Latin Ptolemaic Writings on
Astronomy and Astrology up to AD 1700

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Latin Ptolemaic Writings on Astronomy and Astrology up to AD 1700

A Comprehensive Survey of the Works, Manuscripts and Early Printed Editions

Volume I

David Juste

BREPOLS

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27. Erasmus Reinhold, *Commentum in Almagesti V.12-16* (C.1.28), autograph, 1549 – Berlin, SBPK, lat. fol. 391, s. XVI, f. 173v
28. Ercole Bottrigari, *Mathematicae operationes omnes quae in Magnae Ptolemaei compositionis astronomicae libris XIII continentur* (C.1.31), autograph, 1560 – Bologna, BU, 326-II (213), f. 3v
29. Francesco Maurolico, *Breviarium sive epitome brevissima in Almagestum Ptolemaei* (C.1.32), autograph, 1567 – Paris, BnF, lat. 7471, f. 26r
30. Henry Savile, copy of Theon's commentary on the *Almagest* (C.1.30.3), autograph, 1568 – Oxford, BL, Savile 27, f. 2r
31. Jerónimo Muñoz, copy of Theon's commentary on the *Almagest* (C.1.30.5), autograph, 1582 – Naples, BN, VIII C 33, f. 21r
32. Giulio Angeli da Barga, *Tabulata expositio in Quadripartitum* (C.2.35), probable autograph, *c.* 1583 – Pisa, BU, 232, f. 298r

Preface

This book was prepared from 2014 to 2022 as part of the project Ptolemaeus Arabus et Latinus (PAL). The entries for works, manuscripts and early printed editions were progressively published in our online database (https://ptolemaeus.badw.de) from December 2016 onwards. The entries published here are identical to the online entries, allowing for some editorial variations, such as the use of abbreviations and a different method of cross references. The main elements present in this book and absent from the online version are the Introduction, three Appendices dealing with 'Lost or fictitious Works', 'Rejected Works' and 'Rejected Manuscripts', the plates and the indices.

Over the years, I have incurred more debts than I would be able to acknowledge. I would like to thank first those who have accompanied this work since the beginning and who provided help almost on a daily basis. The first person who comes to mind is Benno van Dalen, who is responsible for the Arabic counterpart of this survey (to be published soon). Benno and I have discussed, probably beyond what was reasonable, all topics, big and small, pertaining to our respective surveys, including, to give but one example, the thorny issue of defining *pseudepigrapha* and commentaries. The structure, content and presentation of this work owe much to our discussions. Stefan Georges's unmatched paleographical expertise saved me from numerous mistakes, especially regarding the date and place of origin of the manuscripts, and his own research on the Latin glosses to the *Almagest* (forthcoming as a monograph in 2026) forced me to reconsider many of my interpretations. My debt to him is apparent throughout. Henry Zepeda was always ready to help with identifying and interpreting mathematical texts, to the extent that my account of the commentaries on the *Almagest* is his work as much as mine. Philipp Nothaft and Emanuele Rovati, both avid users of the online database, drew my attention to new manuscripts, pointed out mistakes and were always keen to discuss specific issues. Charles Burnett and Dag Nikolaus Hasse have assisted in the preparation of this work all along and were always present to answer questions and resolve problems. All the people named above reviewed parts or the whole draft of this work and offered invaluable critical comments. I am also very pleased to acknowledge Claudia Dorl, who ordered reproductions of manuscripts in libraries from all over the world, scanned microfilms, and accepted the thankless task of preparing the indices.

Our research assistants have provided invaluable help in scanning books and articles: Dominik Knaupp, Hayim Malkhasy, Beatriz Alfaro Pérez, Melina Häring and Hanna Reidenbach. Special thanks are due to Dominik Knaupp, who surveyed virtually all catalogues of Latin manuscripts available at the Bayerische

Staatsbibliothek in Munich in search of Ptolemy and Ptolemaic works. I owe him the discovery of many manuscripts and texts that would be missing from this survey without his contribution. Hayim Malkhasy scanned hundreds of microfilms, mainly from Menso Folkerts's collection of over 5000 scientific manuscripts (now held at the Monumenta Germaniae Historica in Munich), but also from Fritz Pedersen's collection of some 200 manuscripts of the Toledan Tables (kindly put at our disposal by Philipp Nothaft) and from other collections.

Many colleagues and friends contributed to this work in various ways, by answering questions, commenting on my entries and sharing their expertise: José Bellver, Jean-Patrice Boudet, José Chabás†, François Charette, Albert Derolez, Isabelle Draelants, Colette Dufossé, Consuelo Dutschke, Seb Falk, Thomas Falmagne, Luca Farina, Irina Galynina, Niran Garshtein, Klaus Geus, Victor Gysembergh, Stephan Heilen, Jan Hogendijk, Paul Hullmeine, Richard Kremer, Johannes Lerch, Lukáš Lička, Nadine Löhr, Alfred Lohr, Ivan Malara, Craig Martin, Laure Miolo, Stefan Müller, Pouyan Rezvani, Michele Rinaldi, Shlomo Sela†, Michael Shank, Mikhail Silian, Carlos Steel, Ron Thomson and Luigi Valletta. I must also thank the visitors (sometimes anonymous) to our website, who shared feedback and spotted mistakes or omissions. Among these, I am most grateful to four people who called my attention to manuscripts and fragments which I would never have become aware of otherwise: Ian Cornelius (Chicago, LUC, UA2020.06), William Duba (Paris, BnF, lat. 16659, and Salisbury, CL, H.1.29 + ZC2.8.10), Matthias Eifler (Mühlhausen, SA, 60/2) and Judit Lauf (Vác, EK, 708.012/Fragm. 2).

Last, but certainly not least, we owe special gratitude to the 'old team' of historians of medieval science in Munich, who played an instrumental role in the creation of PAL: Menso Folkerts, Paul Kunitzsch (d. 2020), Uta Lindgren (d. 2017) and Richard Lorch (d. 2021). All four of them had retired when the project started in 2013, but they rarely missed our regular team lunches at our favourite Indian restaurant, Goa. Everyone remembers Paul Kunitzsch for his unwavering passion for the *Almagest* and for his equally unwavering enthusiasm for deciphering difficult Arabic texts. Menso Folkerts continually offered support, encouragement and advice, and he generously shared with us several unpublished resources which turned out to be vital for the present book (see p. 17 n. 31).

I would like to express my warmest thanks to everyone. It goes without saying that I alone am responsible for any errors.

Abbreviations

Symbols and common notation

→	denotes a Ptolemaic manuscript (described in Part III). This symbol may be omitted in obvious cases.
†	destroyed manuscript
acc.	according to
add.	added
attr.	attributed to
comm.	commentary/commented by
corr. ex	corrected from
corr. in	corrected into
ed.	edition/edited by
or.	origin
prov.	provenance
s. XV	15th century
s. XV^{1}	15th century, first half
s. XV^{2}	15th century, second half
s. XV^{in}	15th century, beginning (1401–1425)
s. XV^{ex}	15th century, end (1476–1500)
s. XV^{med}	15th century, middle (1426–1475)
sus.	written above the line
tr.	translation/translated by
v.	verbum/verba (used in connection with the *Centiloquium*)

Studies and journal titles

Agrimi 1976	J. Agrimi, *Tecnica e scienza nella cultura medievale. Inventario dei manoscritti relativi alla scienza e alla tecnica medievale (secc. XI–XV). Biblioteche di Lombardia*, Firenze, 1976.
AHDLMA	*Archives d'Histoire Doctrinale et Littéraire du Moyen Âge*
AHES	*Archive for History of Exact Sciences*
AIHS	*Archives Internationales d'Histoire des Sciences*

ALC	*Aristoteles Latinus. Codices*, I.1: G. Lacombe, *Pars prior*, Roma, 1939; I.2: L. Minio-Paluello, *Pars posterior*, Cambridge, 1955; I.2a: L. Minio-Paluello, *Supplementa altera*, Bruges-Paris, 1961.
d'Alverny 1994	M.-T. d'Alverny, *Avicenna Latinus. Codices* (with *Addenda* by S. Van Riet and P. Jodogne), Louvain-la-Neuve-Leiden, 1994.
AS	*Annals of Science*
ASP	*Arabic Sciences and Philosophy*
Bandini 1774–1778	A. M. Bandini, *Catalogus Codicum Latinorum Bibliothecae Mediceae Laurentianae*, Firenze, II (1775), III (1776), IV (1777).
Barker-Benfield 2008	B. C. Barker-Benfield, *St Augustine's Abbey, Canterbury*, London, 2008, 2 vols.
BC	*Bruniana & Campanelliana*
Benjamin/Toomer 1971	F. S. Benjamin, G. J. Toomer, *Campanus of Novara and Medieval Planetary Theory, Theorica planetarum*, Madison-London, 1971.
Birkenmajer 1924	L. A. Birkenmajer, *Stromata Copernicana. Studia, poszukiwania i materjały biograficzne*, Kraków, 1924.
Birkenmajer 1970	A. Birkenmajer, *Études d'histoire des sciences et de la philosophie du Moyen Âge*, Wrocław, 1970.
Björnbo 1902	A. A. Björnbo, *Studien über Menelaos' Sphärik. Beitrage zur Geschichte der Sphärik und Trigonometrie der Griechen*, Leipzig, 1902.
Björnbo 1909	A. A. Björnbo, '*Die mittelalterlichen lateinischen Übersetzungen aus dem Griechischen auf dem Gebiete der mathematischen Wissenschaften*', in *Festschrift Moritz Cantor anläßlich seines achtzigsten Geburtstages gewidnet von Freuden und Verehrern*, Leipzig, 1909, 93–102 [= *Archiv für Geschichte der Naturwissenschaften und der Technik* 1 (1909), 385–94].
Björnbo 1976	A. A. Björnbo, *Die mathematischen S. Marcohandschriften in Florenz. Nuova edizione a cura di Gian Carlo Garfagnini con una premessa di Eugenio Garin*, Pisa, 1976.
Björnbo/Vogl 1912	A. A. Björnbo, S. Vogl, *Alkindi, Tideus und Pseudo-Euklid. Drei optische Werke*, Leipzig-Berlin, 1912.
BJHS	*The British Journal for the History of Science*
Black 1845	W. R. Black, *A Descriptive and Critical Catalogue of the Manuscripts Bequeathed unto the University of Oxford by Elias Ashmole*, Oxford, 1845.

Blume/Haffner 2012–2016	D. Blume, M. Haffner, W. Metzger, *Sternbilder des Mittelalters. Der gemalte Himmel zwischen Wissenschaft und Phantasie*, Berlin, I: *800–1200*, 2012, 2 vols; II: *1200–1500*, 2016, 3 vols.
Bohak/Burnett 2021	G. Bohak, C. Burnett, *Thābit ibn Qurra* On Talismans *and Ps.-Ptolemy* On Images 1–9, *Together with the* Liber prestigiorum Thebidis *of Adelard of Bath*, Firenze, 2021.
Boudet 2014	J.-P. Boudet, 'Astrology Between Rational Science and Divine Inspiration. The Pseudo-Ptolemy's *Centiloquium*', in *Dialogues among Books in Medieval Western Magic and Divination*, eds S. Rapisarda, E. Niblaeus, Firenze, 2014, 47–73.
Boudet 2014a	J.-P. Boudet, 'Nature et contre-nature dans l'astrologie médiévale. Le cas du *Centiloquium* du Pseudo-Ptolémée', in *La nature comme source de la morale au Moyen Âge*, ed. M. van der Lugt, Firenze, 2014, 383–410.
Boudet 2017	J.-P. Boudet, 'Causalité et signification dans le *Centiloquium* du pseudo-Ptolémée', in *Orbis disciplinae. Liber amicorum Patrick Gautier Dalché*, eds N. Bouloux, A. Dan, G. Tolias, Turnhout, 2017, 607–24.
Boudet 2019	J.-P. Boudet, 'Naissance et conception: autour de la proposition 51 du *Centiloquium* attribué à Ptolémée', in *De l'homme, de la nature et du monde. Mélanges d'histoire des sciences médiévales offerts à Danielle Jacquart*, Genève, 2019, 165–78.
Boudet 2020	J.-P. Boudet, 'The Medieval Latin Versions of Pseudo-Ptolemy's *Centiloquium*: A Survey', in Juste/van Dalen 2020, 283–304.
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Burnett 2009	C. Burnett, *Arabic into Latin in the Middle Ages. The Translators and their Intellectual and Social Context*, Farnham-Burlington, 2009.

Burnett 2024	C. Burnett, 'Ptolemy's Differentiation between Astronomy and Astrology in the Greek-Arabic-Latin Tradition', *Cahiers de Recherches Médiévales et Humanistes* 47 (2024), 373–403.
Burnett/Hogendijk 2004	*Studies in the History of the Exact Sciences in Honour of David Pingree*, eds C. Burnett, J. P. Hogendijk, K. Plofker, M. Yano, Leiden-Boston, 2004.
Busard/Folkerts 1992	H. L. L. Busard, M. Folkerts, *Robert of Chester's (?) Redaction of Euclid's* Elements*, the so-Called Adelard II Version*, Basel-Boston-Berlin, 1992, 2 vols.
Caballero-Sánchez 2013	R. Caballero-Sánchez, 'Historia del texto del *Comentario Anónimo* al *Tetrabiblos* de Tolomeo', *MHNH* 13 (2013), 77–197.
Calcagno 2021	A. Calcagno, *El libro delle Cento Parole di Ptholommeo. Saggio di edizione critica del volgarizzamento fiorentino del* Centiloquium *pseudo-tolemaico*, Milano, 2021.
Carmody 1956	F. J. Carmody, *Arabic Astronomical and Astrological Sciences in Latin Translation. A Critical Bibliography*, Berkeley-Los Angeles, 1956.
CBCM	*Codices Boethiani. A Conspectus of Manuscripts of the Works of Boethius*, I: *Great Britain and the Republic of Northern Ireland*, eds M. T. Gibson, L. Smith, London, 1995; III: *Italy and the Vatican City*, eds M. Passalacqua, L. Smith, London-Torino, 2001.
CCLB	*Catalogus Codicum Latinorum Bibliothecae Regiae Monacensis*, München, 1868–1881, I.1: C. Halm, G. Laubmann, *Clm 1–2329*, 1868; I.2: C. Halm, G. Laubmann, *Clm 2501–5250*, 1871; I.3: C. Halm, G. Thomas, G. Meyer, *Clm 5251–8100*, 1873; II.1: C. Halm, G. Meyer, *Clm 8101–10930*, 1874; II.2: C. Halm, F. Keinz, G. Meyer, G. Thomas, *Clm 11001–15028*, 1876; II.3: C. Halm, F. Keinz, G. Meyer, G. Thomas, *Clm 15121–21313*, 1878; II.4: C. Halm, G. Meyer, *Clm 21406–27268*, 1881.
CCMB	*Catalogus codicum manuscriptorum Bibliothecae Regiae*, Paris, II: *Codices manuscriptos Graecos*, 1740; III: *Cod. Latini 4794–7225*, 1744; IV: *Cod. Latini 7226–8822*, 1744.
CCMM	M. Kowalczyk et al., *Catalogus codicum manuscriptorum Medii Aevi Latinorum qui in Bibliotheca Jagellonica Cracoviae asservantur*, Wrocław, III: *Numeros continens inde a 445 usque ad 563*, 1984; IV: *Numeros continens inde a 564 usque ad 667*, 1988; VI: *Numeros continens inde a 772 usque ad 1190*, 1996.

