abstract, whereas their content would include traditional Byzantine epistolographic topics or more modern motifs.[95] The Wellcome Library manuscript contains twenty-four topics, of which seven were added at a later time (nos 3, 5, 9, 11, 12, 17 and 20, below). The vernacular and learned versions of the original exercises were copied alternately, whereas the later additions were written in the margins wherever there was space left. MS.MSL.1 once perhaps contained more *themata*, since the catchword at the lower margin of f. 171v transmits the beginning of the learned version of exercise no. 5 which is missing from the codex.

89 On the title pages of the second and of the third edition we read 'adiecto indice quaestionum' and 'adiecto indice non solum quaestionum: sed etiam rerum ac verborum' respectively.

90 Compare the first edition of Rome (1572) p. 50r^{a}.28–^{b}3; the second edition of Lyon (1584) pp. 82v.30–83r.6; and the third edition of Cologne (1579) pp. 91^{b}.40–92^{a}.14.

91 I have not examined MS.MSL.1 *in situ*, therefore I cannot know whether this quire is codicologically distinct from the rest of the codex. On the placement of the quire in the manuscript, see Bouras-Vallianatos (2015: 282) and the beginning of Section 2.2.

92 Crusius (1584: 217–27, 238–55, 347–70). For the manuscript tradition of the *thematoepistolai*, see Toufexis (2009: 333, n. 94) and Katsaros (2009: 210–12).

93 Kourouni (1969); Mantouvalou (1973); Canart (1979: 78).

94 Crusius (1584: 349) [in Latin].

95 Toufexis (2009: 307).

From the content of these *themata* we may infer that most of them constitute a sort of Christian chrestomathia:[96] nos 1 and 18 refer to the mischiefs caused by Cupid; no. 2 is a *thema* on the various crafts; no. 3 explains why a member of the clergy who studies abroad should avoid talking too much; no. 4 concerns fleas and lice; nos 5, 16, 19, 20 and 21 schematise various juxtapositions, such as of being poor versus rich and good versus bad; no. 6 teaches courage in the face of the calamities of this world; nos 7 and 11 are dedicated to Saint Nicholas and Lent respectively; nos 8, 9, 12 and 17 give an account of sinners and sin; nos 10 and 13 are exercises on writing a letter to a friend; no. 14 explains how to be pious; no. 15 is a *thema* on generosity; nos 22 and 23 cover pseudo-scientific approaches concerning human behaviour (physiognomonics and the influences of celestial bodies); no. 24 counsels in favour of avoiding the quarrelsome. In the table below the original orthography, accentuation and punctuation of the manuscript have been kept.

		f. 166r
1	vernacular	inc. πολλὰ καὶ μεγάλα κακὰ κάμνει ὁ ἔρως εἰς τοὺς ἀνθρώπους, καὶ τέτοιας λογῆς, ὁποῦ σχεδὸν εἶναι ἀδιήγητα; des. ἀπέχετε ἄνθρωποι ἀπὸ ἐτοῦτον
	learned	inc. οἷα δεινὰ τοῖς ἀνθρώποις ὁ ἔρως ποιεῖ, καὶ τοιαῦτα, ὥστε σχεδὸν μὴ διηγεῖσθαι; des. ἀπέχετε τούτου ὦ ἄνθρωποι

		f. 166v
2	vernacular	inc. Γνωρίζοντας οἱ ἄνθρωποι τὴν ἀδυναμίαν τους; des. τὸν ὑστερεῖ καὶ ἀπὸ ἐκεῖνα ὁποῦ ἔχει
	learned	inc. Γινώσκοντες οἱ ἄνθρωποι τὸ ἀσθενὲς αὐτῶν; des. καὶ τὰ ὑπάρχοντα αὐτὸν ὑστερεῖ
3	vernacular	inc. ἄν σε διδάσκουν πάτερ ἅγιε καθεκάστην; des. λέγω, νὰ συντυχένεις ὀλίγα
	learned	[see f. 173r, below]

96 See the very interesting remarks of Mantouvalou (1973: 587–8).

		f. 167r
4	vernacular	inc. Ὦ ἄνδρες, οἱ ὁποῖοι βρύετε ψήρας καὶ ψύλας; des. καὶ δὲν γεννῶνται αἱ ψῆραι καὶ ψύλαι
	learned	inc. Ὦ ἄνδρες οἱ ψήραις καὶ ψύλαις βρύοντες; des. καὶ δὴ οὐ φύονται αὖται
5	vernacular	inc. Διότι ὡς ἂν {τὸ λέγειν} ὁ λόγος; des. ἀνάγκη εἶναι νὰ λαμβάνει ὕβριτας καὶ ξυλαῖς
	learned	[see f. 171v, below]
		f. 167v
6	vernacular	inc. Δὲν πρέπει ὁ ἄνθρωπος νὰ λυπεῖται; des. ἕως ὅτου νὰ τὰ θανατώσει διώκοντάς τα
	learned	inc. Οὐ δεῖ λελυπεῖσθαι τὸν ἄνθρωπον; des. ἄχρις ἂν καταβάληται ταύτας ἐλαύνων
		f. 168r
7	vernacular	inc. Εἰς κάθε τόπον οἱ ἄνθρωποι ἑορτάζουσι τὸν μέγαν Νικόλαον; des. ἀλλὰ ἐναντίον καὶ ἐχθρὸν εἰς τὴν ψυχήν τους
	learned	inc. Ἐν παντὶ τόπῳ οἱ ἄνθρωποι τὸν μέγαν Νικόλαον ἑορτάζουσι; des. ἀλλ᾽ ἐναντίον καὶ ἐχθρὸν κατὰ τῶν ἑαυτῶν <ψυ>χῆς
		f. 168v
8	vernacular	inc. Τὰ ξύλα ὁποῦ ἀνάπτονται εὔκολα εἰς τὴν φωτίαν; des. διὰ τοῦτο ἄξιον καὶ δίκαιον εἶναι νὰ τὴν φεύγη τινὰς περισσότερον ἀπὸ κάθε λογῆς φωτίαν
	learned	inc. Τὰ ὑπὸ τοῦ πυρὸς ῥαδίως ἁπτόμενα ξύλα; des. διὸ καὶ ταύτην ἀποκριττέον, μᾶλλον ἀπήεις φλογός
9	vernacular	inc. Ἀφότις οἱ ἄνθρωποι ἄρχισαν νὰ πονηρεύωνται; des. δὲν ἀπερνᾶ πολλὴ ὥρα καὶ πίπτει εἰς ἄλλον χειρότερον
	learned	[see f. 171r, below]