CGMB	*Catalogue général des manuscrits des bibliothèques publiques de France. Départements*, Paris, IV (1872); V (1889); IX (1888); X (1889); XI (1890); XVII, Paris (1891); XXVII (1894); XXX (1900).
CHMB	*A Catalogue of the Harleian Manuscripts in the British Museum*, London, 1808–1812, 4 vols.
CIMAGL	*Cahiers de l'Institut du Moyen-Âge Grec et Latin*
Clagett 1964–1984	M. Clagett, *Archimedes in the Middles Ages*, Madison-Philadelphia, 1964–1984, 5 parts in 10 vols (Part I, 1964; II, 1976; IV, 1980; V, 1984).
CLMB	*Catalogus librorum manuscriptorum bibliothecae Sloananiae/ Catalogue of Sloane Manuscripts*, s.l.n.d., 19 vols (handwritten catalogue, except the first volume, typed).
CMFB	*Catalogo di manoscritti filosofici nelle biblioteche italiane,* Firenze, IV: G. Avarucci, D. Frioli, G. C. Garfagnini, G. Pomaro, P. Rossi, A. Velli, Cesena, Fabriano, *Firenze, Grottaferrata, Parma*, 1982; VI: G. M. Cao, M. Cortesi, M. Curandai, E. Di Mattia, G. Italiani, F. W. Lupi, P. Rossi, A. M. Velli, S. Zamponi, *Atri, Bergamo, Cosenza, Milano, Perugia, Pistoia, Roma, Siena*, 1992; VIII: G. M. Cao, T. Catallo, M. Curandai, E. Di Mattia, P. E. Fornaciari, E. Peruzzi, F. Santi, *Firenze, l'Aquila, Livorno, Prato, Siena, Verona*, 1996; IX: G. Pomaro, *Firenze*, 1999.
CMML	*Catalogue of Medieval Manuscripts of Latin Commentaries on Aristotle in British Libraries*, I: R. M. Thomson, *Oxford*, Turnhout, 2011; II: R. M. Thomson, *Cambridge*, Turnhout, 2013; III: P. Robinson, *Aberdeen-York*, Turnhout, 2020.
CMPL	*A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge*, Cambridge, II (1857); III (1858); IV (1861).
Coxe 1852	H. O. Coxe, *Catalogus codicum qui in collegiis aulisque Oxoniensibus hodie adversantur*, Oxford, 1852, 2 vols.
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De Ricci 1935–1937	S. De Ricci, *Census of Medieval and Renaissance Manuscripts in the United States and Canada*, New York, 1935–1937, 2 vols.
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Gabriel 1968	A. L. Gabriel, *A Summary Catalogue of Microfilms of One Thousand Scientific Manuscripts in the Ambrosiana Library, Milan*, Notre Dame, 1968.
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Haskins 1927	C. H. Haskins, *Studies in the History of Mediaeval Science*, Cambridge, 1927 (2nd ed.).

Heiberg 1907	J. L. Heiberg, *Claudii Ptolemaei opera quae exstant omnia*, II: *Opera astronomica minora*, Leipzig, 1907.
Hernández/Linehan 2004	F. J. Hernández, P. Linehan, *The Mozarabic Cardinal. The Life and Times of Gonzalo Pérez Gudiel*, Firenze, 2004.
Hughes 1981	B. B. Hughes, *Jordanus de Nemore: De numeris datis*, Berkeley-Los Angeles-London, 1981.
ICMBA	*Inventario Ceruti dei manoscritti della Biblioteca Ambrosiana*, ed. A. Paredi, Trezzano, I (1973); II (1975); III (1977); IV (1978); V (1979) (handwritten catalogue originally compiled in 33 vols between 1863 and 1911).
ICMBB	*Inventarium codicum manuscriptorum Bibliothecae Barberinae* (handwritten catalogue).
IGMB	*Inventario general de manuscritos de la Biblioteca Nacional*, XIV, Madrid, 2000.
ILLM	*Inventarium librorum Latinorum manuscriptorum Bibliothecae Vaticanae* (handwritten catalogue).
IMCS	*Inventario dei MSS dei Conventi Soppressi* (handwritten catalogue).
IMLB	*Inventarium manuscriptorum Latinorum Bibliothecae Palatinae* (handwritten catalogue).
JHA	*Journal for the History of Astronomy*
Jones 2010	*Ptolemy in Perspective. Use and Criticism of His Work from Antiquity to the Nineteenth Century*, ed. A. Jones, Dordrecht-Heidelberg-London-New York, 2010.
Juste 2007	D. Juste, *Les* Alchandreana *primitifs. Étude sur les plus anciens traités astrologiques latins d'origine arabe (X^e^ siècle)*, Leiden-Boston, 2007.
Juste 2011–2015	D. Juste, *Catalogus Codicum Astrologorum Latinorum*, Paris, I: *Les manuscrits astrologiques latins conservés à la Bayerische Staatsbibliothek de Munich*, 2011; II: *Les manuscrits astrologiques latins conservés à la Bibliothèque nationale de France à Paris*, 2015.
Juste/van Dalen 2020	*Ptolemy's Science of the Stars in the Middle Ages*, eds D. Juste, B. van Dalen, D. N. Hasse, C. Burnett, Turnhout, 2020.
JWCI	*Journal of the Warburg and Courtauld Institutes*
Kaliszuk/Pieniądz 2019	*Clavis scriptorum et operum Medii Aevi Poloniae*, eds J. Kaliszuk, A. Pieniądz, P. Węcowski, K. Skwierczyński, Kraków, 2019.

KHAB	*Kataloge der Herzog August Bibliothek Wolfenbüttel*, I: O. von Heinemann, *Die Helmstedter Handschriften*, 1: *Codex Guelferbytanus 1 Helmstadiensis bis 500 Helmstadiensis*, Frankfurt/Main, 1963 (originally published 1884); 2: *Codex Guelferbytanus 501 Helmstadiensis bis 1000 Helmstadiensis*, Frankfurt/Main, 1965 (originally published 1886); VI: O. von Heinemann, *Die Augusteischen Handschriften*, 3: *Codex Guelferbytanus 32.7 Augusteus 2º bis 77.3 Augusteus 2º*, Frankfurt/Main, 1966 (originally published 1898); VIII: O. von Heinemann, *Die Augusteischen Handschriften*, 5: *Codex Guelferbytanus 34.1 Aug. 4º bis 117 Augusteus 4º*, Frankfurt/Main, 1966 (originally published 1903); IX: F. Koehler, G. Milchsack, *Die Gudischen Handschriften: Codices Guelferbytani Gudiani graeci und Gudiani latini*, Frankfurt/Main, 1966 (originally published 1913).
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Kunitzsch 1974	P. Kunitzsch, *Der Almagest – Die Syntaxis Mathematica des Claudius Ptolemäus in arabisch-lateinischer Überlieferung*, Wiesbaden, 1974.
Kunitzsch 1986–1991	P. Kunitzsch, *Der Sternkatalog des Almagest. Die arabisch-mittelalterliche Tradition*, 3 vols, Wiesbaden, 1986–1991 (vol. II, 1990).
Kunitzsch 1990	P. Kunitzsch, 'Die Überlieferung des Almagest, griechisch-arabisch-lateinisch', in *Lingua restituta Orientalis. Festgabe für Julius Assfalg*, ed. M. Görg, Wiesbaden, 1990, 203–10.
Kunitzsch 2004	P. Kunitzsch, *Stars and Numbers. Astronomy and Mathematics in the Medieval Arab and Western Worlds*, Aldershot, 2004.
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Lemay 1995–1996	R. Lemay, *Abū Maʿšar al-Balḫī [Albumasar]: Liber introductorii maioris ad scientiam judiciorum astrorum*, Napoli, 1995–1996, 9 vols.
Lemay 1997	R. Lemay, 'Acquis de la tradition scientifique grecque confrontés aux réalités des civilisations médiévales. Cas particulier de l'astrologie-cosmologie', in *Perspectives arabes et médiévales sur la tradition scientifique et philosophique grecque. Actes du colloque de la SIHSPAI (Société internationale d'histoire des sciences et de la philosophie arabes et islamiques), Paris, 31 mars – 3 avril 1993*, eds A. Hasnawi, A. Elamrani-Jamal, M. Aouad, Leuven-Paris, 1997, 137–71.
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Lorch 1995	R. Lorch, *Arabic Mathematical Sciences. Instruments, Texts, Transmission*, Farnham-Burlington, 1995.
Lohr 2025	A. Lohr, *Opera de computo a tempore post Gerlandum usque ad Iohannem de Sacrobosco*, Turnhout, 2025.
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Introduction

1. This book

The importance of Ptolemy (Claudius Ptolemaeus, *c.* 100–170 AD) in the history of Western science cannot be overestimated. For some 1500 years, he was considered the foremost authority on mathematical astronomy and horoscopic astrology in all societies that appropriated Greek learning, including the Islamic world and Latin Europe. Our present knowledge of Ptolemy's literary tradition within these civilisations is however far from adequate. To state it briefly, Ptolemy's works in Arabic and Latin, whether originals, works believed to be by him, commentaries and other texts directly or indirectly based on him, are for the most part unavailable in a modern edition and their manuscripts have never been explored in any systematic way. For the Latin world, our principal resource remains Francis J. Carmody's *Arabic Astronomical and Astrological Sciences in Latin Translation. A Critical Bibliography*, published in 1956 [Carmody 1956], where seven pages are devoted to Ptolemy (pp. 15–21), listing 48 works (including 38 dubious works) and about 40 manuscripts. Still in 1974, as he was reviewing the Latin tradition of Ptolemy's greatest work, the *Almagest*, Olaf Pedersen wrote: 'in the present state of Mediaeval studies it is impossible to arrive at even an approximate survey of the whole field. Not even a check list of the extant MSS has been published.'[1] Even though significant scholarship has been produced since, including on the *Almagest*, Pedersen's statement remains true practically for the entire Ptolemaic tradition in Latin (and in Arabic, for that matter). The present book aims at being a first step in filling the gap by offering a full survey of the Latin Ptolemaic works in astronomy and astrology, together with a catalogue of their manuscripts and early printed editions up to AD 1700. The Arabic tradition will be the subject of a separate volume currently being prepared under Benno van Dalen's supervision.

2. The *Corpus Ptolemaicum*

In accordance with the outline of the project Ptolemaeus Arabus et Latinus,[2] the *Corpus Ptolemaicum* includes three categories of writings: Ptolemy's authentic works (siglum A), the *pseudepigrapha* or works falsely attributed to Ptolemy (siglum

[1] Pedersen 2011 (first published 1974), 17.

[2] See 'Introduction' in Juste/van Dalen 2020, 1–10, and the project outline at https://ptolemaeus.badw.de/project.

B), and the commentaries (siglum C).[3] The works under consideration deal with what medieval scholars coined 'the science of the stars' (*scientia astrorum* or *scientia stellarum*), which included what we call today astronomy and astrology.[4] Ptolemy produced two foundational texts in these disciplines, the *Almagest* and the *Tetrabiblos*. The *Almagest*, in 13 books, is generally considered the culmination of Greek astronomy and the single most important astronomical work until Copernicus's *De revolutionibus orbium coelestium* (1543). It provides comprehensive mathematical models explaining all celestial movements in a geocentric universe and offers all the necessary data to calculate the positions of the seven planets (Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn) for any time, past, present and future, and for any geographical location. The *Tetrabiblos* (*Quadripartitum* in Latin), in four books, is often described as the most influential astrological text ever written. It contains a philosophical justification of astrology, surveys the essential astrological doctrines and provides rules to interpret mundane and individual horoscopes.

To these two works, medieval scholars would add a third one, the *Centiloquium* (*Karpos*, *Kitāb al-Thamara*), a collection of one hundred astrological aphorisms, whose popularity in Western Europe largely outweighed that of either the *Almagest* or the *Quadripartitum*. We know today that the *Centiloquium* was not written by Ptolemy, but virtually no one questioned its authorship until Franz Boll in 1894.[5] For this reason, the *Centiloquium* cannot be dissociated from the *Corpus Ptolemaicum*. These three texts (the *Almagest*, the *Quadripartitum* and the *Centiloquium*) constitute the backbone of the Ptolemaic tradition in Latin by all measures, whether we consider the number of surviving translations, the number of extant witnesses (manuscripts and early printed editions) of these translations, or the number of commentaries composed thereupon. The relevant figures are provided in Tables 1 and 2.

[3] See also 'lost or fictitious works' (siglum L) in Appendix I and 'rejected works' (siglum R) in Appendix II.

[4] The other Ptolemaic disciplines, that is, geography, optics and harmonics, have not been taken into account here. For these in the Latin tradition, see P. Gautier Dalché, *La Géographie de Ptolémée en Occident (IV^e–XVI^e siècle)*, Turnhout, 2009; A. Lejeune, *L'optique de Claude Ptolémée dans la version latine d'après l'arabe de l'émir Eugène de Sicile*, Leiden-New York, 1989; A. M. Smith, *Ptolemy's Theory of Visual Perception: An English Translation of the Optics with Introduction and Commentary*, Philadelphia, 1996, esp. 5–14 and 58–61; J. Solomon, *Ptolemy Harmonics. Translation and Commentary*, Leiden-Boston-Köln, 2000, xxiii–xxv.

[5] See B.1. One exception is Girolamo Cardano, who, in his commentary on the *Quadripartitum* published in 1554 (C.2.24), denied Ptolemy's authorship on the *Centiloquium* on doctrinal grounds, see A. Grafton, *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer*, Cambridge (Mass.), 1999, 137; F. Martorello, G. Bezza, *Aḥmad ibn Yūsuf ibn al-Dāya: Commento al Centiloquio tolemaico*, Milano-Udine, 2013, 9–10. Cardano's opinion, however, does not seem to have affected Ptolemaic studies and the *Centiloquium* continued to be printed along with the *Quadripartitum* until well into the seventeenth century.

The *Corpus Ptolemaicum*, however, is not limited to these three texts. Ptolemy produced several 'minor' astronomical and astrological works which also survive in Latin: the *Planetary Hypotheses*, the *Phaseis*, the *Analemma*, the *Planispherium* and the *Handy Tables*.[6] Furthermore, besides the *Centiloquium*, there are 17 other works which circulated under Ptolemy's name, dealing with astronomy, astrology, astrometeorology, astral magic and divination. Last but not least, all these works gave rise to over 100 Latin commentaries, which are also part of the present enquiry.

The *Corpus Ptolemaicum* so outlined comprises at present 180 Latin items, whose arrangement is summarised in Table 1 (the sigla are those used throughout this study).

A	Authentic works		# translations / works
	A.1	*Almagest*	9
	A.2	*Quadripartitum*	13
	A.3	*Planetary Hypotheses*	3
	A.4	*Phaseis*	2
	A.5	*Analemma*	1
	A.6	*Planispherium*	2
	A.7	*Handy Tables*	1
B	*Pseudepigrapha*		
	B.1	*Centiloquium*	10
	B.2	Astronomy	1
	B.3–11	Astrology	9
	B.12–13	Astrometeorology	2
	B.14–16	Astral magic	3
	B.17–18	Divination	2
C	Commentaries		
	C.1	*Almagest*	44 (incl. 9 tr. of C.1.30)
	C.2	*Quadripartitum*	44 (incl. 2 tr. of each C.2.12 and C.2.25)
	C.3	*Centiloquium*	26
	C.4	Others	8

Table 1: The *Corpus Ptolemaicum*

[6] I do not count here the *Meteoroscope* (A.8), which does not survive in Latin as such.

3. Categories defined

3.1. Authentic works

The corpus of Ptolemy's original works has been established with a good degree of certainty[7] and the authenticity of the seven works included here has never been seriously doubted. The *Preceptum canonis Ptolomei* (A.7.1) derives only indirectly from the *Handy Tables* (A.7), but it was decided to keep this text in category A. The Latin translations of the *Analemma* (A.5) and the *Planispherium* (A.6) are especially valuable, because these two texts are for the most part lost in Greek and survive in Latin only for the former and in both Arabic and Latin for the latter.