		f. 169r
10	vernacular	inc. πολλάκις ἔγραψα τῆς ἀφθεντίας σας πῶς εὑρίσκομαι ἐδῶ; des. γράψετέ μου ἀκόμα ἀν κάμη καὶ ἄλλο τίποτες χρεία
	learned	inc. Πολλάκις ἐπέστειλα πρὸς ἡμᾶς ὅπως ἐνθάδε ἔχω; des. ἔτι δὲ ἀν καί τι χρεῶν εἴη ἕτερον ἐπιστείλατε
11	learned	inc. Ἐπειδήπερ ἡ ἁγία παρήχθη τεσσαρακοστή; des. ἐν οἷς τὸν ἀπιόν χρόνον ἐκυλινδοῦτο
	vernacular	in margine Cη΄, that is to say σημείωσαι or σημείωσις [see f. 170r]
12	vernacular	inc. καὶ εἰ μὲν ἁμαρτωλοί; des. δίκην χρυσοῦ καθαρωτάτου καὶ ἀκιβδήλου
	learned	[see f. 170v, below]
		f. 169v
13	vernacular	inc. Ἤθελα νὰ ἐγνωρίσω, ἂν εἶμαι ἀγαπητὸς; des. ἠμὴ ἂν δὲν κάμης τοιουτοτρόπως ἐσὺ ὄψει
	learned	inc. Ἐβουλόμην μὲν οὖν εἰδέναι, εἰ συνήθης εἰμὶ; des. ἢν δὲ μὴ οὕτως ποιήσης, αὐτὸς ὄψει
14	vernacular	inc. Ἐκεῖνος ὁ<ποῦ> σπουδάζει εἰ τῆς φιλίαν τοῦ θεοῦ; des. κάμνει χρεία νὰ ἔχει ἔχθρόν τὸν διάβολον
	learned	inc. Ὁ τῇ φιλίᾳ σπουδάζων τοῦ θεοῦ; ἐκεῖνον ἔχειν δεῖ ἐχθρὸν τὸν διάβολον
		f. 170r
15	vernacular	inc. Ἂς ἤμασθε καλοὶ καὶ ἂς δίδομεν; des. καὶ αὐτὸς σᾶς ζητεῖ διατὶ τὰ χρειάζεται
	learned	inc. Καλῶς ἔχοιμεν καὶ διδῶμεν; des. ὁ δ’ αὐτὸς ὑμῖν ἐπιζητεῖ· καὶ γὰρ τούτων δεῖται
11	vernacular	inc. Ἐπειδή ἔφθασεν ἡ ἁγία τεσσαρακοστή; des. εἰς τὰ ὁποῖα ἐκυλιετον τὸν ἀπερασμένον καιρόν
	learned	on the lower margin the hint ὕπαγε παρομπρός [that is to say f. 169r] νὰ εὑρῆς τὸ $C^{\eta'}$

		f. 170v
16	vernacular	inc. Ἐκεῖ ὁποῦ τινὰς δύναται νὰ κάμη καλόν; des. ὡς καὶ φαίνεται ὅτι ἔγινεν εἰς πολλοὺς εἰς τὰ θεῖα καὶ ἱερὰ γράμματα
	learned	inc. Οὗ μὲν τὶς εὖ ποιεῖν δύναται; des. ὡς ἔστιν ἰδεῖν ἐν τοῖς ἱεροῖς γράμμασι· τοῖς πολλοῖς γεγονέναι
17	vernacular	inc. μὴν ἀμελοῦμεν λοιπόν ουδεποσῶς; des. τὰς παραγγελίας ὁποῦ μας διδάσκει ἡ ἁγία ἐκκλησία
	learned	inc. μὴ τοίνυν ῥάθυμοι ὅλως γενώμεθα; des. ἐντολαῖς παραδόντες ταῖς ὑπὸ τῆς ἁγίας ἐκκλησίας διδασκομέναις [on the inner margin]
12	vernacular	inc. καὶ ἂν ἤμαστε ἁμαρτωλοί; des. ὡς ἂν τὸ χρυσάφι τὸ καθαρὸν καὶ ἄδολον
	learned	[see f. 169r, above]

		f. 171r
18	vernacular	inc. Ἕνας τινὰς ἄνθρωπος ἐπεθύμει νὰ γένη ἀείδαρος; des. ὕστερον ὡς ἂν ἀείδαρος ἐψώφισεν καὶ ἔγινε φαγιτὸν τῶν ὀρνέων
	learned	inc. Ὄνος ἐπεθύμησε τὶς γενέσθαι; des. εἰς τὸ ὕστερον αὖθις ὄνος ἐφώνησεν, καὶ βορὰ τοῖς ὀρνέοις γέγονε
9	learned	inc. Ἀφ' οὗ ἤρξαντο πονηρεύεσθαι οἱ ἄνθρωποι; des. μετολίγον εὐθὺς, εἰς ἕτερόν τι εμπίπτει χαλεπώτερον
	vernacular	[see f. 168v, above]

		f. 171v
19	vernacular	inc. Ὅλοι οἱ καλοὶ τὸν καιρὸν ἐτοῦτον, πτωχεύσουσι καὶ δυστυχοῦσι; des. ἔπειτα θέλουσει γένει ὅλοι καλοί
	learned	inc. οἱ χρηστοῖ τῶν ἀνθρώπων, ἐν τῷ παρόντι ἀτυχοῦσι καὶ πένονται; des. εἶτα χρηστοὶ γενήσονται ἅπαντες
20	vernacular	inc. οἱ πτωχοί, ἔστοντας νὰ εἶναι ἐνδεδυμένοι μὲ φορέματα παλαιά; des. ἂν ἴσως καὶ ἤθελαν τἀπῆ τὰ χειρότερα
	learned	[see f. 172v, below]
5	learned	only the beginning of the text: Διότι ὡς ἦν
	vernacular	[see f. 167r, above]

		f. 172r
21	vernacular	inc. λυποῦνται οἱ ἄνθρωποι μεγάλως; des. καὶ ὡς ἀν νὰ ἐπαραπονεῖτον εἰς τὸν θεόν
	learned	inc. Μέγα οἱ ἄνθρωποι ἄχθονται; des. οἱον<ε>ί ἐπὶ τῷ θεῷ ἀγανακτῶν ἦν
		f. 172v
22	vernacular	inc. Ἐκεῖνος ὁποῦ ὁμοιάζει τῶν ἀλόγων; des. διότι καὶ ἀλώπηξ εἶναι τέτοιας λογῆς
	learned	inc. Ὁ τὴν θέαν τοῖς ἀλόγοις ζώοις ἐοικώς; des. καὶ γὰρ ἡ ἀλώπηξ τοιαύτη ἐστί
20	learned	inc. οἱ πένητες, ἀμπεχόμενοι τριβώνια; des. πάντως μετέχειν ἀνάγκη τῶν κακῶν
	vernacular	[see 171v, above]
		f. 173r
23	vernacular	inc. Ὅσοι γεννηθοῦσιν εἰς τὴν ὥραν τῆς ἀφροδίτης, γίνονται πορνοκόποι; des. ὅτι ἐγὼ δὲν ἦμουν ἐκεῖ ὅταν ἐγίνονταν
	learned	inc. Οἱ μὲν ἐπὶ τὴν τῆς ἀφροδίτης ὥραν τεχθέντες, πορνοκόποι εἰσίν; des. οὐδὲ γὰρ ἤμην παρὼν ἡνίκα ταῦτα ἐγένετο
3	learned	inc. Εἰ καθεκάστην πάτερ ἅγιε παραινοῦσι σε; des. τὸ βραχέα λέγειν φημί
	vernacular	[see f. 166v, above]
		f. 173v
24	vernacular	inc. Τοὺς φιλονίκους καὶ ἐκείνους ὁποῦ λογιάζουσι τοῦ λόγου τους διὰ φρονίμους; des. νὰ μὴν διωχθῆτε ἀπὸ κάθε λογῆς συντροφίαν
	learned	inc. Τοὺς ἐρίζοντας, καὶ ἑαυτοὺς εὖ φρονεῖν οἰομένους; des. ἵνα μὴ πάσης ὁμιλίας ἀποπεμφθῆτε

2.3 A compendium of **Apr.**

Folia 178r–200v contain an anonymously transmitted compendium of *APr.* (ff. 179v, 183v, 192v are blank). Whether this is another case of a Latin work rendered in Greek, should be the subject of further investigation. The text on *APr.* consists of (a) summarised parts of the Aristotelian treatise and (b) an abundance of explanatory logical diagrams[97] and examples. The part of the text on Book I is divided into nine sections corresponding to chapters 2–3 and 5–11 of the Bekker edition; this part of the text begins with a short introductory note and includes the occasional lemma from the respective Aristotelian text. The seven sections on Book II correspond to chapters 22–27 of the Bekker edition and do not transmit any lemmata. What is of interest is the content of f. 191v which concerns the use of memory words and the vowels A, E, I, O to symbolically represent valid deductions and categorical propositions respectively.[98] This digression, however, seems somewhat out of place, since mnemonics and logical diagrams have been used in parallel from the beginning of the compendium.

Some of the folia are misplaced; the table below gives the correct text sequence:

APr. I
(ff. 178r–179r) comments on chapters 2–3; on f. 178r title: Εἰς τὸ πρῶτον τῶν προτέρων; lemma: Ἐπειδὴ πᾶσα πρότασις (25a1)
(ff. 180r–183r) comments on chapter 4; on f. 180r κεφάλαιον β΄; lemma: Ὅταν οὖν ὅροι οὕτως ἔχουσι (25b32)
(ff. 184r–185v) comments on chapter 5; on f. 184r περὶ τοῦ γ΄ κεφαλαίου
(ff. 186r–188v) comments on chapter 6; on f. 186r κεφάλαιον δ΄
(ff. 189r–191v) comments on chapter 7; on f. 189r κεφάλαιον ε΄
(f. 192r) comments on chapter 8; on f. 192r περὶ τοῦ στ΄ κεφαλαίου
(f. 193rv) comments on chapter 9 (until 30b6); on f. 193r κεφάλαιον ζ΄; lemma: Συμβαίνει δέ ποτε καὶ τῆς ἑτέρας προτάσεως ἀναγκαίας οὔσης (30a15–16)
(ff. 198r–199v) comments on chapter 10; on f. 198r lemma: Ἐπεὶ δὲ τοῦ δευτέρου σχήματος (30b7)
(f. 200r) comments on chapter 11 (until 31a35); lemma: Ἐν δὲ τῷ τελευταίῳ σχήματι (31a18)

(*Continued*)

97 On the use of logical diagrams in Greek manuscripts, see Panizza (1999); Cacouros (2001).
98 On the Byzantine history of this method, see Duffy (1988); Bydén (2004: 147–53).

(Cont.)

APr. II
(f. 196v–197r) comments on chapter 22, 68a16–39; on f. 196v Περὶ τῶν κατὰ ἀντιστροφὴν συλλογισμῶν· πῶς ἀντιστρέφουσιν αἱ προτάσεις [the text on f. 197r was written upside down]
(f. 195r) diagram on chapter 22, 68a25–39
(f. 194v) comments on chapter 23, 68b15–37 [the text was written upside down]
(f. 195v) comments on chapter 24, 68b38–69a13
(f. 196r) comments on chapter 25, 69a20–36; Περὶ ἀπαγωγῆς
(f. 197v) comments on chapter 26, 69a37–b19; Περὶ ἐνστάσεως
(f. 194r) comments on chapter 27, 70a2–9 (Περὶ εἰκότος καὶ σημείου) and 70a9–38 (Περὶ ἐνθυμήματος)

The correct text sequence of the section on Book I is also indicated by the quire signatures:

- Greek numeral α΄ in the middle of the lower margin on the last verso of the quaternion 178r–185v.
- Greek numeral β΄ in the middle of the lower margin on the first recto and the last verso of the quaternion 186r–193v.
- Greek numeral γ΄ in the middle of the lower margin on f. 198r.

I have not examined the Wellcome Library manuscript *in situ*, but these codicological features, the misplaced section on Book II and the folia with the reversed text indicate a different previous arrangement of the folia, which had been made before the final binding of the codex.[99] The section on Book I must have originally consisted of two quaternions and one binion from which one folio seems to be missing (ff. 198–200). Since there does not appear to be any text missing from the section on Book II 22–27 (ff. 194–197), one might assume that it was probably copied on a loose binion whose disarranged folia were later mistakenly placed between the second and third quire of the section on Book I. Finally, the Greek numerals of the quire signatures of the folia which contain the text on Book I and the complete absence of catchwords in the text on *APr.* may suggest that the compendium either derives from another manuscript, or that it was copied as part of some other project.

99 Cf. Bouras-Vallianatos (2015: 282).

3 Postscript or some conjectures on the emergence of the texts in Wellcomensis MS.MSL.1

The content and the paratextual material in MS.MSL.1 (occasional annotations of Latin terms along with their Greek translation)[100] probably point to a provenance in the milieu of the Greek colleges in Italy. The Aristotelian sections of the codex (*CQ*, compendium of *Apr.*) are in conformity with the first-year studies in late sixteenth-century Jesuit educational establishments.[101] In fact, the only Greek educational institution that has a corresponding curriculum is the Collegio Greco di Sant'Atanasio. The Greek School of Venice and the Palaiokapas, Kottounios and Flagginis colleges can be excluded as candidates; elementary Greek and Latin were the only courses offered at the first two institutions,[102] whereas the latter two post-date the Wellcome Library manuscript. The Greek College of Rome was administered by the Jesuits during the years 1591–1604 and 1622–1773;[103] it is also worth mentioning that the students of this school had been attending parallel philosophical courses at the Collegio Romano since 1591[104] and that the second period of Jesuit administration coincides with the date of MS.MSL.1. Moreover, with regard to the *themata*, we know that this method was also employed at the Greek College of Rome.[105]

There is, however, something that impugns my hypothesis: both the philosophical courses and the everyday discourse at the Greek college would have been conducted in Latin;[106] so why would anyone go to the trouble of translating a highly technical text like *CQ* into Greek? Nonetheless, most of the Greek 'freshmen' had no knowledge whatsoever of Latin[107] and the restrictions on the use of their mother language did not apply to senior students.[108] In fact, those students who completed the first year of their theological studies (i.e. those who had already completed the study of philosophy) would be offered a sort of unpaid internship as teachers, which was meant to help their younger colleagues; this

100 Bouras-Vallianatos (2015: 282).

101 According to the *Ratio* of 1599, the professor of philosophy 'should explain the principles of Logic the first year … not by dictating but by discussing pertinent passages from Toledo or Fonseca … He should cursorily cover the second book *On Interpretation* and both books of the *Prior Analytics*' [English translation by Farell (1970: 41); for the text in Latin, see *Ratio atque instutio studiorum Societatis Iesu*, ed. Lukács (1986) 397–8].

102 On the lessons at the Greek School of Venice, see Mertzios (1939: 170). Courses took place at the Palaiokapas College only during the first years of its operation; see Stergellis (1970: 51); Karathanasis (2010: 474).

103 Krajcar (1965); Krajcar (1966: 16–35); Tsirpanlis (1980: 39–40).

104 Tsirpanlis (1980: 69–70, 74–6).

105 Tsirpanlis (1980: 58–9).

106 See the Introduction, above.

107 Tsirpanlis (1980: 77).

108 Legrand (1895: 502).

service was called 'ὀφφίκιον' and became official as late as 1624.[109] Furthermore, the rules in favour of Latin were also an integral part of the *Ratio*, therefore they applied to all Jesuit schools.[110] Perhaps these language prohibitions should be regarded as an indication that the vernacular or even foreign languages were employed at Jesuit schools de facto. In this case, the translation of a Latin commentary into Greek as an aid for beginners or for those students of the college who did not know Latin, would be conceivable.