3.2. *Pseudepigrapha*

Simply put, a *pseudepigraphon* is a work falsely attributed to an author. However, even if we restrict ourselves to astronomy/astrology, over 70 Latin texts were ascribed to Ptolemy for one reason or another and, as it will become evident, not all of them can be counted as *pseudepigrapha*. The 18 works retained here are those whose attribution to Ptolemy is consistent and unambiguous in the manuscripts. Works that do not qualify as *pseudepigrapha* ('pseudo-*pseudepigrapha*', as it were) are listed in the section 'Rejected works' (siglum R) in Appendix II. These rejected works fall into six categories:

1. Works attributed to Ptolemy in only one or in a small minority of manuscripts. This is the case for Albumasar's (?) *Liber similitudinum* (R.38), Azareus's *De lapidibus* (R.41), Bethen's *Centiloquium* (R.11), the *Capitula Almansoris* (R.12), Cristannus de Prachaticz's *Usus astrolabii* (R.8) and *Compositio astrolabii* (R.14), the *De utilitatibus astrolabii* (R.52), Gergis's *De significatione septem planetarum in domibus* (R.39), Hermes/Enoch's *Liber imaginum signorum* (R.32), the *Liber Arzachelis introductorius ad librum iudiciorum Arabum* (R.42), the *Liber novem iudicum* (R.34 and R.37), Martianus Capella's *De nuptiis Mercurii et Philologiae* (R.29), Pseudo-Messahallah's *De compositione astrolabii* (R.5), Prophatius Judeus's *De aspectibus Lune ad alios planetas* (R.25), Thebit Bencora's *Liber prestigiorum* (R.6), the so-called canons Cb of the Toledan Tables (R.10), Zael's *De electionibus* (R.33) and *Liber iudiciorum* (R.36), and the less familiar anonymous texts R.20, R.26–27, R.40 and R.55.
2. Works attributed to Ptolemy by a later scribe, a Renaissance editor or a modern historian, with no adequate support in the manuscripts: R.9, R.13, R.15–16, R.18–19, R.21–23, R.31 and R.51.

[7] A. Jones, 'The Ancient Ptolemy', in Juste/van Dalen 2020, 13–34.

3. Works said to have been written 'according to Ptolemy' ('secundum Ptolomeum') or 'transmitted by Ptolemy' ('traditum a Ptolomeo') and other such expressions which, in fact, make it manifest that Ptolemy is not the author (the *Almagest*, the *Quadripartitum* and the *Centiloquium* are not said to be 'according to Ptolemy' or 'transmitted by Ptolemy'): R.2–3, R.7, R.28, R.30 and R.47.
4. Works discussing doctrines or instruments by Ptolemy or said to be by Ptolemy, but where the work itself is not by or attributed to Ptolemy: R.4, R.45–46, R.48–49 and R.54. On this point, see also 3.3 below, on the commentaries.
5. Other works, whose rejection is self-evident and justified *in loco*: R.1, R.43–44, R.50, R.53 and R.56.
6. A special case has been made for two works which are consistently and unambiguously attributed to Ptolemy in the manuscripts, but which are by a different and clearly identified classical author, namely Euclid's *Phaenomena* in its earliest Latin translation (R.17) and Geminus of Rhodes's *Elementa astronomie* (R.24 and R.35). While these two works fulfil all the conditions for belonging to the category of Ptolemaic *pseudepigrapha*, it was decided not to include them, as they stem from a well-known scholar, to whose authority they should be restored. Full lists of manuscripts of the works in question are however provided in Appendix II.

3.3. Commentaries

Commentaries are understood here in a broad sense, so as to include not only proper commentaries and expositions, but also epitomes, summaries, abridgements, paraphrases, reworkings, critiques, university lectures, etc., in fact any text that derives its substance primarily and explicitly from one of the works of the *Corpus Ptolemaicum*.[8] The terms 'primarily' and 'explicitly' are important here, because, from the twelfth to the late sixteenth century, Latin mathematical astronomy was practically synonymous with Ptolemaic astronomy, so much so that most of the astronomical production from that period could justifiably be considered part of

[8] They comprise not only commentaries originally composed in Latin, but also Greek and Arabic commentaries translated into Latin. The translations include Thebit Bencora's *De hiis que indigent expositione antequam legatur Almagesti* (C.1.1), Geber's *Liber super Almagesti* (C.1.2), Averroes's *Gebri Hispalensis reprehensiones et correctiones in Ptolemei Magna compositione* (C.1.18), Theon of Alexandria's *Commentary on the Almagest* (C.1.30), Haly Abenrudian's *Glosa super Quadripartito Tholomei* (C.2.2), the (Greek) *Anonymous Commentary on the Tetrabiblos* (C.2.12), Isaac Argyros's *Paraphrasis in Anonymum commentum in Quadripartitum* (C.2.16), Pseudo-Porphyry's *Introduction to the Tetrabiblos* (C.2.25), Proclus's (?) *Paraphrasis in quatuor Ptolemaei libros De siderum effectionibus* (C.2.40), Abuiafar Hamet filius Joseph's *Commentary on the Centiloquium* (C.3.1) and Maslama's *Note et additiones in Planispherium* (C.4.4).

the *Corpus Ptolemaicum*.[9] Certain works often presented as digests of the *Almagest*, like Alfraganus's (al-Farghānī) *De scientia astrorum* or the various versions of the '*Theorica planetarum*', have thus been rejected. These works cover mathematical astronomy more or less comprehensively and their content inevitably intersects with the *Almagest* to a large extent, but they do not present themselves as based on the *Almagest* (or on any other work by Ptolemy) and they include material not found in the *Almagest*. Likewise, Henry of Langenstein's *De reprobatione eccentricorum et epiciclorum*, which has been described as an 'objection to Ptolemy', was not included, insofar as Henry of Langenstein criticises an astronomical construct (epicycles and eccentrics) in general rather than Ptolemy's treatment of it in particular.[10]

Another excluded category are the anthologies, *florilegia*, compilations and other such texts where Ptolemy's opinions on specific topics are reported or discussed along with other authors' opinions. A good example are the sixteenth- and seventeenth-century discussions of the system of the world, in which Ptolemy, Copernicus and Tycho Brahe are compared.

A more problematic category of writings are the glosses found in the margins of the manuscripts. As a general rule, it was decided to exclude them from the present survey, except in a few cases where it is clear that we are dealing with a formal commentary (for example, when it includes a proper preface) or with university lectures. Examples of the former are Conrad Heingarter's marginal commentaries C.2.10, C.3.15 and C.4.7. Reports of university lectures in the form of glosses seem to have been standard at the University of Cracow between *c.* 1450 and *c.* 1550 (see, for instance, C.2.6, C.2.13, C.3.9 and C.3.20). Be that as it may, glosses remain often difficult to characterise and the dividing line between 'simple' glosses and marginal commentaries is somewhat arbitrary.[11] Glosses, however, are not left behind, for their presence is always indicated in the catalogue of manuscripts

[9] Note that the same does not hold for astrology, for 'mathematical' or 'horoscopic' astrology does not equate with Ptolemaic astrology, which was in several, sometimes fundamental, respects different from the rest of Hellenistic astrology and from Arabic astrology. To give but one example, the twelve houses, which represent one of the cornerstones of astrological expertise from Hellenistic times to the seventeenth century, are almost completely absent from the *Tetrabiblos*.

[10] C. Kren, 'A Medieval Objection to "Ptolemy"', *BJHS* 4 (1969), 378–93 (Kren, 378, notes that Henry of Langenstein 'gives the impression that he was not especially familiar with the *Almagest*'). The same goes for Andrea Summario's *Motus stellarum an sit scibiis nescio...*, cf. M. Pastore Stocchi, 'Il trattatello trecentesco di Andrea Summario sugli errori dell'astronomia tolemaica. Introduzione, testo, traduzione e commento', *Atti dell'Istituto Veneto di Scienze, Lettere ed Arti – Classe di scienze morali, lettere ed arti* 174 (2015–2016), 175–224.

[11] Two borderline cases which were were rejected after hesitation are the glosses on the *Quadripartitum* in MS →Cracow, BJ, 1862 and the glosses on the *Centiloquium* in MS →Cracow, BJ, 2490.

and they will be the subject of dedicated studies as part of the project Ptolemaeus Arabus et Latinus.[12]

4. The Latin Ptolemaic tradition in one glance

4.1. The earliest texts

The period covered here spans from the tenth to the seventeenth century. The long gap between Ptolemy's lifetime and the appearance of the first Latin texts is explained by the fact that Ptolemy's works do not appear to have been translated into Latin nor commented upon by Latin authors in late Antiquity and in the early Middle Ages. A possible exception is Boethius (d. 525/6), who is credited by his contemporary Cassiodorus with a translation of 'Ptolemy's astronomy' (the *Almagest*?), but this translation, if it ever existed, left no traces.[13] From late Antiquity to the twelfth century, Latin astronomy was essentially represented by the encyclopedic works of Pliny, Calcidius, Macrobius, Martianus Capella, Isidore of Seville and Bede, together with their Carolingian commentators, and horoscopic astrology had almost completely vanished from sight.[14] Ptolemy was known by name and reputation, but no early medieval scholar seems to have had access, even indirectly, to his works.

This situation changed towards the end of the tenth or the beginning of the eleventh century, when the *Preceptum canonis Ptolomei* (A.7.1) made its first appearance at the monastery of Fleury (Saint-Benoît-sur-Loire) or, possibly, in England, in what is today MS London, BL, Harley 2506 [Plate 1]. This event marks the starting point of Ptolemy's documented history in the Latin world. At about the same time, the astrolabe began to circulate in Europe, together with a series of texts explaining its construction and uses at least partly translated and adapted from Arabic. Sections — and, occasionally, entire texts — of this corpus were ascribed to Ptolemy[15] and one of the manuscripts also preserves two short passages from the *Planispherium*

[12] See already Zepeda 2020; S. Falk, 'Understanding the Length of Life: The Glosses on Plato of Tivoli's Translation of the *Quadripartitum*', *SCIAMVS* 22 (2022), 195–251; and the important volume in preparation by Stefan Georges (Georges (forthcoming)).

[13] On this translation, see L.1 (Appendix I).

[14] On early medieval astronomy and astrology, see S. C. McCluskey, *Astronomies and Cultures in Early Medieval Europe*, Cambridge, 1998; B. S. Eastwood, *Ordering the Heavens. Roman Astronomy and Cosmology in the Carolingian Renaissance*, Leiden-Boston, 2007; D. Juste, 'Horoscopic Astrology in Early Medieval Europe (500–1100)', in *La cognoscenza scientifica nell'alto medioevo. Settimane di Studio della Fondazione Centro Italiano di Studi sull'Alto Medioevo*, LXVII *(Spoleto, 25 aprile – 1 maggio 2019)*, Spoleto, 2020, 311-30.

[15] See R.52.

with attribution to Ptolemy.[16] It is moreover likely that Pseudo-Ptolemy's *Iudicia* (B.3) existed, at least in some form, by the middle of the tenth century, even though the earliest extant manuscripts do not predate the twelfth century. But these early works are exceptions which hardly alter the overall picture that Ptolemy was for the most part unknown until the twelfth-century translations from the Greek and especially from the Arabic, which revolutionised the history of science and philosophy in Latin Europe.

4.2. Ptolemaic astronomy and astrology in the Middle Ages

The earliest Ptolemaic translation of the twelfth century seems to have been the *Centiloquium*, partially (v. 1–39) rendered into Latin by Adelard of Bath about 1120 (B.1.1). Within the next decades, the *Almagest* was translated three times (A.1.1–3), the *Tetrabiblos* twice (A.2.1–2) and the *Centiloquium* five more times, together with Abuiafar Hamet filius Joseph's (Abū Jaʿfar Aḥmad ibn Yūsuf) commentary (B.1.2–6/C.3.1.1–5). The key figures among the translators were Plato of Tivoli, who translated in Barcelona the *Centiloquium* in 1136 (B.1.2) and the *Quadripartitum* in 1138 (A.2.1), and Gerard of Cremona, who translated the *Almagest* in Toledo before 1175, quite possibly as early as the 1140s or 1150s (A.1.2). Gerard of Cremona is also responsible for the Latin versions of two Arabic commentaries on the *Almagest* that were to become very popular among Latin astronomers, namely Thebit Bencora's (Thābit ibn Qurra) *De hiis que indigent expositione antequam legatur Almagesti* (C.1.1) and Geber's (Jābir ibn Aflaḥ) *Liber super Almagesti* (C.1.2). Another important early translation is the *Planispherium*, turned into Latin by Hermann of Carinthia in Toulouse in 1143 (A.6.1). As a result, the essential Ptolemaic works in both astronomy and astrology were available in Latin by the middle of the twelfth century (or so). For the *Almagest*, the *Quadripartitum* and the *Centiloquium*, Plato of Tivoli's and Gerard of Cremona's translations prevailed throughout the Middle Ages, with the partial exception of Plato of Tivoli's *Quadripartitum*, which was challenged in the fourteenth century and largely replaced in the fifteenth century by the translation made by Egidius de Tebaldis in Toledo sometime after 1257, a translation which, importantly, was accompanied by the extensive commentary of Haly Abenrudian (ʿAlī ibn Riḍwān) (A.2.5/C.2.2).

A long-standing historical generalisation holds that the *Almagest* was not properly studied and understood in Western Europe before the time of Peurbach and Regiomontanus. A mere glance at the *c.* 60 extant manuscripts and 15 commentaries prior to 1450 (C.1.3–17) would suffice to counter this belief. The earliest commen-

[16] See A.6.1, under Note 1.

taries, in particular Gerard of Cremona's *Notule Almagesti* (C.1.3), the *Almagesti minor* (C.1.4) and the anonymous *Notule Almagesti* (C.1.5), demonstrate that full understanding of the material was achieved by the early thirteenth century. More generally, the commentaries, as well as the glosses in the manuscripts, show that the *Almagest* was thoroughly studied throughout Europe. We have the remarkable case of Johannes Andree Schindel, who lectured on all 13 books at the University of Prague from 1412 to 1418 (C.1.14) and there is ample evidence that the text was discussed and scrutinised at the universities of Bologna, Oxford and Paris, among others, from the early thirteenth to the first half of the fifteenth century.

By contrast, Ptolemaic astrology did not stimulate the interest of medieval commentators to the same degree. Besides Gerard of Cremona, who may have produced full-length commentaries on the *Quadripartitum* and on the *Centiloquium* (on this, see C.2.1), the earliest substantial commentary on the *Quadripartitum* did not appear until *c.* 1447 (C.2.6) and eight commentaries on the *Centiloquium* were produced before 1450, only four of which covered the whole text (C.3.4, C.3.6 and C.3.8–9).

4.3. The recovery of the Greek Ptolemy in the Renaissance

Until the middle of the fifteenth century, Latin scholars had access to Ptolemaic astronomy and astrology almost exclusively through translations made from the Arabic. The only exceptions are the *Almagest* translated from the Greek in Sicily *c.* 1150 (A.1.1) and both the *Quadripartitum* and the *Analemma* translated, also from the Greek, by William of Moerbeke *c.* 1270 (A.2.6 and A.5.1), but these translations failed to catch on and remained little known. The century between *c.* 1450 and *c.* 1550 can be characterised as the period of recovery of the Greek Ptolemy, thanks to the work of humanist translators and scholars whose recurrent concern was to replace the medieval 'barbaric' translations full of arabisms by reclaiming the original texts. The starting point of this movement may be placed in 1451, when George of Trebizond translated the *Almagest* on the basis of a Greek manuscript that had been put at his disposal by Cardinal Bessarion (A.1.4) and simultaneously composed a massive commentary on it (C.1.19). George of Trebizond's translation and commentary faced sharp criticism, which eventually resulted in a new Latin work commissioned by Cardinal Bessarion: the *Epitome Almagesti* (C.1.21), begun by Georg Peurbach and completed by Johannes Regiomontanus in 1461/62. This work, often regarded as the most important astronomical *opus* produced between Ptolemy and Copernicus, was essentially a summary of the *Almagest* composed by the best mathematicians and astronomers of the time, and a summary which could serve as a substitute for the *Almagest* itself. Even though Gerard of Cremona's translation did not fall into complete oblivion (it was printed in Venice in 1515),

sixteenth-century scholars read the *Almagest* mainly through Regiomontanus's *Epitome Almagesti*, which was published three times between 1496 and 1550, and George of Trebizond's translation, which was printed four times (without the commentary) between 1528 and 1551, including — significantly — as part of the two editions of Ptolemy's *Opera omnia* published in Basel in 1541 and 1551.

Soon after dealing with the *Almagest*, George of Trebizond translated the *Centiloquium* from the Greek in 1453–1454 (B.1.7) and composed, here too, a massive commentary on it (C.3.11). In 1477–1479, Giovanni Pontano produced his own translation from the Greek (B.1.9), to which he also appended an extensive commentary (C.3.16). While both versions enjoyed comparable success in the early years (each is extant in 18 manuscripts), the first *Centiloquium* to appear in print was neither of them, but Plato of Tivoli's, in 1484, 1493 and 1519. George of Trebizond's translation (with the commentary) was eventually printed three times, between 1540 and 1550, but it is Pontano's version that became the vulgate text of the *Centiloquium* in the sixteenth and seventeenth centuries, with no fewer than 22 editions published between 1512 and 1674 (mostly without the commentary). Pontano's text was also the version published as part of the two editions of Ptolemy's *Opera omnia* in 1541 and 1551.

New Greek-Latin translations of the *Quadripartitum* came only later, but they were to surpass in number those of any other Ptolemaic work. Between 1513 and the beginning of the seventeenth century, seven translations were made, three of which became especially important, by Joachim Camerarius in 1535 (A.2.9), Antonius Gogava in 1548 (A.2.10) and Philipp Melanchthon in 1553 (A.2.11). Camerarius published the *editio princeps* of the Greek text, together with his own Latin translation of the first two books, to which the printer, Johannes Petreius, appended Books III–IV in Plato of Tivoli's translation. This version (Camerarius-Plato) was the one published in Ptolemy's *Opera omnia* of 1541 and 1551 and it was also reprinted as part of the first volume of Francesco Giuntini's *Speculum astrologiae* in 1581 and 1583. In 1548, Gogava published the first complete translation from the Greek, which consisted of Camerarius's translation for Books I–II and of his own translation for Books III–IV. Finally, Melanchton took his turn at translating the whole work, using and improving on Camerarius's translation, but, apparently, without knowledge of Gogava's endeavour. Melanchthon's translation was reprinted four times in the seventeenth century. Despite these new translations from the Greek made widely available, the readership of the *Quadripartitum* was probably very mixed throughout the sixteenth century, for six editions of the complete Arabic-Latin text also circulated in print, four in Plato of Tivoli's translation (ed. 1484, 1519, 1533 and 1551) and two in Egidius de Tebaldis's version, together with Haly Abenrudian's commentary (ed. 1493 and 1519).

It is worth noting at this point that the most spectacular editorial success of a Ptolemaic work in the sixteenth century did not come from the *Almagest*, the *Quadripartitum* or the *Centiloquium*, but from Pseudo-Ptolemy's *Inerrantium stellarum significationes* (B.13), a parapegma similar to Book II of the *Phaseis* in structure, but wholly different in wording, translated from the Greek by Niccolò Leonico Tomeo and printed over 50 times from 1516 onwards, including in the already mentioned *Opera omnia* of 1541 and 1551.

As for the commentaries, the situation in the Renaissance is very different from what we found in the Middle Ages. Leaving aside George of Trebizond and Regiomontanus (who is also responsible for works C.1.22–23), only three commentaries on the *Almagest* were written between *c.* 1450 and 1548 (C.1.24–26), none of which is of prime importance. Astrology, on the other hand, attracted much more attention, with 16 commentaries on the *Quadripartitum* composed between 1447 and 1539 (C.2.6-C.2.21), and 13 or 14 commentaries on the *Centiloquium* written over the same period (C.3.9–21 and perhaps C.3.22). Remarkably, almost one third of these commentaries (C.2.6–8, C.2.11, C.2.13, C.2.18, C.3.9 and C.3.17–21) were produced by professors and students at the University of Cracow, which had become since the middle of the fifteenth century the leading centre for astrological studies in Europe and one of the few universities to have a dedicated chair of astrology.

4.4. After Copernicus

It has often been said that the publication of Copernicus's *De revolutionibus* (1543) spelled the end not only of Ptolemaic astronomy but also of astrology wholesale. Here again, a simple glance at the works produced after 1543 would suffice to convince anyone that neither assertion is true. As regards astrology, exactly half of the 42 commentaries on the *Quadripartitum* recorded here were written after 1543 and these include all the most important and substantial ones, in particular by Giuliano Ristori in 1547–1548 (C.2.23), Girolamo Cardano in 1554 (C.2.24), Valentin Nabod after 1574 (C.2.30), Conrad Dasypodius in 1578 (C.2.31–33) and Francesco Giuntini in 1581 (C.2.34). It would be no exaggeration to say that the second half of the sixteenth century was a golden age of the *Quadripartitum* in Europe.

On the astronomical side, the first commentator we encounter after 1543 is Erasmus Reinhold, who is famous for his *Prutenic Tables*, the first astronomical tables based on Copernicus, which he published in 1551. Two years earlier, in 1549, Reinhold had written a commentary on chapters V.12–16 of the *Almagest* (C.1.28) [Plate 27] and published a new translation of Book I, to which he added his own *scholiae* (A.1.5). Four more translations of the *Almagest* — all of them partial translations — were to follow and it is noticeable that three of them were made in the context of teaching,

at the Collège Royal in Paris in 1556 (A.1.6), at Merton College in Oxford in 1568 (A.1.7) and at the University of Pisa as late as *c.* 1673 (A.1.9). For his translation of Book I of the *Almagest*, Reinhold used the *editio princeps* of the Greek text that had been published in Basel in 1538, in a large volume that also contained the *editio princeps* of the Greek text of Theon of Alexandria's *Commentary on the Almagest*. Although it was published just five years before Copernicus's *De revolutionibus*, Theon's commentary was to enjoy remarkable success, with no fewer than nine Latin translations made between *c.* 1550 and *c.* 1673 (C.1.30.1–9). Most of these translations concerned only parts of the work (one to six books), but three of them covered most or the complete work, by Giovanni Battista Teofilo, a student of Federico Commandino in Urbino, in the 1570s (C.1.30.4), by Jerónimo Muñoz at the University of Salamanca in 1582 (C.1.30.5) and by David Sinclair at the Collège Royal in Paris sometime between 1599 and 1629 (C.1.30.8).

The second half of the sixteenth century also witnessed a new interest in Ptolemy's minor works. It is during that period that the extant commentaries on the *Planispherium* and on the *Analemma* were produced, by Federico Commandino in 1558 (C.4.5) and 1562 (C.4.2) respectively, and, for the latter, by Johannes Praetorius after 1562 (C.4.3). Somewhat later, the Greek texts of the *Planetary Hypotheses* and the *Phaseis* (both incomplete) were rediscovered and translated into Latin, three times between *c.* 1587 and 1620 for the former (A.3.1–3) and twice, in 1592 and 1630, for the latter (A.4.1–2).

After 1650, the production of Latin texts declined dramatically. The last Ptolemaic offsprings seem to be Placido Titi's summary of the *Quadripartitum*, published in Padua in 1658 (C.2.42), and George Fleming's and Alessandro Marchetti's translation of Book I of the *Almagest*, together with Theon's commentary, prepared at the University of Pisa *c.* 1673 (A.1.9/C.1.30.9, also C.1.36), even though several works continued to be printed and copied in the second half of the seventeenth century, even until the eighteenth century for MSS [ZZ] Boncompagni 219 and Toledo, ABC, 98–18.

	Work	**MSS**	**EDS**
1	Pseudo-Ptolemy, *Centiloquium* (B.1)	204	28
	— tr. Plato of Tivoli (B.1.2)	— 104	— 3
	— 'Mundanorum' version (B.1.4)	— 51	
	— tr. Giovanni Pontano (B.1.9)	— 18	— 22
	— tr. George of Trebizond (B.1.7)	— 18	— 3
	— others (B.1.1, B.1.3, B.1.5–6, B.1.8, B.1.10)	— 13	
2	Abuiafar, *Commentum in Centiloquium* (C.3.1.1–5)	144	3
3	Ptolemy, *Quadripartitum* (A.2)	109	21
	— tr. Egidius de Tebaldis (A.2.5)	— 50	— 2
	— tr. Plato of Tivoli (A.2.1)	— 37	— 7
	— others (A.2.2–4, A.2.6–13)	— 22	— 12
4	Ptolemy, *Almagest* (A.1)	92	12
	— tr. Gerard of Cremona (A.1.2)	— 68	— 1
	— tr. George of Trebizond (A.1.4)	— 11	— 4
	— others (A.1.1, A.1.3, A.1.5–9)	— 13	— 7
5	Pseudo-Ptolemy, *De cometis* (B.4)	92	
6	Thebit Bencora, *De hiis que indigent expositione...* (C.1.1)	69	
7	Pseudo-Ptolemy, *Dixerunt Ptholomeus et Hermes...* (B.5)	62	
8	Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)	2	50+
9	Haly Abenrudian, *Glosa super Quadripartito Tholomei* (C.2.2)	44	2
10	*Almagesti minor* (C.1.4)	39	
11	Geber, *Liber super Almagesti* (C.1.2)	36	1
12	Pseudo-Ptolemy, *De imaginibus super facies signorum* (B.14)	35	
13	Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6)	25	3
14	Pseudo-Ptolemy, *Iudicia* (B.3)	25	1
15	Giovanni Pontano, *Liber commentationum...* (C.3.16)	15	7
16	Ptolemy, *Planispherium* (A.6)	18	3
	— tr. Hermann of Carinthia (A.6.1)	— 17	— 3
	— other (A.6.2)	— 1	
17	Maslama, *Note et additiones in Planispherium* (C.4.4 = A.6.1–2)	17	3
18	George of Trebizond, *Commentarii in aphorismis...* (C.3.11)	14	3
19	Johannes Regiomontanus, *Epitome Almagesti* (C.1.21)	12	3

Table 2: Most popular Ptolemaic works (15 witnesses or more)[17]

[17] Manuscripts (MSS) and early printed editions (EDS) have been counted according to the lists provided in the work entries. No. 2: 144 MSS, not counting the 18 MSS of C.3.1.1 and C.3.1.3-4 that preserve the source text only and omit Abuiafar's commentary. No. 9: 44 MSS, not counting

5. Content and organisation of the entries

5.1. Works

Part I surveys all works of the *Corpus Ptolemaicum* following the order of the three categories A-B-C, as presented in Table 1. Within their own section or sub-section, the works are arranged — as far as possible — in chronological order, with the exception of section C.4, whose items are listed following the siglum order of the source text. For the sake of simplification and clarity, the Latin titles of the three master works have been standardised as *Almagesti*,[18] *Quadripartitum* and *Centiloquium*, and the same has been done for Theon of Alexandria's *Commentum in Almagesti* (C.1.30.1–9) and Abuiafar Hamet filius Joseph's *Commentum in Centiloquium* (C.3.1.1–5). For the other works, the title has been either taken or adapted from the witness(es) or, for works without a title, coined in Latin between angular brackets ⟨ ⟩. Each entry comprises six rubrics giving the following information:

- A brief presentation of the work focusing on authorship, date, circumstances of composition and other information deemed important. This can be followed by additional rubric(s), called **Note**, giving information about special features of the work.
- **Text:** this rubric provides text samples from a selected witness. These text samples include the title, incipit, explicit and colophon of the work, as well as, when deemed necessary, of other parts of the work (e.g., the preface and the commentary). Also given are the Incipit and explicit of each book for the *Almagest* and the *Quadripartitum*, and the incipit of selected *verba* (v. 1–10, 51, 60 and 99–100) for the *Centiloquium*.
- **Bibl.:** modern studies discussing the work.
- **Modern ed.:** modern editions of the work and, if applicable, translations into modern languages.
- **EDS:** the list of known early printed editions (up to AD 1700)
- **MSS:** the list of known manuscripts.

A separate entry for the Greek original text has been provided for each of the authentic works (A.1–8) and the same has been done for the Greek and Arabic works translated into Latin more than once (B.1, C.1.30, C.2.12, C.2.25 and C.3.1),

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the six MSS that omit Haly Abenrudian's commentary. No. 15: not counting the three MSS and 15 EDS that omit Pontano's commentary. No. 17: 17 MSS, not counting one MS (Oxford, CCC, 224) that does not contain Maslama's notes. No. 18: 14 MSS, not counting the four MSS that omit George of Trebizond's commentary.

[18] 'Almagesti' seems generally accepted as an indeclinable noun by Latin scholars, even though the forms 'Almagestum' and 'Almagesto' are also found.

in order to avoid repetitions of the bibliographical material of the source text. All translations of these Greek or Arabic works are grouped under the corresponding siglum, whose position in the list has been determined by the date of the earliest Latin translation.[19]

When a work consists of two items, typically a text accompanied by its commentary, this work is treated as one textual unit and described under category C (with three exceptions, see below), while the source text is given a distinct entry only for the record. For example, Haly Abenrudian's *Glosa super Quadripartito Tholomei* (C.2.2), which includes Ptolemy's original text in full (A.2.5), is described under C.2.2 and the source text is merely recorded under A.2.5. Besides C.2.2 (= A.2.5), the works concerned are C.1.30.3 (= A.1.7), C.1.30.7 (= A.1.8), C.1.30.9 (= A.1.9), C.2.15 (= A.2.7), C.2.16 (= A.2.8), C.2.30 (= A.2.12), C.3.1.1–5 (= B.1.2–6), C.3.11 (= B.1.7) and C.3.16 (= B.1.9). Exception to this rule has been made in three cases where the source text is clearly the most significant item, namely A.1.5 (= C.1.27), A.6.1–2 (= C.4.4) and C.1.30.5 (= C.1.34).

5.2. Early printed editions

Part II describes the 104 Latin Ptolemaic editions printed before AD 1700 identified to date. All editions have been described on the basis of the original or of digital reproductions of the whole volume, with two partial exceptions noted *in loco* (ed. Lyon, Sebastianus Gryphius, 1545, and ed. Lyon, Antonius Gryphius, 1567). Efforts have been made to include all editions of Ptolemaic works but, just as for the manuscripts (see 5.3 below), it is extremely difficult to be exhaustive, especially for the editions published outside Italy and the German-speaking regions, for which systematic inventories are wanting (see below). For editions of astronomical and astrological texts, two important resources are Jürgen Hamel's *Bibliographie der astronomischen Drucke bis 1700* (published online, update 27 April 2020)[20] and Leandro Cantamessa's *Astrologia. Opere a stampa (1472–1900)*, Firenze, 2007, 2 vols.[21] In one instance (B.13), I was not able to identify all sixteenth-century editions and I did not attempt to locate post-1600 editions. The editions are listed chronologically by date of publication. For each of them, the reader will find the following information in five rubrics:

[19] The Arabic texts will be fully described in the Arabic survey in preparation under the supervision of Benno van Dalen. These include A.1-7, B.1, B.4, B.14, C.1.1-2, C.2.2, C.3.1 and C.4.4. Other works probably translated from the Arabic, but whose Arabic text has not been found, are B.2-3, B.5-6, B.11, B.18 and C.1.18.

[20] https://www.astw.de/astronomiegeschichte/bibliographie_bis_1700/.

[21] Also published as an online database: http://www.biblioastrology.com/en/index.aspx.

- The title page of the volume, which is always reproduced in full. If available, the bibliographical information given at the end of the volume is also reproduced in the same rubric, under the heading '**Last page**'.
- The contents of the volume, following the same guidelines as for manuscripts (see 5.3 below, third rubric).
- **Bibl.:** early printed editions being rarely described, this rubric is in most cases restricted to the identification number, if available, namely, 'GW' (*Gesamtkatalog der Wiegendrucke*)[22] for the incunables, 'EDIT16' (*Censimento Nazionale delle Edizioni Italiane del XVI secolo*)[23] for sixteenth-century editions printed in Italy, 'VD16' (*Verzeichnis der im deutschen Sprachbereich erschienenen Drucke des 16. Jahrhunderts*)[24] for sixteenth-century editions printed in German-speaking regions, and 'VD17' (*Verzeichnis der im deutschen Sprachbereich erschienenen Drucke des 17. Jahrhunderts*)[25] for seventeenth-century editions printed in German-speaking regions. For the incunables, references to Hain[26] and Klebs[27] are also provided.
- **Exemplar:** reference (shelfmark) of the exemplar used to prepare the entry.
- Location and identification of the Ptolemaic section(s), following the same guidelines as for manuscripts (see 5.3 below, fifth rubric), except that glosses are ignored.

5.3. Manuscripts

Part III describes the 695 Latin Ptolemaic manuscripts known at present, including the manuscripts gone missing after 1900.[28] With the exception of these missing items, all manuscripts have been inspected first-hand, either on the original or on digital reproductions.[29] The identification of the manuscripts results from systematic

[22] https://www.gesamtkatalogderwiegendrucke.de/GWEN.xhtml.