There was a student of the Greek College of Rome who might have undertaken such a task: Frangkiskos Kokkos. A native of Naxos, where he was born around 1573/4, Frangkiskos was admitted to the College of Saint Athanasios in 1587 where he had studied Latin and Greek, Aristotelian natural philosophy and metaphysics. He obtained his 'licentia docendi' from that school in 1601, but he had already started teaching Greek at the college four years before his graduation. In 1602 he decided to return to Naxos, where he continued his teaching activities. At the invitation of Patriarch Raphael II, Kokkos was appointed Head of the Patriarchal School in 1603/4.[111] An interesting incident that throws light on Kokkos' expertise in Aristotelian logic is an important point for my second hypothesis. Due to health problems the scholar was forced to pause his studies in 1594 and move to Naxos where he stayed for the better part of a year (he returned to Venice in 1595). On 16 April 1594 Frangkiskos wrote from the island to his friend Dionysios Katelianos (1540–ca. 1630) that he was still not able to focus on the translation of a Latin *Introduction to Logic*; it seems that the project had been planned at the request of Dionysios:

Kokkos	Translation
Ἔστι δέ μοι οὐ τοσούτω δεινὸν ἡ κεφαλαλγία, ὅσῳ τὸ δι' αὐτὴν τὴν ὑπεσχημένην <μὴ> ἀποτῖσαί σοι χάριν· οὐδὲ γὰρ οἷός τε ἐγενόμην τὴν εἰς τὴν Λογικὴν πραγματείαν εἰσαγωγὴν ἐκ τῆς Λατίνης εἰς τὴν πατρῷαν γλῶτταν μεταλαβεῖν, καὶ ταῦτα ἀξιώσαντος σοῦ καὶ δεηθέντος.[112]	The headache that I have is not as terrible as the fact that I did not grant you the promised favour; for I was not fit at all to render the Introduction to Logic from Latin into the patrimonial language, even if you required it and needed it.

109 Tsirpanlis (1980: 62–3, 66–7).

110 *Ratio atque institutio studiorum Societatis Iesu*, ed. Lukács (1986) 370.

111 Tsirpanlis (1980: 303–6).

112 The letter was published for the first time in Lamius (1740: 83–5) and was later re-edited with a commentary in Oikonomos (1863: 30–1) [with corrections to the text of Lamius] and in Tsiter (1934: 55–7) [from another manuscript]. Apart from the addition of μὴ in the second line, I quote the text of the latter publication (Lamius and Oikonomou also read ἀποτῖσαί).

It is quite tempting to assume that the rendering of the Latin *Introduction* into Greek[113] refers to the Greek *Ἑρμηνεία* of *CQ*, which was ultimately recommended by the Jesuits as one of the three standard introductions to Aristotelian logic.[114] Kokkos and the anonymous translator speak of a translation 'ἐκ τῆς Λατίνης' and 'ἐκ λατίνου' respectively;[115] furthermore the use of the plural form 'ταῦτα' in Kokkos' letter is perhaps a reference to the title of the subsequent work (*Commentaria una cum quaestionibus*). Dionysios was a teacher, a respected scholar and a bibliophile, as his correspondence reveals.[116] Moreover, he could have had access to the third edition of *CQ* at Venice, where he served as chaplain of San Giorgio dei Greci between 1588 and 1602 or 1615.[117] Dionysios could easily fit the clerical profile of the author of the *themata* in MS.MSL.1. We must also bear in mind that one of these exercises refers to Saint Nicholas, the patron saint of the Greek Brotherhood of Venice.[118] If the dating by analogy with the watermarks in MS.MSL.1 is correct, then neither Kokkos nor Katelianos can be directly responsible for the Wellcome Library codex. The incomplete version of *CQ* as well as the other texts in the codex, however, might be a copy[119] of an earlier exemplar containing works of these two important Greek scholars.

113 Oikonomou wonders whether the anonymous *Εἰσαγωγὴ τῆς Λογικῆς* in codex 452 (seventeenth century; 79f.) of the Monastery of Saint John the Theologian on Patmos is the actual translation by Kokkos [Oikonomos (1863: 15, n. a); Sakkelion (1890: 204)]. I am very grateful to Dr. Zisis Melissakis for sending a list of incipits/desinits of the sections of the *Εἰσαγωγή*, which is divided into three books covering the whole of the *Organon* [(ff. 1r–3r) introduction; (from f. 3v) Book I, i.e. on *Cat.*; (from f. 21r) Book II, i.e. on *Int.*; (from f. 38v) Book III, i.e. on *APr.*, *APo.*, *Top.*, *SE*]. The compendium of Patmos does not seem to be a translated work by either Toledo or Fonseca [see Section 2.1. and n. 95, above]. Finally, the Patmiacus is not recorded in Wartelle (1963) or Argyropoulos and Caras (1980).

114 See Section 2.1, above.

115 I am greatful to the anonymous referee for the hint concerning this relevance. See the quote of the Greek text at the beginning of Section 2.1, above.

116 Lamius (1740: 62–104).

117 Papadopoulou (1965: col. 39–40).

118 Karathanasis (2010: 28); Burke (2016: 117). The *themata* were also used by John Nathanael, another chaplain of San Giorgio and teacher (second half of the sixteenth century); see Canart (1979: 77–8).

119 The anonymous referee deems that 'this is also suggested by the errors in vocabulary and syntax, which are unlikely to be due to the author himself'.

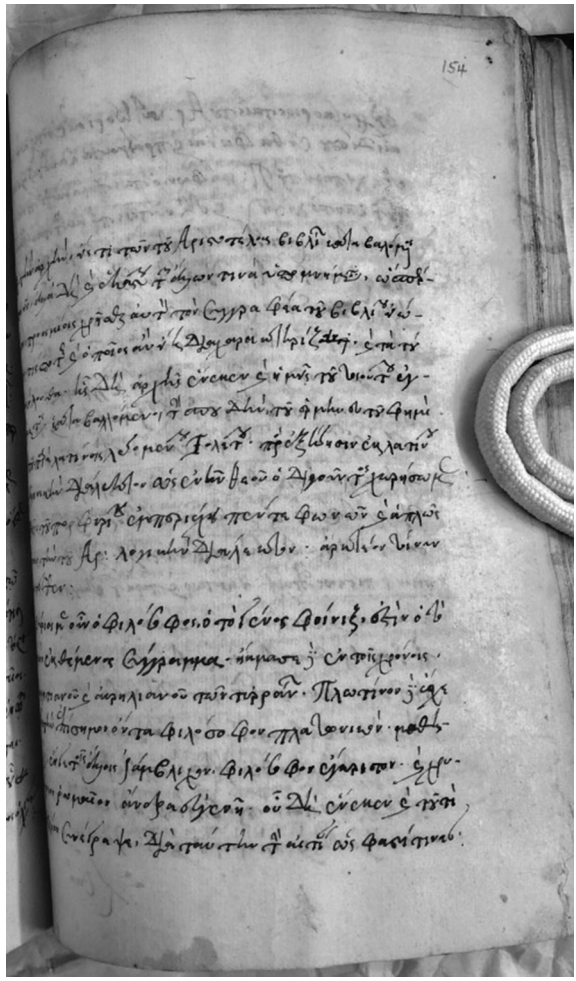

Figure 7.1 Londiniensis Wellcomensis MS.MSL.1, f. 154r.
Photograph by Petros Bouras-Vallianatos.

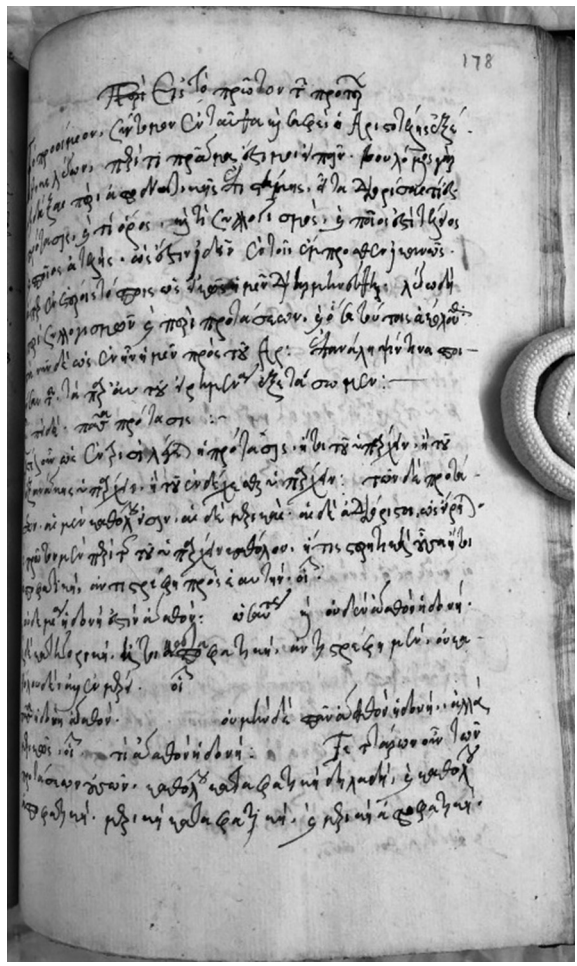

Figure 7.2 Londiniensis Wellcomensis MS.MSL.1, f. 178r.
Photograph by Petros Bouras-Vallianatos.

Bibliography

Agiotis, N. 2019. 'Greek Aristotelianism in the Seventeenth Century: Uncovering Cesare Cremonini in the Works of Theophilos Korydalleus', *Byzantine and Modern Greek Studies* 43.1: 105–16.

Agiotis, N. 2020. (forthcoming). 'Griechischer Aristotelismus im 16. Jh.: Der Fall von Theophanes Eleavourkos', in C. Brockmann (ed.), *Aristoteles-Kommentare und ihre Überlieferung in Spätantike, Mittelalter und Renaissance*. Berlin: De Gruyter.

Alexandrou, M. 2017. *Παλαιογραφία Βυζαντινής Μουσικής. Μουσικολογικές & καλλιτεχνικές αναζητήσεις*. Athens: Hellenic Academic Ebooks, available at http://hdl.handle.net/11419/6487 (accessed 31 May 2019) .

Anagnostou, M. S. 2012–13. 'Μανουὴλ Κορινθίου τοῦ μεγάλου ρήτορος Λόγος στὴν Ἀνάσταση καὶ στὴ Ζωοδόχο Πηγή', *Βυζαντιακά* 30: 365–80.

Apostolopoulos, D. G. 1976. 'Ὁ Ἀλέξανδρος Μαυροκορδάτος καὶ τὸ «ὑπόμνημα» τοῦ Κορυδαλέα στὸ «Περὶ γενέσεως καὶ φθορᾶς» τοῦ Ἀριστοτέλη (Cod. Athen. 1173, ff. 146r-154v)', *Ἑλληνικά* 29: 311–15.

Argyropoulos, R. D. and Caras, I. 1980. *Inventaire des manuscrits grecs d'Aristote et de ses commentateurs. Contribution à l'histoire du texte d'Aristote. Supplément*. Paris: Les Belles Lettres.

Ashworth, E. J. 2008. 'Developments in the Fifteenth and Sixteenth Centuries', in D. M. Gabbay and J. Woods (eds.), *Handbook of the History of Logic*, *vol. II*: *Mediaeval and Renaissance Logic*. Amsterdam: Elsevier, 609–43.

Baldini, U. 1998. 'Die Schulphilosophie', in J.-P. Schobinger (ed.), *Die Philosophie des 17. Jahrhunderts, vol. 1.2: Allgemeine Themen, Iberische Halbinsel, Italien*. Basel: Schwabe & Co, 619–769 [G.G.P.].

Benakis, L. G. 2001. *Μεταβυζαντινὴ φιλοσοφία: 17ος – 19ος αἰώνας: Ἔρευνα στὶς πηγές*. Athens: Parousia.

Bianchi, L. 2009. 'Per una storia dell'aristotelismo "volgare" nel Rinascimento: problemi e prospettive di ricerca', *Bruniana & Campanelliana* 15.2: 367–85.

Bobou-Stamati, V. 1995a. 'Ο Μεθόδιος Ανθρακίτης και τα «Τετράδια»', *Έλληνικά* 45: 111–27.

Bobou-Stamati, V. 1995b. *Τὰ καταστατικὰ τοῦ σωματείου (nazione) τῶν Ἑλλήνων φοιτητῶν τοῦ Πανεπιστημίου τῆς Πάδοβας (17ος – 18ος αἰ.)*. Athens: Geniki Grammateia Neas Genias.

Bouboulidis, F. K. 1959. 'Μιχαήλ-Ἑρμόδωρος Λήσταρχος, Ἕλλην λόγιος τοῦ ιστ΄ αἰῶνος', *Παρνασσός* [2nd series] 1: 283–300.

Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: A Descriptive Catalogue', *Medical History* 59.2: 275–326.

Bouwsma, W. J. 1968. *Venice and the Defense of Republican Liberty: Renaissance Values in the Age of Counter Reformation*. Berkeley, CA: University of California Press.

Bovo, T. 2015. *Giovanni Cottunio e gli intellettuali greci a Padova nel XVII secolo: dalla matrice accademica alla prospettiva panellenica*. Università Ca' Foscari Venezia: PhD thesis, available at http://hdl.handle.net/10579/5641 (accessed, 8 November 2018).

Burke, E. C. 2016. *The Greeks of Venice, 1498–1600: Immigration, Settlement, and Integration*. Turnhout: Brepols.

Busse, A. (ed.). 1887: *Porphyrii Isagoge et in Aristotelis categorias commentarium*. Berlin: Typis et Impensis Georgius Reimer [C.A.G., IV.1].

Bydén, B. 2004. '"Strangle Them with These Meshes of Syllogisms!" Latin Philosophy in Greek Translations of the Thirteenth Century', in J. O. Rosenqvist (ed.), *Interaction and Isolation in Late Byzantine Culture*. Stockholm: Swedish Research Institute in Istanbul, 134–58.

Cacouros, M. 2001. 'Les schémas dans les manuscrits grecs de contenu logique: raisons d'être, fonctions et typologie', *Gazette du livre médiéval* 39: 21–33.

Canart, P. 1979. *Les Vaticani Graeci 1487–1962: Notes et documents pour l'histoire d'un fonds de manuscrits de la Bibliothèque vaticane*. Vatican: Biblioteca Apostolica Vaticana.