[23] https://edit16.iccu.sbn.it/.

[24] https://www.bsb-muenchen.de/sammlungen/historische-drucke/recherche/vd-16/.

[25] http://www.vd17.de.

[26] L. Hain, *Repertorium bibliographicum in quo libri omnes ab arte typographica inventa usque ad annum MD typis expressi ordine alphabetico vel simpliciter enumerantur vel adcuratius recensentur opera*, II.2, Stuttgart-Paris, 1826-1838, 2 parts in 4 vols.

[27] A. C. Klebs, 'Incunabula Scientifica et Medica', *Osiris* 4 (1938), 1-359.

[28] Or, more precisely, after 1898, when the collection of manuscripts of Baldassarre Boncompagni was sold by his heirs. Destroyed manuscripts (marked †), include Chartres, BM, 214; Metz, BM, 286; Milan, BT, 151; St Petersburg, BGP, Lat. F.XVII.74; Wroclaw, BU, R 172; and Wroclaw, BU, R 339. Lost manuscripts, or, rather, manuscripts whose present location is unknown or cannot be disclosed, are denoted '[ZZ]' and listed accordingly at the end of the catalogue. These manuscripts are Boncompagni 218; Boncompagni 219; Conte de Sarzana, no shelfmark; *olim* Maihingen, A.B. VII.3.2º 7; and *olim* Robert B. Honeyman Jr., no. 14.

[29] Digital copies of nearly all manuscripts described here are available at Ptolemaeus Arabus et Latinus. I have consulted *in situ* most of the Ptolemaic manuscripts preserved in the libraries I have visited since 2013, that is, Berlin, Bologna, Brussels, Budapest (OSK), Florence (BML, BNC and BR), Gloucester, Leipzig, London (BL, SAL and WL), Milan, Munich, Oxford (BL), Paris (BnF),

survey of hundreds, if not thousands, of library catalogues and of the available bio-bibliographical resources, both published[30] and unpublished.[31] Exhaustivity has been an aim for the present book, but the reader must be aware that there is no such thing as a complete catalogue of manuscripts. Many manuscript collections around the world have not been adequately catalogued or not catalogued at all, and even the catalogues prepared to the highest academic standards do not offer a guarantee for proper identification of the Ptolemaic material. The entries have been kept as concise as possible, the primary aim being to locate and identify the Ptolemaic sections within their textual environment, while providing essential information about the manuscript and its history. For each manuscript, the reader will find the following information in five rubrics:

– Date and, as far as possible, origin (**Or.**) and provenance (**Prov.**), where 'origin' refers to the place where the manuscript was produced and 'provenance' to the whereabouts of the manuscript thereafter.
– Essential codicological information, that is, the material (parchment, paper), the total number of folia/pages and the number of hands or parts, as well as other significant features deemed relevant. Flyleaves and other additional folia at the beginning and at the end are denoted 'I'-'II' etc. and 'Iª'-'IIª' etc. respectively.
– The contents of the manuscript. These are listed as fully as possible, allowing for a few exceptions in the cases of foreign sections in composite manuscripts

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the Vatican, Venice (BNM and MCC), Wolfenbüttel and Zurich.

[30] Among which essential items include Thorndike 1923-1958; E. Zinner, *Verzeichnis der astronomischen Handschriften des deutschen Kulturgebietes*, München, 1925; Carmody 1956; L. Thorndike and P. Kibre, *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*, Cambridge (Mass.), 1963 (Revised Edition); Kristeller 1963-1992; Clagett 1964-1984; D. C. Lindberg, *A Catalogue of Medieval and Renaissance Optical Manuscripts*, Toronto, 1975; Rosińska 1984; Pedersen 2002; and Menso Folkert's online database *Jordanus. An International Catalogue of Medieval Scientific Manuscripts*, now published on the Ptolemaeus Arabus et Latinus website (http://ptolemaeus.badw.de/jordanus/start).

[31] In particular, several resources that were available at the Lehrstuhl für Geschichte der Naturwissenschaften in Munich until Menso Folkerts's retirement in 2008: a *copy of Zinner's *Verzeichnis* (previous note) copiously annotated by Zinner himself; three copies of Carmody 1956 annotated by Francis Benjamin, Heinrich Hermelink and Paul Kunitzsch respectively; a *handwritten catalogue (in the form of *c.* 1700 fiches) of medieval Latin scientific texts compiled by Axel Björnbo; and a *draft copy (dated 2009) of H. L. L. Busard and M. Folkerts, *Geschichte der Mathematik im westlichen Mittelalter. Ein Repertorium*. Items marked with an asterisk (*) above are available in digitised form at Ptolemaeus Arabus et Latinus. Two additional resources are the 'New Carmody', a fully revamped version of Carmody 1956, in preparation by Charles Burnett and myself (see C. Burnett and D. Juste, 'A New Catalogue of Medieval Translations into Latin of Texts on Astronomy and Astrology', in *Medieval Textual Cultures. Agents of Transmission, Translation and Transformation*, eds F. Wallis, R. Wisnovsky, Berlin-Boston, 2016, 63-76), and my own database of (currently *c.* 4000) Latin astrological manuscripts (*Catalogus Codicum Astrologorum Latinorum – CCAL*), of which two volumes have been published (Juste 2011-2015).

and of manuscripts of non-scientific content. Authors' names and book titles have been standardised following authoritative bio-bibliographical works and modern studies.[32] Standardised book titles are shown in italics. For unidentified and little-known texts, the incipit is given within quotation marks ('...'), which are also used for all sections quoted from the manuscript. For Greek and Arabic texts, the name of the translator is indicated only when two or more translations are known to exist. Ptolemaic sections are denoted by the generic word ***Ptolemaica*** highlighted in bold. The contents rubric can be followed by additional rubric(s), called **Note**, giving information concerning special features of the manuscript.

– **Bibl.:** catalogue entries and modern studies discussing the manuscript. As a general rule, I have refrained from quoting online entries, except in a few cases where the entry concerned provides essential information not found elsewhere. Likewise, I avoided giving references to online reproductions of manuscripts. The reason is that more and more libraries publish their holdings online and any attempt at listing what is available at a point in time would yield misleading or obsolete information within months.
– Location and identification of the Ptolemaic section(s). For each Ptolemaic section, the title, incipit, explicit and colophon (and more if deemed necessary) are given within quotation marks '...', together with the identification of the work by title and siglum, highlighted in bold and preceded by the sign =. This is followed by further remarks regarding the presence of glosses, their importance and whether they are in the hand of the scribe. For larger texts, in particular the *Almagest* and the *Quadripartitum*, the location of each part or book is provided. Other features worth of notice can also be given, concerning, for instance, the content and state of preservation of the text.

[32] For example, with reference to the two previous notes, the 'New Carmody' and the *CCAL* have been followed for astronomy and astrology (including astral magic, geomancy and divination), Busard's and Folkerts's *Geschichte der Mathematik* for mathematics, Clagett 1964–1984 for physics and Lindberg's *Catalogue* for optics.

Part I

Works

A. Authentic works

A.1. *Almagest* [Greek]

The *Almagest* (Greek: *Μαθηματικὴ σύνταξις*, 'Mathematical Composition'; Arabic: *al-Majisṭī*, 'The Greatest') comprises 13 books dealing respectively with cosmology and trigonometry (Book I), spherical astronomy (II), the Sun (III), the Moon (IV–V), eclipses (VI), the fixed stars (VII–VIII), Mercury (IX), Venus and Mars (X), Jupiter and Saturn (XI), retrogradation (XII) and planetary latitudes (XIII). The *Almagest* was translated several times into Arabic. Three of these translations are extant, all dating from the ninth century, by al-Ḥajjāj ibn Yūsuf ibn Maṭar, by Isḥāq ibn Ḥunayn in a revision by Thābit ibn Qurra, and by Thābit ibn Qurra. There are nine extant Latin translations made between the twelfth and the seventeenth century, two from the Arabic (A.1.2–3) and seven from the Greek (A.1.1, A.1.4–9). Only three of these Latin translations include the complete text (A.1.1–2 and A.1.4).

Bibl. **General:** Delambre 1817, II, 67–410; F. Boll, 'Studien über Claudius Ptolemäus. Ein Beitrag zur Geschichte der griechischen Philosophie und Astrologie', *Jahrbücher für Classische Philologie*, Suppl. 21 (1894), 49–244: 66–76; Heiberg 1907, XVIII–CXLIX; Neugebauer 1975, I, 19–261, and II, 836–38; R. R. Newton, *The Crime of Claudius Ptolemy*, Baltimore, 1977; N. M. Swerdlow, 'Ptolemy on Trial', *The American Scholar* 48 (1979), 523–31; O. Gingerich, 'Was Ptolemy a Fraud?', *Quarterly Journal of the Royal Astronomical Society* 21 (1980), 253–66; R. R. Newton, *The Origins of Ptolemy's Astronomical Parameters*, Baltimore, 1982; N. W. Swerdlow, O. Neugebauer, *Mathematical Astronomy in Copernicus's De revolutionibus*, New York, 1984, I, 33–41; C. Wilson, 'The Sources of Ptolemy's Parameters', *JHA* 15 (1984), 37–47; R. R. Newton, *The Origins of Ptolemy's Astronomical Tables*, Baltimore, 1985; J. P. Britton, *Models and Precision. The Quality of Ptolemy's Observations and Parameters*, New York, 1992; J. Evans, 'Ptolemy Indicted Again', *JHA* 24 (1993), 145–47; L. Taub, *Ptolemy's Universe. The Natural Philosophical and Ethical Foundations of Ptolemy's Astronomy*, Chicago, 1993; G. Van Brummelen, *Mathematical Tables in Ptolemy's Almagest*, PhD dissertation, Simon Fraser University, 1993; B. R. Goldstein, 'Saving the Phenomena: The Background to Ptolemy's Planetary Theory', *JHA* 28 (1997), 1–12; J. Evans, 'The Origins of Ptolemy's Cosmos', in *Cosmology Through Time. Ancient and Modern Cosmologies in the Mediterranean Area*, eds S. Colafrancesco, G. Giobbi, Milano, 2003, 123–32; A. Jones, 'Ptolemy's Mathematical Models and Their Meaning', in *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*, eds M. Kinyon, G. Van Brummelen, New York, 2005, 23–42; B. R. Goldstein, 'What's New in Ptolemy's *Almagest*?', *Nuncius* 22 (2007), 261–85; R. Fitzpatrick, *A Modern Almagest. An Updated Version of Ptolemy's Model of the Solar System*, The University of Texas at Austin, 2010 [published online]; Pedersen 2011; G. Aujac, *Claude Ptolémée: Astronome, astrologue, géographe*, Paris, 2012, third edition (first edition 1993), 23–67; Tolsa 2013, 214–22, 270–301 and *passim*; A. Tihon, 'Alexandrian Astronomy in the 2nd Century AD: Ptolemy and His Times', in *The Alexandrian Tradition. Interactions between Science, Religion, and Literature*, eds L. A. Guichard, J. L. García Alonso, M. Paz de Hoz, Bern-Berlin, 2014, 73–91: 73–74; J. Feke, *Ptolemy's*

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Modern ed. The *editio princeps* of the Greek text was prepared by Simon Grynaeus, who published it on Johannes Walderus's press in Basel in 1538, together with his own edition of Theon of Alexandria's commentary on the *Almagest* (VD16 P 5200). The exemplar used for the *Almagest* is now MS Paris, BnF, gr. 2393 (see Heiberg 1907, xxv and lxxiii). The authoritative critical edition of the Greek text is J. L. Heiberg, *Claudii Ptolemaei opera quae exstant omnia*, I: *Syntaxis mathematica*, 2 vols, Leipzig, 1898–1903 (and 'Prolegomena' in Heiberg 1907, xviii–cxlix). Heiberg's text has been translated into German by K. Manitius, *Des Claudius Ptolemäus Handbuch der Astronomie*, 2 vols, Leipzig, 1912–1913; and into English by G. J. Toomer, *Ptolemy's Almagest*, London, 1984 (new edition Princeton, 1998). A former edition, together with a French translation, was made by N. Halma, *Composition mathématique de Claude Ptolémée traduite pour la première fois du grec en français, sur les manuscrits originaux de la Bibliothèque Impériale de Paris*, 2 vols, Paris, 1813–1816 (on the basis of several MSS and early printed editions available at the Bibliothèque nationale de France, but without critical apparatus). New French translation by P. Paquette, *L'Almageste de Ptolémée*, Les Coteaux, 2023 (on the basis of all existing editions and translations, as well as several Greek MSS). The Arabic and Latin translations are for the most part unavailable in a modern edition, with the exceptions of the star catalogue (VII.5-VIII.1), whose Arabic and Latin versions have received a critical edition by Kunitzsch 1986–1991; of Book I, whose several versions have been edited by Nicolai, *La tradizione* (the two main Arabic versions and Latin versions A.1.1, A.1.2 and A.1.3); and of the partial Latin translations A.1.3, edited by Grupe, and A.1.8, edited by De Vivo.

A.1.1. *Almagesti,* tr. Sicily c. 1150

Translated from the Greek in Sicily towards the middle of the twelfth century. According to a fourteenth-century gloss added in the margin of Vatican, BAV, Pal. lat. 1371, f. 41r, the text was translated by one 'Hermann' in Palermo during the reign

of King Roger [Roger II of Sicily, 1130–1154] ('Translatus in Urbe Panormi tempore regis Roggerii per Hermannum de Greco in Latinum'). Lemay ('De la scolastique', *passim*) argued at length that this Hermann was to be identified with Hermann of Carinthia, even though the evidence seems to speak against this identification, as Haskins (1927, 53–54 and 161) had already pointed out. It does not follow, however, that the gloss in Vatican, BAV, Pal. lat. 1371 should be rejected altogether, as has been done by Haskins, who dated the translation to *c.* 1160, a dating which has been widely accepted in the secondary literature since. The reasons adduced by Haskins in favour of this dating, however, are circumstantial and have been criticised by Lemay, who credits the gloss and dates the translation to *c.* 1150 ('De la scolastique', 443–46, 454, 472 and 483), and, recently, by Angold, who re-dated the translation to *c.* 1156 ('The Norman Sicilian Court', 150). The identity of the translator and the exact date of the translation are yet to be elucidated.

Note This translation probably corresponds to the 'Almagistri de Greco' listed in the 1280 inventory of Gonzalo Pérez, archbishop of Toledo from 1280 to 1299 (see R. Gonzálvez Ruiz, *Hombres y Libros de Toledo (1086–1300)*, Madrid, 1997, 471–72, no. 9; Hernández/Linehan 2004, 488, no. 30/9).