Chatzimichael, D. K. 2002. *Ματθαίος Καμαριώτης. Συμβολή στη μελέτη του βίου, του έργου και της εποχής του*. Aristotle University of Thessaloniki: PhD thesis, available at http://hdl.handle.net/10442/hedi/20545 (accessed, 8 November 2018).

Crusius, M. 1584. *Turcograeciae libri octo … quibus Graecorum status sub imperio Turcico, in Politia & Ecclesia, Oeconomia & Scholis, iam inde ab amissa Constantinopoli, ad haec usque tempora, luculenter describitur*. Basel: Per Leonardum Ostenium, Sebastiani Henricpetri impensa.

de Toledo, F. 1572. *Commentaria una cum quaestionibus in universam Aristotelis logicam*. Venice: Apud Victorium Aelianum.

de Toledo, F. 1579. *Commentaria una cum quaestionibus in universam Aristotelis logicam*. Cologne: Apud haeredes Arnoldi Birckmanni.

de Toledo, F. 1584. *Commentaria una cum quaestionibus in universam Aristotelis logicam*. Lyon: Apud Alexandr. Marsilium, Lucensem.

Dolaptsoglou, A. A. 2014. 'Το Κωττουνιανό Κολλέγιο της Πάντοβας και οι υπότροφοί του (1657–1772)', *Θησαυρίσματα*/*Thesaurismata* 44: 361–77.

Duffy, J. 1988. 'Michael Psellos, Neophytos Prodromenos, and Memory Words for Logic', in J. Duffy and J. Peradotto (eds.), *Gonimos: Neoplatonic and Byzantine Studies Presented to Leendert G. Westerink at 75*. Buffalo, NY: Arethusa, 207–16.

Ebbesen, S. 2001. 'Caspar Bartholin', in M. Pade (ed.), *Renaissance Readings of the* Corpus Aristotelicum. *Proceedings of the conference held in Copenhagen 23–25 April 1998*. Copenhagen: Museum Tusculaneum Press and University of Copenhagen, 207–24.

Escobar, A. 2000. 'Aristotelis Hispanus: transmisiòn textual y pervivencia literaria de Aristòteles en España (hasta 1600)', in G. Prato (ed.), *I manoscritti greci tra riflessione e dibattito: Atti del 5 Colloquio internazionale di paleografia greca, Cremona, 4–10 ottobre 1998*. Florence: Gonnelli, 715–18.

Farell, A. P. 1970. *The Jesuit* Ratio Studiorum *of 1599. Translated into English with an Introduction and Explanatory Notes*. Washington, DC: Conference of Major Superiors of Jesuits.

Fyrigos, A. 2001. 'Joannes Cottunios di Verria e il neoaristotelismo padovano', in M. Pade (ed.), *Renaissance Readings of the* Corpus Aristotelicum. *Proceedings of the conference held in Copenhagen 23–25 April 1998*. Copenhagen: Museum Tusculaneum Press and University of Copenhagen, 225–40.

Gamillscheg, E. 2009. 'Beobachtungen zur Biographie des Kopisten Symeon Kabasilas', in S. Perentidis and G. Steiris (eds.), *Ἰωάννης καὶ Θεοδόσιος Ζυγομαλάς*. Athens: Daidalos, 21–38.

Gritsopoulos, T. A. 1966. *Πατριαρχικὴ Μεγάλη τοῦ Γένους Σχολή*, vol. 1. Athens: G. Fexis.

Hanioğlu, Ş. 2010. *A Brief History of the Late Ottoman Empire*. New Jersey: Princeton University Press.

Karanasios, Ch. 1993. 'Die Begegnung der Neugriechen mit Aristoteles im Rahmen der ideologischen Auseinandersetzungen im griechischen Raum zu Beginn des 17. Jh.', in F. Berger et al. (ed.), *Symbolae Berolinenses für Dieter Harlfinger*. Amsterdam: Hakkert, 219–35.

Karanasios, Ch. 2001. *Sebastos Trapezuntios Kyminetes (1632–1702). Biographie, Werkheuristik und die editio princeps der Exegese zu* De virtute *des Pseudo-Aristoteles*. Wiesbaden: Reichert [S.G., X].

Karathanasis, A. E. 1975. *Ἡ Φλαγγίνειος Σχολὴ τῆς Βενετίας*. Thessaloniki: Kyriakides Bros.

Karathanasis, A. E. 2010. *Ἡ Βενετία τῶν Ἑλλήνων*. Thessaloniki: Kyriakides Bros.

Katsaros, V. 2009. 'Έργα του Θεοδοσίου Ζυγομαλά σε λανθάνον χειρόγραφο από τη μονή Τιμίου Προδρόμου Σερρών στη Σόφια (κώδ. Dujčev gr. 353)', in S. Perentidis and G. Steiris (eds.), *Ἰωάννης καὶ Θεοδόσιος Ζυγομαλάς*. Athens: Daidalos, 208–53.

Kourouni, E. 1969. 'Ἡ διδασκαλία τῶν ἑλληνικῶν γραμμάτων καὶ ἡ "Θεματογραφία" τοῦ Διασωρηνοῦ', *Παρνασσός* 11.3: 434–47.

Krajcar, J. 1965. 'The Greek College under the Jesuits for the First Time (1591–1604)', *Orientalia Christiana Periodica* 31.1: 85–118.

Krajcar, J. 1966. 'The Greek College in the Years of Unrest (1604–1630)', *Orientalia Christiana Periodica* 32: 5–38.

Kuhn, H. 1996. *Venetischer Aristotelismus im Ende der aristotelischen Welt: Aspekte der Welt und des Denkens des Cesare Cremonini (1560–1631)*. Frankfuhrt am Main: Lang.

Kuhn, H. 2018. 'Aristotelianism in the Renaissance', in E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, available at https://plato.stanford.edu/archives/spr2018/entries/aristotelianism-renaissance/ (accessed, 8 November 2018).

Lamius, I. 1740. *Deliciae eruditorum seu veterum ἀνεκδότων opusculorum collectanea*. Florence.

Legrand, É. 1889. *Notice biographique sur Jean et Théodose Zygomalas*. Paris: Ernest Leroux.

Legrand, É. 1894. *Bibliographie hellénique ou description raisonnée des ouvrages publiés par des Grecs au dix-septième siècle*, vol. 1. Paris: Alphonse Picard et fils.

Legrand, É. 1895. *Bibliographie hellénique ou description raisonnée des ouvrages publiés par des Grecs au dix-septième siècle*, vol. 3. Paris: Aphonse Picard et fils.

Lewry, O. 1987. 'The Liber Sex principiorum, a Supposedly Porretanean Work. A Study in Ascription', in J. Jolivet and A. de Libera (eds.), *Gilbert de Poitiers et ses contemporains: Aux origines de la Logica modernorum. Actes du septieme Symposium Europeen d'Histoire de la Logique et de la Semantique Medievales. Centre d'Etudes Supérieures de Civilisation Médiévale de Poitiers. Poitiers 17–22 Juin 1985*. Naples: Bibliopolis, 251–78.

Liddell, H. G., Scott, R. and Jones, H. S. (eds.). 1996. *A Greek-English Lexicon* [9th edn. 1940; with a revised supplement edited by P. G. W. Glare]. Oxford: Clarendon Press [=LSJ].

Lines, D. A. 2013. 'Rethinking Renaissance Aristotelianism: Bernardo Segni's *Ethica*, the Florentine Academy, and the Vernacular in Sixteenth-Century Italy', *Renaissance Quarterly* 66: 824–65.

Lohr, Ch. 1988. *Latin Aristotle Commentaries*, vol. II: *Renaissance Authors*. Florence: Leo S. Olchski.

Lohr, Ch. 1995. *Latin Aristotle Commentaries*, vol. III: *Index initiorum - Index finium*. Florence: Leo S. Olchski.

Lohr, Ch. 2013. *Latin Aristotle commentaries*, vol. I.1: *Medieval authors: A-L*. Florence: SISMEL Edizioni del Galluzzo.

Lukács, L. (ed.). 1986. *Ratio atque institutio studiorum Societatis Iesu (1586 1591 1599)*. Rome: Institutum Historicum Societatis Iesu [M.H.S.J., CXXIX/M.P.S.J., V].

Mantouvalou, M. 1973. 'Ἡ ἑλληνικὴ "θεματογραφία" στὴ Δύση', *Παρνασσός* 15.4: 582–99.

Marangon, P. 1977. *Alle origini dell'aristotelismo padovano (sec. XII–XIII)*. Padua: Antenore.

Mertzios, K. D. 1939. *Θωμᾶς Φλαγγίνης καὶ ὁ Μικρὸς Ἑλληνομνήμων*. Athens: Academy of Athens.

Mertzios, K. D. 2007. *Μνημεῖα Μακεδονικῆς Ἱστορίας* [2nd edition]. Thessaloniki: Society for Macedonian Studies.

Migne, J. P. (ed.). 1855. *Patrologiae cursus completus … Series secunda in qua prodeunt patres, doctores, scriptoresque Ecclesiae Latinae a Gregorio Magno ad Innocentium III*, vol. 188. Paris: J. P. Migne.

Minio-Paluello, L. (ed.). 1961. *Categoriae vel Praedicamenta. Translatio Boethii, Editio Composite, Translatio Guillelmi de Moerbeka, Lemmata e Simplicii commentario decerpta, Pseudo-Augustini Paraphrasis Themistiana*. Bruges and Paris: Desclée De Brouwer [A. L., I 1–5].

Minio-Paluello, L. 1965. 'Magister Sex Principiorum', *Studi medievali* [3rd series] 6 : 123–51 [reprinted in L. Minio-Paluello, *Opuscula: The Latin Aristotle*. Amsterdam: Hakkert, 1972, 536–64.].

Minio-Paluello, L. and Dod, B. G. (eds.). 1966. *Categoriarum supplementa. Porphyrii Isagoge, Translatio Boethii, et Anonymi Fragmentum vulgo vocatum 'Liber sex principiorum'*. Bruges and Paris: Desclée De Brouwer [A. L., I 6–7].

Minio-Paluello, L. and Dod, B. G. (eds.). 1968: *Analytica posteriora. Translationes Iacobi, Anonymi sive 'Ioannis', Gerardi et Recensio Guillelmi de Moerbeka*. Bruges and Paris: Desclée De Brouwer [A. L., IV 1–4].

Minio-Paluello, L. and Verbeke, G. (eds.). 1965. *De interpretatione vel Periermenias. Translatio Boethii*. ed. L. Minio-Paluello; *Translatio Guillelmi de Moerbeka*. Bruges and Paris: Desclée De Brouwer [A. L., II 1–2].

Moennig, U. 2016. 'Griechische Manuskripte im Osmanischen Reich – Greek Manuscripts in the Ottoman Empire', *Manuscript Cultures* 9: 32–4.

Moss, J. D. and Wallace, W. A. (eds.). 2003. *Rhetoric & Dialectic in the Time of Galileo*. Washington, DC: The Catholic University of America Press.

Nardi, B. 1958. *Saggi sull'aristotelismo Padovano: dal secolo XIV al XV*. Florence: G. C. Sansoni.

O'Meara, D. J. 1977. 'The Philosophical Writings, Sources, and Thought of Athanasius Rhetor (ca. 1571–1663)', *Proceedings of the American Philosophical Society* 121.6: 483–99.

Oikonomos, S. 1863. *Περὶ Φραγκίσκου τοῦ Κόκκου ἐπιστολή*. Athens: F. Karabinis.

Panizza, L. 1999. 'Learning the syllogisms: Byzantine visual aids in Renaissance Italy - Ermolao Barbaro (1543–93) and others', in C. Blackwell and S. Kusukawa (eds.), *Philosophy in the Sixteenth and Seventeenth Centuries. Conversations with Aristotle*. Aldershot: Routledge, 22–47.

Papadopoulos, T. 1988. *Η Νεοελληνική Φιλοσοφία από τον 16ο έως τόν 18ο αιώνα*. Athens: I. Zacharopoulos.

Papadopoulou, S. 1965. 'Διονύσιος Κατηλιανός', in *Θρησκευτική και Ηθική Εγκυκλοπαίδεια*, vol. 5. Athens: Martinos, col, 39–40.

Patrinelis, C. G. 1962. 'Οἱ μεγάλοι ρήτορες Μανουὴλ Κορίνθιος, Ἀντώνιος, Μανουὴλ Γαλησιώτης καὶ ὁ χρόνος τῆς ἀκμῆς τους', *Δελτίον τῆς Ἱστορικῆς καὶ Ἐθνολογικῆς Ἑταιρείας τῆς Ἑλλάδος* 16: 17–38.

Pelagidis, E. 1982. 'Η συνοδικὴ ἀπόφαση γιὰ τὴν ὁριστικὴ «ἀποκατάσταση» τοῦ Μεθοδίου Ἀνθρακίτη', *Ἑλληνικά* 23: 134–46.

Perentidis, S. 1994. *Théodose Zygomalas et sa Paraphrase de la Synopsis minor*. Athens: A. Sakkoulas.

Petsios, K. T. 2003. *Ἡ Περὶ φύσεως συζήτηση στὴ νεοελληνικὴ σκέψη: Ὄψεις τῆς φιλοσοφικῆς διερεύνησης ἀπὸ τὸν 15ο ὡς τὸν 19ο αἰώνα* [2nd edition]. Ioannina: UOI.

Poppi, A. 1991. *Introduzione all'Aristotelismo Padovano* [2nd edition]. Padua: Antenore.

Psimmenos, N. 1988. *Ἡ ἑλληνικὴ φιλοσοφία ἀπὸ τὸ 1453 ὡς τὸ 1821: Ἀνθολογία κειμένων μὲ εἰσαγωγὴ καὶ σχόλια*, vol. I: *Ἡ κυριαρχία τοῦ Ἀριστοτελισμοῦ: Προκορυδαλικὴ καὶ κορυδαλικὴ περίοδος*. Athens: Gnosi.

Rhoby, A. 2009. 'The Letter Network of Ioannes and Theodosios Zygomalas', in S. Perentidis and G. Steiris (eds.), *Ἰωάννης καὶ Θεοδόσιος Ζυγομαλάς*. Athens: Daidalos, 125–52.

Riondato, E. and Poppi, A. (eds.). 2000. *Cesare Cremonini: Aspetti del pensiero e scritti*. Padua: Accademia Galileiana di Scienze Lettere ed Arti.

Risse, W. 1998. *Bibliographia philosophica vetus*, vol. 2: *Logica*. Hildesheim: Georg Olms.