Text '(Vatican, BAV, Vat. lat. 2056) (1r–1v) **[TRANSLATOR'S PREFACE]** Iam pingendi Gratias antiqui feruntur habuisse consuetudinem, ut unam quidem vultum aversam, due quibus illa manum porrigeret aspectarent. Cuius misterii non ignarus dudum — ad huius operis lectionem dignos admittas, indignos abicias. Suam quippe rebus dignis adimet dignitatem, siquis eas communicaverit indignis. (1v–9r) **[BOOK I]** 1. Proemium. 2. De ordine theorematum... (chapter index). Proemium auctoris. Valde bene qui proprie philosophati sunt, o Sire, videntur michi sequestrasse theoreticum philosophie a practico — atque inde manifestum est quoniam et reliquorum taetartimoriorum ordinatio contingit eadem omnibus in unoquoque eisdem contingentibus propter rectam speram, id est equinoctialem, sine declinatione ad orizontem subiacet. Claudii Ptolomei Mathematice sintaxeos liber primus explicit. (9r–26r) **[BOOK II]** De universali positione eiusque penes nos habitabilis... (chapter index). (9v) Liber secundus. Pertranseuntes in primo Sintaxeos de totorum positione capitulatim debentia prelibari — minutione vero quando occidentalior subiacens. (26r–33r) **[BOOK III]** I. De magnitudine anni temporis... (chapter index). Assignatas a nobis in ante hoc coordinatis et universaliter debentibus de celo et terra mathematice prelibari — Piscium gradus VI XLV, anomalie vero tercia g<radus> et VIII ad proximum sexagesima Piscium. Explicit liber tertius Claudii Ptolomei Mathematicorum. (33r–41r) **[BOOK IV]** Quibus oportet observationibus que circa Lunam examinare... (chapter index). Claudii Ptolomei Mathematicorum sintaxe liber quartus incipit. A quibus oportet observationibus que circa Lunam examinare. In eo quod ante hoc coordinantes quecunque utique quis videat contingentia circa Solis motum — in coniugationibus Lune et ipsis eclipsibus consonius maxime nostris ypothesibus inventis. Claudii Ptolomei Mathematicorum quartus liber explicit. (41r–47v) **[BOOK V]** Primum de constructione astrolabii organi... (chapter index). Incipit quintus. De constructione astrolabii organi. Causa vero earum que ad Solem sinzugiarum et sinodicarum vel panselinicarum

— periferiam maiorem esse ea que est ZB habuimus et AIZ angulum g<radus> XXXV et d<imidium>, quod propositum erat demonstrando. Finit quintus. (47v–55v) **[BOOK VI]** Primum de sinodis et panselmiis... (chapter index). Claudii Ptolomei Mathematicorum sintaxeos sextus incipit. De sinodis et panselmiis. Deinceps ergo contingente eo quod circa eclipticas sinzugias Solis et Lune negotio — universalius recipientes lunarium partes primas et extremas eclipsium et completionum significationes. (55v–61v) **[BOOK VII]** Claudii Ptolomei Mathematicorum sintaxeos septimus liber incipit. Quoniam fixe stelle eandem semper positionem conservant ad se invicem... (chapter index). (56r) Quoniam fixe stelle eandem semper positionem conservant ad se invicem. Pertranseuntes in ante hoc coordinatis, o Sire, et circa rectam et circa inclinatam speram contingentia — (star catalogue). (61v–66v) **[BOOK VIII]** Expositio canonica eius quod apud australe hemisperium asterismi... (chapter index). (62r) (star catalogue) — spatia sumptis ad Solem significationibus et in ipsis in parte Lune acclinationibus. Claudii Ptolomei Mathematicorum sintaxeos octavus liber explicit. (66v–72v) **[BOOK IX]** De ordine sperarum Solis et Lune et quinque erraticorum... (chapter index). Incipit nonus. De ordine sperarum Solis et Lune et quinque erraticorum. Igitur quecunque quidem quis et de fixis stellis velut in capitulis commemorat secundum quantum usque nunc apparentia processum conceptionis — tantis vero I et VI superant chelarum g<radus> qui secundum observationem. Claudii Ptolomei Mathematicorum sintaxeos liber nonus explicit. (72v–76v) **[BOOK X]** Demonstratio apoguii stelle Veneris... (chapter index). Demonstratio apoguii stelle Veneris. Igitur stelle quidem Mercurii ypotheses et quantitates anomaliarum — optinebit manifestum quoniam et secundum expositum epochis temporis Cancri g<radus> XVI XL. Claudii Ptolomei Mathematici sintaxeos liber decimus explicit. (76v–83v) **[BOOK XI]** Demonstratio excentricis Iovis... (chapter index). Demonstratio excentricis Iovis. Demonstratis circa Martis stellam periodicis motibus et anomaliis et epochis — et collectum g<raduum> numerum dementes ab eo quod tunc apoguio stelle, in apparentem ipsius progressionem incurremus. Claudii Ptolomei Mathematicorum sintaxeos liber undecimus finit. (83v–88v) **[BOOK XII]** Hec sunt que in duodecimo Mathematicorum Ptolomei continentur... (chapter index). De his que imprecessiones presumuntur. His demonstratis consequens utique erit et secundum unamquamque quinque erraticarum factas precessiones — tertio vero hesperias et rursum quarto eoas et quinto esperias, et est canon huiusmodi (followed by a table). (88v–94v) **[BOOK XIII]** Claudii Ptolomei Mathematicorum sintaxeos liber XIII^{us} incipit. Hec continentur in XIII^{o} Mathematicorum Ptolomei... (chapter index). De ypothesibus in eas que secundum latitudinem progressionis quinque planetarum. Delictis autem in eam que de quinque erraticis coordinationem adhuc duobus his et secundum latitudinem — et que ad commoditatem solam contemplationis sed non ad ostentationem commemoratio suggerebat, proprium utique nobis hic et commensurabilem recipiat finem presens negotium.'

Bibl. Björnbo 1909, 100 (no. 19); C. H. Haskins, D. P. Lockwood, 'The Sicilian Translators of the Twelfth Century and the First Latin Version of Ptolemy's Almagest', *Harvard Studies in Classical Philology* 21 (1910), 75–102; J. L. Heiberg, 'Eine mittelalterliche Übersetzung der Syntaxis des Ptolemaios', *Hermes* 45 (1910), 57–66; J. L. Heiberg, 'Noch einmal die mittelalterliche Ptolemaios-Übersetzung', *Hermes* 46 (1911), 207–16; C. H. Haskins, 'Further Notes on Sicilian Translations of the Twelfth Century', *Harvard Studies in Classical Philology* 23 (1912), 155–66: 155–58; Haskins 1927, 53–54, 157–64 and 191–93; F. Bliemetzrieder, 'Adelhard von Bath als Übersetzer der Almagest ca. 1153–1160', in *Adelhard von Bath: Blätter*

aus dem Leben eines englischen Naturphilosophen des 12. Jahrhunderts und Bahnbrecher einer Wiedererweckung der griechischen Antike, München, 1935, 149–274; T. Silverstein, 'Hermann of Carinthia and Greek: A Problem in the "New Science" of the Twelfth Century', in *Medioevo e Rinascimento. Studi in onore di Bruno Nardi*, Florence, 1955, II, 683–99; J. E. Murdoch, 'Euclides Graeco-Latinus: A Hitherto Unknown Medieval Latin Translation of the Elements Made Directly from the Greek', *Harvard Studies in Classical Philology* 71 (1967), 249–302: 263–70; C. Burnett, 'Arabic into Latin in Twelfth Century Spain: The Works of Hermann of Carinthia', *Mittellateinisches Jahrbuch* 13 (1978), 100–34: 130–32; R. Lemay, 'De la scolastique à l'histoire par le truchement de la philologie: Itinéraire d'un médiéviste entre Europe et Islam', in Scarcia Amoretti 1987, 399–535: 428–84; Kunitzsch 1990, 207–08; C. Burnett, 'Indian Numerals in the Mediterranean Basin in the Twelfth Century, with Special Reference ot the "Eastern Forms"', in *From China to Paris: 2000 Years' Transmission of Mathematical Ideas*, eds Y. Dold-Samplonius, J. W. Dauben, M. Folkerts, B. van Dalen, Stuttgart, 2002, 237–88: 244–45 and 248 (reprinted in C. Burnett, *Numerals and Arithmetic in the Middle Ages*, Farnham-Burlington, 2010, V); C. Burnett, 'The Use of Arabic Numerals Among the Three Language Cultures of Norman Sicily', *Römisches Jahrbuch der Bibliotheca Hertziana* 35 (2003–2004), 39–48: 39–40 and 47 (reprinted in C. Burnett, *Numerals and Arithmetic in the Middle Ages*, Farnham-Burlington, 2010, VI); E. Nicolai, *La tradizione greco-latina e arabo-latina del I libro dell'Almagesto. Saggio di analisi e traduzione*, PhD dissertation, Università di Padova, 2010, 11–35 and 57–67; M. Angold, 'The Norman Sicilian Court as a Centre for the Translation of Classical Texts', *Mediterranean Historical Review* 35 (2020), 147–67: 150, 153–54 and *passim*; M. Angold, C. Burnett, 'Latin Translators from Greek in the Twelfth Century: Why and How They Translate', in *Why Translate Science? Documents from Antiquity to the 16th Century in the Historical West (Bactria to the Atlantic)*, ed. D. Gutas, Leiden-Boston, 2022, 488–524: 491.

Modern ed. None, except for Book I, ed. Nicolai, 151–79 (from MSS Vatican, BAV, Pal. lat. 1371, and Vatican, BAV, Vat. lat. 2056). The translator's preface has been edited by Haskins/Lockwood, 99–102 (from Vatican, BAV, Vat. lat. 2056) and Haskins 1927, 191–93 (from Wolfenbüttel, HAB, 147 Gud. Lat. 4º, with variants from Vatican, BAV, Vat. lat. 2056 and Vatican, BAV, Pal. lat. 1371 — MS Bologna, BCA, A. 1855, so far unnoticed, has not been collated). Haskins's edition is reproduced, together with a French translation, in Lemay, 433–39, with notes, 439–62; and has been translated into English by K. Mallette, *The Kingdom of Sicily, 1100–1250: A Literary History*, Philadelphia, 2005, 156–58; and by Angold/Burnett, 505–09. A critical edition by Colette Dufossé is forthcoming.

EDS ---

MSS Bologna, BCA, A. 1855, s. XV, f. 1r–10v (preface and I.1–10)
Florence, BNC, Conv. Soppr. A.V.2654, s. XIII, f. 1r–120r (begins in I.12)
Florence, BNC, Conv. Soppr. J.IV.20 (San Marco 182), s. XIV–XV, f. 153v–158v (excerpts)
Vatican, BAV, Ott. lat. 1826, s. XIII–XIV, f. 65r–78v (Book VII)
Vatican, BAV, Pal. lat. 1371, s. XII or XIII, f. 41r–97v (breaks off in VI.10)
Vatican, BAV, Vat. lat. 2056, s. XIII, f. 1r–94v
Venice, BNM, lat. VIII.10 (3266), s. XIII, f. IIv (I.1)
Wolfenbüttel, HAB, 147 Gud. Lat. 4º (4451), s. XIII, f. 2ra–2vb (preface)

A.1.2. *Almagesti*, tr. Gerard of Cremona

Translated from the Arabic by Gerard of Cremona in Toledo between *c.* 1140 and 1175. The generally accepted date of 1175 for the translation has arisen from a misunderstanding of the colophon in MS Florence, BML, Plut. 89 sup. 45, which only implies that the translation was copied on 11 August 1175 by a certain master Thadeus the Hungarian ('Expleta est dictio tertiadecima libri Ptholomei, et cum ea completur liber Almagesti latine vocatur vigil cura magistri Thadei Ungari anno domini millesimo CLXXV Toleti consumatis, anno autem Arabum quingentessimo LXX° mensis octavi XI° die translatus a magistro Girardo Cremonensi de Arabico in Latinum'). The translation thus existed by 1175, but it may have been made, or at least begun, long before that date, possibly as early as the 1140s or 1150s. Gerard used the two main Arabic translations that were available at the time, namely al-Ḥajjāj's version and Isḥāq's version. The Latin translation exists in two versions, an original version (Kunitzsch's Class A) and a revised version (Class B) (see Kunitzsch 1986–1991, II, 1–10). One important characteristic of Class A is a mistake in the star catalogue, where the latitude of certain stars is given as 300 instead of 60 (reflecting the western and eastern values of the letter *sīn* respectively), as well as a number of mistakes which were fully corrected in Class B. Gerard's translation is the source text of commentaries C.1.3–5, C.1.8–10, C.1.14–17 and C.1.21, and was also used in commentary C.1.6.

Note 1 Ptolemy's star catalogue (VII.5-VIII.1) excerpted from Gerard's translation appears independently from the *Almagest* in several contexts, most notably as the star catalogue of the Alfonsine tables, where all longitudes have been adjusted +17°08′ (see P. Kunitzsch, 'The Star Catalogue Commonly Appended to the Alfonsine Tables', *JHA* 17 (1986), 89–98). The manuscripts containing this Alfonsine star catalogue have been ignored in the list below. Likewise, other star catalogues excerpted from the *Almagest* and adjusted for dates posterior to the Alfonsine tables (and possibly deriving from them) have been ignored. Two examples of these occur in the Ptolemaic MSS →Melk, SB, 601, f. 112r–123v (adjusted for 1424), and →Vatican, BAV, Pal. lat. 1376, f. 194r–207v (adjusted for 1444).

Note 2 Another section of the *Almagest* in Gerard's translation which circulated independently is the second part of the preface containing 33 proverbs ascribed to Ptolemy (inc. 'Hec sunt de disciplinis et sapientiis Ptolemei huius. Conveniens est intelligenti pro Deo verecundari cum ea que non sunt grata…'). This section occurs for instance in MSS Cesena, BCM, Piana 3.171, s. XIV, f. 3r; Munich, BSB, Clm 9683, s. XIII–XIV, f. 61vb–62rb; Munich, BSB, Clm 15723, s. XIV, f. 94r; Oxford, SJC, 188, s. XV, f. 96v; and Vatican, BAV, Pal. lat. 1046, s. XIV, f. 53rb–54va. These manuscripts have not been included in the list below and no attempt has been made to locate all of them.

Text ‘(Paris, BnF, lat. 14738) (1r–1v) **[PREFACE]** Quidam princeps nomine Albuguafe in libro suo, quem scientiarum elect<ionem> et verborum nominavit pulcritudinem, dixit quod hic Ptholomeus fuit vir in disciplinarum scientia prepotens, preminens aliis, in duabus artibus subtilis, id est geometria et astrologia, et fecit libros multos — anno vite sue LXXVIII°. Haec sunt de disciplinis et sapientiis Ptholomei huius: Conveniens est intelligenti pro Deo — propinque vero non dulcescunt. Liber hic precepto Maimonis regis Arabum — et motuum qui sunt in caelo conscripsit. In hoc autem libro sunt XIII distinctiones, in unaquaque quarum scientie huius capitula continentur, que in uniuscuiusque earum principio dicam. (1v–17r) **[BOOK I]** In prima autem dictione sunt XIIII capitula… Capitulum XIIII de scientia quantitatis arcuum equationis diei qui elevatur in spera directa cum arcubus orbis signorum datis. Ecce ubi initium primi capituli prime dictionis dedit. Bonum, Scire, fuit quod sapientibus non deviantibus visum est cum partem speculationis a parte operationis diviserunt, que sunt due sapientie partes — speram rectam absque declinatione. Expleta est dictio prima. (17r–41r) **[BOOK II]** Incipit secunda <dictio> libri Almagesti Ptholomei Phludensis, cuius capitula sunt XIII … (17v) Capitulum primum de scientia habitabilium terre. Et post ea que narravimus in dictione prima Almagesti de forma tocius et communitate — ex eis que secuntur occidentem a loco altero. Expleta est dictio secunda libri Almagesti in qua sunt figure XX: arcus orbis signorum… et ad principium Arietis CCXCII XX. (41r–55v) **[BOOK III]** Dictio tercia libri Almagesti incipit, in qua sunt capitula X… (41v) Capitulum primum de scientia quantitatis longitudinis anni et numero dierum eius. Postquam declaravimus in his que precesserunt hanc distinctionem summam eorum que premittenda erant — et per motum suum diversum in tercia parte et octavo minuto Piscis fere. Expleta est dictio tercia Almagesti. Cum additis super annos… per quos intrabis in hunc librum (followed by a table: Ferie annorum — Reductio erarum). (55v–75r) **[BOOK IV]** Dictio quarta libri Almagesti. Capitulum primum ex quibus… Capitulum primum ex quibus considerationibus oportet investigationes Lune. Iam narravimus et demonstravimus in dictione que est ante hanc totum quod contingit in motu Solis — (74v) has eclipses convenientes modo quem narravimus. (75r) Expletum undecimum capitulum quod est ultimum dictionis quarte Almagesti. (75r–93v) **[BOOK V]** Dictio quinta libri Almagesti XIX capitula continens… Capitulum primum de artificio instrumenti ex armillis quo accipiuntur stelle et sciuntur loca earum in longitudine et latitudine. Inicium libri primi. Que vero accidunt ex applicatione Lune cum Sole in coniunctionibus et oppositionibus que sunt in eis ex eclipsibus — XXXV partes et sexta partis, et hoc est quod debuimus demonstrare. (93v–112r) **[BOOK VI]** Dictio sexta Almagesti in qua sunt capitula XIII … Capitulum primum de coniunctionibus et impletionibus. Postquam sequitur quod iam precessit positio libri in applicationibus eclipsium que sunt Solis et Lune — (110v) et fines ini[ni]ciorum eclipsis et complementorum (followed by two figures and a table, f. 110v–111v). (112r) Expleta est dictio sexta. (112r–127r) **[BOOK VII]** Capitulum primum de hoc quod longitudo… Capitulum primum et cum eo incipit dictio septima Almagesti Ptholomei de stellis fixis. Et postquam narravimus in dictionibus que hanc precedunt dictionem ea que accidunt in spera recta et in spera declivi — (118r) est minus illa quantitate et ita est descriptio tabularum (followed by the star catalogue, f. 118v–127r). (127v–140v) **[BOOK VIII]** Distinctio octava incipit cuius sunt capitula VI. Capitulum primum de affirmatione stellarum fixarum… (star catalogue, f. 127v–135v) … (136r) Capitulum secundum de modo orbis lactei nominati maiarati, id est arca. Loca vero stellarum fixarum secundum suum ordinem — ex eo quod est in figuris divisionis