Sakkelion, I. 1890. *Πατμιακὴ Βιβλιοθήκη, ἤτοι ἀναγραφὴ τῶν ἐν τῇ Βιβλιοθήκῃ τῆς κατὰ τὴν νῆσον Πάτμον γεραρᾶς καὶ βασιλικῆς Μονῆς τοῦ ἁγίου Ἀποστόλου καὶ Εὐαγγελιστοῦ Ἰωάννου τοῦ Θεολόγου τεθησαυρισμένων χειρογράφων τευχῶν*. Athens: Alexandros Papageorgiou.

Sathas, K. N. 1870. *Βιογραφικὸν σχεδίασμα περὶ τοῦ πατριάρχου Ἱερεμίου Β΄ (1572–1594)*. Athens: A. Ktenas and S. Oikonomou.

Schmitt, C. 1983. *Aristotle and the Renaissance*. Cambridge, MA and London: Harvard University Press.

Skarveli-Nikolopoulou, A. G. 1994. *Μαθηματάρια τῶν ἑλληνικῶν σχολείων κατὰ τὴν Τουρκοκρατία*. Athens: Syllogos pros diadosin Ofelimon Vivlion.

Steiris, G. 2009. '"We engaged a Master of Philosophy like other Teachers". John and Theodosius Zygomalas and some Philosophical Discussions in the Second Half of the 16th century', in S. Perentidis and G. Steiris (eds.), *Ἰωάννης καὶ Θεοδόσιος Ζυγομαλάς*. Athens: Daidalos, 167–85.

Stergellis, A. P. 1970. *Τὰ δημοσιεύματα τῶν Ἑλλήνων σπουδαστῶν τοῦ πανεπιστημίου τῆς Πάδοβας τὸν 17ο καὶ τὸν 18ο αἰ.* Athens: Philologikos Syllogos 'Parnassos'.

Toufexis, N. 2009. 'Οἱ *Θεματοεπιστολαί* του Θεοδοσίου Ζυγομαλά και η μετάβαση από τη βυζαντινή στην πρώιμη νεοελληνική παράδοση', in S. Perentidis and G. Steiris (eds.), *Ἰωάννης καὶ Θεοδόσιος Ζυγομαλάς*. Athens: Daidalos, 305–40.

Tsiotras, V. 2000. 'The Manuscripts of Theophilos Korydalleus' *Commentaries on Aristotle's Logic*', in E. Riondato and A. Poppi (eds.), *Cesare Cremonini. Aspetti del pensiero e scritti. Atti des Convegno di studio (Padova, 26–27 febbraio 1999)*, vol. 1: *Il pensiero*. Padua: Academia Galileiana di Scienze, Lettere ed Arti in Padova, 219–48.

Tsiotras, V. 2017. 'Τα χειρόγραφα του υπομνήματος του Θεοφίλου Κορυδαλλέως στο *Περὶ ψυχῆς* του Αριστοτέλη. Από την ιστορία της νεοελληνικής εκπαίδευσης (17ος–18ος αι.)', *Ἑλληνικά* 67: 53–83.

Tsirpanlis, Z. N. 1974. 'Η επισκοπή του Κισάμου και η θρησκευτική πολιτική της Βενετίας και του Βατικανού (τέλη 16ου -αρχές 17ου αι.)', in *Πεπραγμένα του Γ' Διεθνούς Κρητολογικού Συνεδρίου (Ρέθυμνον, 18–23 Σεπτεμβρίου 1971)*, vol. 2: *Βυζαντινοί και Μέσοι Χρόνοι*. Athens: 315–32.

Tsirpanlis, Z. N. 1980. *Τὸ Ἑλληνικὸ Κολλέγιο τῆς Ρώμης καὶ οἱ μαθητές του (1576–1700). Συμβολὴ στὴ μελέτη τῆς μορφωτικῆς πολιτικῆς τοῦ Βατικανοῦ*. Thessaloniki: Patriarchiko Idryma Paterikon Meleton.

Tsiter, C. I. 1934. *Τρεῖς μεγάλοι διδάσκαλοι τοῦ Γένους: Ἀναστάσιος Γόρδιος, Χρύσανθος Αἰτωλός, Φραγκίσκος Κόκκος*. Athens: A. A. Papaspyros.

Tsourkas, C. 1967. *Les débuts de l'enseignement philosophique et de la libre pensée dans les Balkans: La vie et l'oeuvre de Théophile Corydalée (1550–1646)* [2nd edition]. Thessaloniki: Institute for Balkan Studies.

Villoslada, R. G. 1954. *Storia del Collegio Romano dal suo inizio (1551) alla soppressione della Campagnia di Gesù*. Rome: Pontifical Gregorian University.

Vittorini, M. 2013. 'Life and Works', in A. D. Conti (ed.), *A Companion to Walter Burley Late Medieval Logician and Metaphysician*. Leiden and Boston: Brill, 15–47.

Wallace, W. A. 1984. *Galileo and His Sources: Heritage of the Collegio Romano in Galileo's Science*. Princeton, NJ: Princeton Legacy Library.

Wartelle, A. 1963. *Inventaire des manuscrits grecs d'Aristote et de ses commentateurs. Contribution à l'histoire du texte d'Aristote*. Paris: Les Belles Lettres.

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Petros Bouras-Vallianatos

Following the publication of the first descriptive catalogue of the Wellcome Greek collection in 2015, I would like to note the following additions and corrections:

MS.MSL.60 (*olim* HH i 17/We 30)

[78r–124v] Τοῦ σοφωτ(ά)τ(ου) (καὶ) λογιωτ(ά)τ(ου) Γαληνοῦ (καὶ) Ἱπποκράτους· Παύλ(ου) (καὶ) Ἀετίου καὶ ἑτέρ(ων) πλήστ(ων) ἰατρ(ῶν) παλαιῶν, inc. Εἰς πρίσμα κοιλίας ὅταν γένηται σκληρή: Λινόκουκον, des. ὅτε ἄδιψος ἔχεις ὡσὶ καρύου ποντικοῦ τὸ μέγεθος: τέλος.

MS.MSL.109 (*olim* MM c 7/Wf 7)

MS.MSL.109 is the second part of an originally single volume. The first part is Oxoniensis Holkhamensis gr. 108.[1] Holkhamensis contains the first eight books of Aetios of Amida's *Tetrabiblos*,[2] and MS.MSL.109 preserves the next seven books (9–15) of Aetios' work.

Handwriting: Nicholas (*RGK* I 330, II 447).

MS.498 (*olim* Nikolsburgensis II.241)

Handwriting: A (ff. 24r *infra*, 24v *infra*, 31r, 32r–41r), B (ff. 23r, 24r *supra*, 24v *supra*, 25r–27v, 31v, 43r–68v).

1 Barbour (1960: 612). A descriptive catalogue of the collection is currently being prepared by Dimitrios Skrekas.

2 Ed. Olivieri (1935–50).

Bibliography

Barbour, R. 1960. 'Summary Description of the Greek Manuscripts from the Library at Holkham Hall', *Bodleian Library Record* 6: 591–613.

Hunger, H. et al. (eds.). 1981–97. *Repertorium der griechischen Kopisten 800-1600*. 3 vols in 9 pts. Vienna: Verlag der Österreichischen Akademie der Wissenschaften [cited with volume no. followed by catalogue no., e.g. *RGK* II 120].

Olivieri, A. (ed.). 1935–50. *Aetii Amideni libri medicinales*. 2 vols. Leipzig and Berlin: In aedibus B. G. Teubneri. [CMG VIII,1–2].

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