inclinationum Lune. Expleta est dictio octava libri Almagesti. (140v–157v) **[BOOK IX]** Dictio nona et sunt in ea XI capitula… Capitulum primum libri noni Ptholomei in Almag<esto> de ordinibus sperarum Solis et Lune et quinque stellarum retrogradarum. Quantum fuit possibile aliquem loci de stellis fixis et speciebus scientie habitudinum earum secundum quantitatem — addunt VI partes Libre que fuerunt in tempore considerationis super partem unam et sextam partis Libre. Explicit dictio nona. (157v–168r) **[BOOK X]** Incipit dictio decima in qua sunt capitula decem… Capitulum primum libri decimi in declaratione longitudinis longioris stelle Veneris. Radices secundum quas agitur in stella Mercurii et quantitates diversitatum et preter illud etiam summam motuum et revolutionium eius — posito locorum super XVI partes et XL minuta Cancri et illud est quod voluimus ostendere. Expleta dictio decima libri Ptholomei qui dicitur Almagesti. (168r–184r) **[BOOK XI]** Incipit dictio undecima in qua sunt XII capitula… Incipit capitulum primum libri duodecimum (!) Almagesti. Et quia iam demonstravimus revolutiones motuum in stella Martis et radices eius — (184r) in illa hora pervenimus enim ad locum eius super quem videtur orbis signorum. Expleta est dictio undecima libri Almagesti. (184r–197r) **[BOOK XII]** Dictio duodecima in qua sunt IXa (!) capitula… (184v) Incipit capitulum primum libri duodecimi Almagesti Ptholomei. Postquam demonstrate sunt iste res tunc iam sequitur eas etiam consideratio in eo quod est cuiusque stellarum V erraticarum — et in quinta longitudines eius vespertinas, et hec est forma tabule (followed by the table). (197r–211r) **[BOOK XIII]** Capitulum primum in radicibus secundum quas agitur in cursibus stellarum V erraticarum in latitudine… Capitulum primum in… (end of sentence missing) (197v) Et quia remanserunt apud nos consequenter in scientia stellarum V erraticarum due res quarum una est scientia eius quod provenit ex cursibus in latitudine — et abbreviationem arrogantiam et collaudationem. Tunc iam sequitur et honestum est ut ponamus hic finem libro. Expleta est dictio XIIIa libri Ptholomei et cum ea completur liber Almagesti de disciplinalibus. Laus Deo. Amen.'

Bibl. Wüstenfeld 1877, 64 (no. 22); Steinschneider 1904, 19 (no. 36); Haskins 1927, 104–08; M. Alonso, 'La tercera version del Almagesto en el siglo XII', *Al-Andalus* 10 (1945), 453–54; Carmody 1956, 15 (no. 1); Kunitzsch 1974, 83–112; Kunitzsch 1986–1991, II; Kunitzsch 1990, 203–10: 208–10; P. Kunitzsch, 'Gerhard von Cremona als Übersetzer des Almagest', in *Festgabe für Hans-Rudolf Singer, zum 65. Geburtstag am 6. April 1990*, ed. M. Forstner, Frankfurt/Main-Bern-New York-Paris, 1991, 347–58 (reprinted in Kunitzsch 2004, II); P. Kunitzsch, 'Gerard's Translations of Astronomical Texts, Especially the *Almagest*', in *Gerardo da Cremona*, ed. P. Pizzamiglio, Cremona, 1992, 71–84 (reprinted in Kunitzsch 2004, I); C. Burnett, 'The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century', *Science in Context* 14 (2001), 249–88: 277 (no. 22) (reprinted in Burnett 2009, VII); C. Burnett, 'Why Study Ptolemy's *Almagest*? The Evidence of MS Melbourne, State Library of Victoria, Sinclair 224', *La Trobe Journal* 81 (2008), 127–43; J. N. Crossley, 'Ptolemy's *Almagest*: Its Dates and the Dating of Oxford, All Souls College, ms. 95', *La Trobe Journal* 81 (2008), 118–26; C. Burnett, '"Ptolemaeus in Almagesto dixit": The Transformation of Ptolemy's *Almagest* in its Transmission via Arabic into Latin' in *Transformationen antiker Wissenschaften*, eds G. Toepfer, H. Böhme, Berlin-New York, 2010, 115–40; P. Kunitzsch, 'Translators' Errors in the *Almagest*, Arabic and Latin', in *Adorare caelestia, gubernare terrena: Atti del colloquio internazionale in onore di Paolo Lucentini (Napoli, 6–7 Novembre 2007)*, eds P. Arfé, I. Caiazzo, A. Sannino, Turnhout, 2011, 283–93; Zepeda 2013, 28–61 and 130–44;

C. P. E. Nothaft, 'A Reluctant Innovator: Graeco-Arabic Astronomy in the *Computus* of Magister Cunestabulus (1175)', *Early Science and Medicine* 22 (2017), 24–54; Zepeda 2020; S. Zieme, 'Gerard of Cremona's Latin Translation of the *Almagest* and the Revision of Tables', *Journal for the History of Astronomy* 54 (2023), 3–33; Georges (forthcoming).

Modern ed. None, except for Book I, ed. E. Nicolai, *La tradizione greco-latina e arabo-latina del I libro dell'Almagesto. Saggio di analisi e traduzione*, PhD dissertation, Università di Padova, 2010, 201–24 (from ed. Venice 1515); the preface, ed. and tr. Burnett, 'Ptolemaeus in Almagesto', 125–30; ch. I.1 in its three versions, ed. Burnett, 'Ptolemaeus in Almagesto', 131–39; the star catalogue in VII.5-VIII.1, ed. Kunitzsch 1986–1991, II; the Menelaus Theorem in I.12, ed. Zepeda 2013, 361–71; and a selection of marginalia in connection with the Menelaus Theorem from nine manuscripts, ed. Zepeda 2013, 372–432. A critical edition by Colette Dufossé is forthcoming.

EDS Venice, Petrus Liechtenstein, 1515

MSS Bergamo, BCAM, MA 388, s. XV, f. 48v–49r (preface)
Berlin, SBPK, lat. fol. 753 (Görres 72), s. XV, f. 2r–236v
Bruges, OB, 519, s. XIII, f. 1r–257r
Bruges, OB, 520, s. XIV–XV, f. 120r–135v (incomplete star catalogue)
Cambrai, BM, 953 (851), s. XIII, f. 1ra–330ra
Chicago, LUC–ECML, UA2020.06, s. XIII, f. [1]r–[1]v (fragments VIII.3–4)
Cracow, BJ, 589, s. XV, f. 1r–208v
Cracow, BJ, 590, s. XIV, f. 1ra–142v
Cracow, BJ, 619, s. XIV–XV, f. 10r–272r
Erfurt, UFB, Dep. Erf. CA 2º 375, s. XIV, f. 85r–88r and 93r–112r (I.9-II.12)
Erfurt, UFB, Dep. Erf. CA 4º 349, s. XIV, f. 108r–110v (preface and chapter index I–VII)
Florence, BML, Conv. Soppr. 414, s. XIII, f. 46r–60r (star catalogue)
Florence, BML, Plut. 89 sup. 45, s. XIII, f. 1ra–183va
Florence, BML, Plut. 89 sup. 57, s. XIII, f. 1r–100v (I–VI.5)
Florence, BNC, Conv. Soppr. A.IV.1678, s. XV, f. 1r–192v
Florence, BNC, Conv. Soppr. J.III.24 (San Marco 177), s. XIII, f. 1ra–76rb
Florence, BNC, Conv. Soppr. J.IV.20 (San Marco 182), s. XIV–XV, f. 1r–140r (I–IX.4)
Florence, BNC, Magliabech. XI.114, s. XIV–XV, f. I/21r–36v (star catalogue)
Klosterneuburg, SB, 682, s. XV, f. 1r–224r
London, BL, Burney 275, s. XIV, f. 390va–560vb
London, BL, Harley 625, s. XIV, f. 1v–6v (star catalogue)
London, BL, Harley 625, s. XIV, f. 173r–174v (preface and chapter index)
London, BL, Sloane 2795, s. XIII, f. 1r–86v (III.10-X.1)
Madrid, BN, 10113, s. XIII, f. 1ra–134r
Manchester, JRL, 66, s. XV, f. 1r–169r
Melbourne, SLV, RARES 091 P95A, s. XIII, f. 1ra–173va
Melk, SB, 601, s. XV, f. 199ra–209r (preface, I.1–12 and selected tables)
Memmingen, SA, 2º 2,33, s. XV, f. 1r–148v
Naples, BN, VIII C 49, s. XIII, f. 83r–97r (star catalogue)
New Haven, YU-BRBML, Beinecke 1150, s. XV, f. 8r–8v (preface)
Nürnberg, GNM, 42555, s. XIII, f. 1r–12v (fragments IX.4 and IX.9-XI.5)

Nürnberg, SB, Cent. III 25, s. XV, f. 1r–92v
Oxford, ASC, 95, s. XIII, f. 1ra–120vb
Oxford, BL, Digby 57, s. XIV, f. 142r–143r (preface and chapter index)
Oxford, BL, Digby 190, s. XIII–XIV, f. 202r–209r (excerpts II.6, II.8, III.10, V.16, IV.3)
Oxford, BL, Laud. Misc. 644, s. XIII, f. 210rb–210vb (preface)
Oxford, NC, 281, s. XIII, f. 2r–242v
Paris, BnF, lat. 7254, s. XII, f. 1r–144r
Paris, BnF, lat. 7255, s. XIII, f. 1r–147r
Paris, BnF, lat. 7256, s. XIII, f. 1ra–163vb
Paris, BnF, lat. 7257, s. XIII, f. 2ra–109v
Paris, BnF, lat. 7258, s. XIII–XIV, f. 1r–334r
Paris, BnF, lat. 7259, s. XIV–XV, f. 2ra–210va
Paris, BnF, lat. 7260, s. XV, f. 1r–160v
Paris, BnF, lat. 7268, s. XIII, f. 1r–104v (II.3-XI.1)
Paris, BnF, lat. 7292, s. XV, f. 334r–345v (excerpts I.2, I.8, II.9–10, V.19, II.11–13, V.19)
Paris, BnF, lat. 14738, s. XII, f. 1r–211va
Paris, BnF, lat. 16200, s. XIII, f. 1ra–191vb
Paris, BnF, lat. 16657, s. XIII, f. 133r–146v (star catalogue)
Paris, BnF, lat. 17864, s. XIII–XIV, f. 1r–116v
Parma, BP, 718–720, s. XIII, f. 74r–271r
Salamanca, BU, 2044, s. XVI, f. 1r–230v
Salisbury, CL, H.1.29 + ZC2.8.10, s. XIII, pp. 1–6 (fragments II.1–2, 3 and 6–7)
San Marino (CA), HL, HM 65, s. XIII, f. 1r–270v
St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 252va–253ra (preface)
Vatican, BAV, Barb. lat. 173, s. XIII–XIV, f. 1ra–185ra
Vatican, BAV, Barb. lat. 182, s. XV, f. 3ra–99rb
Vatican, BAV, Barb. lat. 336, s. XV, f. 1ra–297ra
Vatican, BAV, Pal. lat. 1365, s. XIV, f. 1r–206r
Vatican, BAV, Pal. lat. 1377, s. XIV, f. 183r–194v (star catalogue)
Vatican, BAV, Vat. lat. 2057, s. XII–XIII, f. 1r–196r
Vatican, BAV, Vat. lat. 6788, s. XIII, 1r–178r
Venice, BNM, lat. VI.20 (3063), s. XIV, f. 129r–130v (excerpt I.2–8)
Venice, BNM, lat. VIII.10 (3266), s. XIII, f. 1r–188r
Vienna, ÖNB, 4799, s. XV, f. 1ra–77va
Wolfenbüttel, HAB, 147 Gud. Lat. 4º (4451), s. XIII, f. 3ra–161vb
Wroclaw, BU, R 43, s. XIII, f. 1ra–166rb
[ZZ] *olim* Robert B. Honeyman Jr., no. 14, s. XIII, pp. 1–354

A.1.3. *Almagesti*, tr. ʿAbd al-Masīḥ of Winchester

This translation, also known as the 'Dresden *Almagest*', was made from the Arabic (in Thābit Ibn Qurra's version) by ʿAbd al-Masīḥ of Winchester ('Wittomensis/Wintomiensis/Wittoniensis/Wuttoniensis Ebdelmessie'). The unique manuscript, copied towards the middle of the thirteenth century, probably in Paris, includes the

first four books only and omits all tables. The translator, ʿAbd al-Masīḥ of Winchester, is not otherwise known, but his technical terminology and peculiar alphanumerical notation based on a Latin abjad are uniquely shared by another scholar, Stephen of Pisa and Antioch, who is the author of the *Liber Mamonis*, an astronomical work in four books written sometime after 1127. As Grupe showed (*Stephen of Pisa and Antioch*, 11–12), ʿAbd al-Masīḥ developed his alphanumerical notation out of Stephen's, so that his translation of the *Almagest* must be posterior to the *Liber Mamonis*. What has not been noted so far is a possible link between the *Liber Mamonis* and Winchester provided by the Latin translation of a lost Hebrew text written at Winchester, in all likelihood by Abraham Ibn Ezra *c.* 1158–1160. In this text, the author casts horoscopes for Winchester and says that he calculated the planetary positions not only according to his own tables of Winchester, but also according to 'Albategni' [al-Battānī], one 'Almamoni', 'Alzophi' [al-Ṣūfī] and one 'Almazkar' (see S. Sela, C. Steel, P. Nothaft, D. Juste, C. Burnett, 'A Newly Discovered Treatise by Abraham Ibn Ezra and Two Treatises Attributed to al-Kindī in a Latin Translation by Henry Bate', *Mediterranea. International Journal on the Transfer of Knowledge* 5 (2020), 193–305: 251). The reference to 'Almamoni' has not been elucidated, but it could well denote the *Liber Mamonis*, which would then have reached Winchester by *c.* 1158–1160. This hypothesis receives support from the fact that Abraham Ibn Ezra was active in Pisa (Stephen's native city) *c.* 1143, when he drew up the tables of Pisa, the very tables that served as a model for the tables of Winchester.

Text '(ed. Grupe) De prologo. De ordine eorum que sunt in hoc libro... (chapter index). **[BOOK I]** Preclare fecerunt qui corrigentes scienciam philosophie, o Syre, diviserunt theoricam partem philosophie a practica. Nam si pars practice antequam — et alii quadrantes circuli signorum sunt ut ille quadrans. Explicit primus sermo libri mathematice Ptolomei qui nominatur Megali xintaxis astronomie translacione dictamine philophonia Wittomensis Ebdelmesie. **[BOOK II]** De loco habitationis terre aput nos... (chapter index). Postquam ostendimus in sermone hunc precedente qualitates universales tocius terre et celi — et quod habebimus sunt hore quas querimus. Explicit secundus sermo libri mathematice Ptolomei qui prenominatur Megali xintaxis sive astronomie translacione Wintomiensis Ebdelmessie. **[BOOK III]** Primum in mensura anni... (chapter index). Postquam ostendimus in duobus sermonibus huic precedentibus universalia preponenda de qualitatibus celi et terre — in C partibus et H sexagenariis Piscium. Explicit tercius sermo libri mathematice Ptolomei qui prenominatur Megali xintaxis astronomie philophonia translacione dictaminis Wittoniensis Ebdelmessie. **[BOOK IV]** Qua consideracione sciendus sit motus Lune... (chapter index). Postquam ostendimus in sermone huic preposito omnia que conveniunt motui Solis — et invenimus illas eclipses quas conmemoravimus concordes fundamenti. Phylophonia Wuttoniensis Ebdelmessie explicit quartus sermo libri mathematice Ptholomei qui prenominatur Megali xintaxis sive astronomie translacione dictaminis.'

Bibl. Björnbo 1909, 100 (no. 20); J. L. Heiberg, 'Noch einmal die mittelalterliche Ptolemaios-Übersetzung', *Hermes* 46 (1911), 207–16: 215–16; Haskins 1927, 108–10; Kunitzsch 1990, 208;

C. Burnett, ''Abd al-Masīḥ of Winchester', in Nauta/Vanderjagt 1999, 159–69; C. Burnett, 'Antioch as a Link between Arabic and Latin Culture in the Twelfth and Thirteenth Centuries', in *Occident et Proche–Orient: Contacts scientifiques au temps des croisades*, eds A. Tihon, I. Draelants, B. van den Abeele, Louvain-la-Neuve, 2000, 1–78: 12–13 (reprinted in Burnett 2009, IV); C. Burnett, 'The Transmission of Arabic Astronomy via Antioch and Pisa in the Second Quarter of the Twelfth Century', in *The Enterprise of Science in Islam: New Perspectives*, eds J. P. Hogendijk, A. I. Sabra, Cambridge (Mass.), 2003, 23–51: 23–36; R. Lorch, *Thābit ibn Qurra. On the Sector-Figure and Related Texts*, Augsburg, 2008, 355–57 and 362–73; E. Nicolai, *La tradizione greco-latina e arabo-latina del I libro dell'Almagesto. Saggio di analisi e traduzione*, PhD dissertation, Università di Padova, 2010, 37–67; D. Grupe, 'The "Thābit-Version" of Ptolemy's *Almagest* in MS Dresden Db.87', *Suhayl* 11 (2012), 147–53; D. Grupe, *The Latin Reception of Arabic Astronomy and Cosmology in Mid-Twelfth-Century Antioch: The* Liber Mamonis *and the Dresden* Almagest, PhD dissertation, The Warburg Institute, 2013; Zepeda 2013, 28 n. 60; D. Grupe, *Stephen of Pisa and Antioch: Liber Mamonis. An Introduction to Ptolemaic Cosmology and Astronomy from the Early Crusader States*, Cham, 2019, 10–12; D. Grupe, 'Manuscript Jaipur 20 and the Arabic Translation of Ptolemy's Almagest by Thābit ibn Qurra', in *The First International Prof. Dr Fuat Sezgin Symposium on History of Science in Islam Proceeding Book*, eds F. Başar, M. Kaçar, M. C. Kaya, A. Z. Furat, Istanbul, 2020, 139–48.

Modern ed. Grupe, *The Latin Reception*, 275–394 (with English translation). Book I had already been edited by Nicolai, 181–200.

EDS ---

MSS Dresden, SLUB, Db. 87, s. XIII, f. 1r–71r

A.1.4. *Almagesti*, tr. George of Trebizond

Translated from the Greek by George of Trebizond, who simultaneously wrote an extensive commentary on the whole text (C.1.19). The two works were completed in December 1451 and presented to Pope Nicholas V, who had commissioned the translation. But the pope was dissatisfied with the commentary and rejected the dedication altogether. Later on, George addressed both the translation and the commentary successively to the Venetian patrician Iacopo Antonio Marcello in 1460–1462, to Mehmed II the Conqueror in 1466 and to Matthias Corvinus in 1467. After George died, his son Andreas dedicated both works to Pope Sixtus IV in 1480–1481. George's Greek exemplar for the translation was a manuscript from Cardinal Bessarion's library, which Fabio Acerbi identified with Venice, BNM, Fondo antico gr. Z. 310 (see D. Speranzi, 'Scritture, libri e uomini all'ombra di Bessarione. I. Appunti sulle lettere del Marc. Gr. Z. 527 (coll. 679)', *Rinascimento* 57 (2017), 137–95: 184 n. 184). MS Vatican, BAV, Vat. lat. 2054 contains George's autograph corrections. George's translation is the source text of commentaries C.1.25–26 and C.1.29.

Text '(Vatican, BAV, Vat. lat. 2054) (1r–3v) **[PREFACE TO SIXTUS IV]** Ad sanctissimum dominum nostrum Sixtum Quartum pont<ificem> max<imum>, Andree Trapezuntii, Georgii filii, in paternam Almagesti Ptolomaei traductionem prefatio. Evolventi mihi nuper libros patris mei, Georgii Trapezuntii, viri optimi et omni doctrinarum genere insignis — Arthaxerxem offerentis studium magnopere comprobasse. (3v–20r) **[BOOK I]** Magne compositionis Ptolomei libri a Georgio Trapezuntio e Graeco conversi incipiunt. Peroptime mihi videntur, o Syre, qui bene philosophati sunt, speculativam philosophie partem ab activa separasse. Nam etsi activae accidat parti — poenitus omnibus accidunt. Finis primi libri feliciter. (20v–45v) **[BOOK II]** Incipit liber secundus Ptolomei Magne compositionis. De universali orbis terrarum qui a nobis habitatur. Cap<itulum> I. Quoniam iam in primo huius constitutionis libro ea perstrinximus — quando occidentalior quam Alexandria est. Finis secundi libri feliciter. (45v–61r) **[BOOK III]** Incipit liber tertius. De magnitudine anni temporis. Capitulum primum. Cum in superioribus quae universaliter ac mathematice de caelo — et sexagesimas octo proxime [followed by the erased lines]. Finis tertii libri M. C. P. (61r–78v) **[BOOK IV]** Incipit liber quartus Ptolomei Magnae compositionis. A quibus observationibus Lune accidentia examinanda sunt. Cum iam in precedenti libro que Solis motui accidunt — rationibus nostris convenire videamus. Finis quarti libri. (78v–99r) **[BOOK V]** Incipit liber V Magne compositionis Claudii Ptholomei. De constructione instrumenti quod astrolabium vocant. Verum ad oppositiones quidem atque coniunctiones et eclipsis que in eis — nobis erant invenienda (99v–119r). **[BOOK VI]** Incipit liber VI Magnae compositionis Ptolomei. De coniunctionibus Solis et Lunae. Cum vero deinceps de coniunctionibus atque oppositionibus eclipticis Lunae ac Solis — inclinationem facture sint. (119r–137r) **[BOOK VII]** Incipit liber VII feliciter Ptolomei. Quod stelle non erratice semper eundem inter se situm servant. Quoniam in superioribus tam recte quam declivis — sexte 2. Finit VII liber. (138r–148r) **[BOOK VIII]** Incipit liber octavus. Expositio tabularis constellationis hemisperii australis. Fulgens earum que sunt in extremitate — et Lune in ipsis ex parte declinationibus. (148v–168r) **[BOOK IX]** Liber VIIII Magne compositionis Ptholomei incipit. De ordine globorum Solis, Lune ceterorumque stellarum erraticarum. Verum que de fixis summatim quantum ab apparentibus — ab observationis gradibus Libre sex. (168r–181r) **[BOOK X]** Incipit liber X Magne compositionis Ptolomei. Demonstratio maxime longitudinis stelle Veneris. Sed Mercurii quidem suppositionis inequalitatum — tempore gradus Cancri 16.40. (181r–198v) **[BOOK XI]** Liber XI Magne compositionis Ptolomei incipit. Demonstratio excentricitatis et maxime longitudinis stelle Iovis. Demonstratis iam motibus periodicis et locis — ad apparentem eius locum perveniemus. (199r–213v) **[BOOK XII]** Incipit liber XII Magne compositionis Ptolomei. De iis que premittuntur ad regressus planetarum demonstrandos. His demonstratis sequitur ut regressus etiam qui singulis quinque — (213r) quintus vespertinas. Est autem tabula haec [followed by the table f. 213v]. (214r–232r) **[BOOK XIII]** Incipit XIII liber et ultimus Magne compositionis Pto<lomei>. De suppositionibus que ad motus latitudinis quinque planetarum pertinent. Verum cum ad absolvendum quinque planetarum doctrinam duo hec restent — ad ostentationem accomodatus petebat pertractatis idoneum hic modum ac finem haec est compositio consecuta.'

Bibl. P. L. Rose, *The Italian Renaissance of Mathematics. Studies on Humanists and Mathematicians from Petrarch to Galileo*, Genève, 1975, 41–42; Monfasani 1984, 285 (preface to Mehmed II), 748–50 (text) and 786–89 (preface to Sixtus IV); L. Giorgetti, 'Da Giorgio

Trapezunzio a Luca Gaurico intorno a Tolomeo', *Roma nel Rinascimento* (2002), 201–12: 203; M. Shank, 'The *Almagest*, Politics, and Apocalypticism in the Conflict between George of Trebizond and Cardinal Bessarion', *Almagest* 8 (2017), 49–83.

Modern ed. None, except the preface to Mehmed II, ed. A. Mercati, 'Le due lettere di Giorgio di Trebisonda a Maometto II', *Orientalia Christiana Periodica* 9 (1943), 65–99: 85–92; and Andreas of Trebizond's preface to Sixtus IV, ed. M. Fuiano, 'Astrologia ed umanesimo in due prefazioni di Andrea di Trebizonda', *Atti dell'Accademia Pontaniana*, Nuova Serie 17 (1968), 385–412: 399–405, and ed. Monfasani, 789–95.

EDS Venice, Luceantonius Junta, 1528, sig. A_3r–141r (with preface to Sixtus IV)
Cologne, Publisher unknown, 1537, sig. B_ir–[E_{iv}]r (star catalogue)
Basel, Henricus Petri, 1541, sig. a_4r–369 (with preface to Sixtus IV)
Basel, Henricus Petri, 1551, sig. ††4r–326 (with preface to Sixtus IV)

MSS Cesena, BCM, Plut. S.XXVII.1, s. XV, f. 1r–209v
Cracow, BJ, 591, s. XV, f. 2r–113r (I–VI.6)
Cracow, BJ, 592, s. XV, f. 1r–150v (I–VII.1)
Florence, BML, Plut. 30.6, s. XVI, f. 1r–194r (with preface to Sixtus IV)
Nürnberg, SB, Cent. V 62, s. XV, f. 6r–261r
Paris, BnF, lat. 7261, s. XV, f. 1r–254v
Paris, BnF, lat. 7262, s. XV, f. 1r–255v
Vatican, BAV, Vat. lat. 971, s. XV, f. 2r–4v (preface to Mehmed II only)
Vatican, BAV, Vat. lat. 2054, s. XV, f. 1r–232r (with preface to Sixtus IV)
Vatican, BAV, Vat. lat. 2055, s. XV, f. 1r–216r (with preface to Sixtus IV)
Vienna, ÖNB, 24, s. XV, f. 1r–212v

A.1.5. *Almagesti*, tr. Erasmus Reinhold

This translation, which includes Book I only, was made from the Greek by Erasmus Reinhold, who published it, together with the Greek original text, in Wittenberg in 1549. Reinhold added his own commentary (C.1.27), printed in the body of the text in italics and introduced by the word 'Scholion' written in Greek. As made clear in the note to the reader at the end of the text, this commentary uses and quotes passages from Theon of Alexandria's commentary on the *Almagest* (C.1.30). The Greek exemplar for both the *Almagest* and Theon's commentary was the *editio princeps* published by Simon Grynaeus and Joachim Camerarius in Basel in 1538. Reinhold dedicated the work to Christoph von Karlowitz (1507–1578), a diplomat and correspondent of Philipp Melanchthon and Joachim Camerarius.

Note The three Parisian editions (1556, 1557 and 1560) ignore the Greek text and reproduce the edition of 1549 faithfully, except that the whole text was printed in italics and that the word 'Scholion' was removed, so making it impossible to distinguish Ptolemy's text from Reinhold's commentary.

Text '(ed. Wittenberg 1549) Primus liber Magnae constructionis Ptolemaei. (45r) **[TEXT]** Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa... (47r) Caput I. De ordine huius doctrinae. Initium autem erit huius operis, haec consideratio, quomodo se tota terra universaliter habeat ad totum coelum... (51v) **[REINHOLD'S COMM.]** Σχόλιον. Vult Ptolemaeus non solum hoc demonstrare quod terra sit globosa — in qua aequinoctialis nusquam ad horizontem inclinat. **[REINHOLD'S NOTE TO THE READER]** Ad lectorem studiosum. Deo iuvante in proxima aeditione hanc institutam explicationem nostram rudiorem perpoliemus, et adiungemus reliqua ex Theone, quae ad Ptolemaei sententiam penitus intelligendam aliquid momenti adferunt, interea bene vale et hisce feliciter fruere. Laus Deo.'

Bibl. P. D. Omodeo, I. Tupikova, 'The Post-Copernican Reception of Ptolemy: Erasmus Reinhold's Commented Edition of the *Almagest*, Book One (Wittenberg, 1549)', *JHA* 44 (2013), 235–56; P. D. Omodeo, '*Utilitas astronomiae* in the Renaissance: The Rhetoric and Epistemology of Astronomy', in *The Structures of Practical Knowledge*, ed. M. Valleriani, Cham, 2017, 307–32: 310–12; P. D. Omodeo, I. Tupikova, 'Visual and Verbal Commentaries in Renaissance Astronomy: Erasmus Reinhold's Treatment of Classical Sources on Astronomy', *Philological Encounters* 3 (2018), 359–98: 376–90.

Modern ed. ---

EDS Wittenberg, Johannes Lufft, 1549, sig. 44r–123r
Paris, Gulielmus Cavellat, 1556, sig. 1r–76v
Paris, Gulielmus Cavellat, 1557, sig. 1r–76v
Paris, Gulielmus Cavellat, 1560, sig. 1r–76v
Wittenberg, Johannes Lufft, 1569, sig. 44r–123r

MSS ---

A.1.6. *Almagesti*, tr. Stephanus Gracilis

This translation of Book II by one Stephanus Gracilis was published by Gulielmus Cavellat in 1556 to supplement Erasmus Reinhold's translation of Book I (A.1.5), also published by Cavellat in the same year. The translation was prepared at the request of Jean Magnien (Johannes Magnenius), professor of mathematics at the Collège Royal in Paris in 1555–1556.

Text '(ed. Paris 1556) (2r) **[TRANSLATOR'S PREFACE]** St<ephanus> Gracilis Io<hanni> Magnenio medico longe praestantiss. et mathematicae scientiae regio apud Lutetiam professori. S. D. Magna certe tua laus est, Magneni doctiss<imi> qui summum semper studium — (4r) de re tota arbitratu iudicioque tuo statuas. Vale. Lutetiae, idibus Aprilis 1556. (4v) **[CHAPTER INDEX]** Argumentum huius libri in sua capita distinctum. De universo situ terrae... (5r) **[TEXT]** Claudii Ptolemaei Mathematicae constructionis liber secundus. De universo situ terrae, quae a nobis incolitur. Caput I. His primo constructionis huius libro exposuis, quae de universi habitudine summatim anticipanda errant — (62r) quaesitus fuerit locus, sin occidenti, imminutio. (62v) **[TRANSLATOR'S NOTE TO THE READER]** St<ephanus> Gracilis lectori ingenuo. Accipe igitur, candide lector, hanc menstrui sane laboris lucubratiunculam — temere mutandum decernat. Vale.'

Bibl. I. Pantin, 'Teaching Mathematics and Astronomy in France: The *Collège Royal* (1550–1650)', *Science & Education* 15 (2006), 189–207: 191; P. D. Omodeo, I. Tupikova, 'Visual and Verbal Commentaries in Renaissance Astronomy: Erasmus Reinhold's Treatment of Classical Sources on Astronomy', *Philological Encounters* 3 (2018), 359–98: 380.

Modern ed. ---

EDS Paris, Gulielmus Cavellat, 1556, sig. 1r–63r

MSS ---

A.1.7. *Almagesti*, tr. Henry Savile

This translation is part of Savile's translation of Theon of Alexandria's *Commentary on the Almagest*. See C.1.30.3.

A.1.8. *Almagesti*, tr. Giambattista della Porta

This translation is part of Giambattista della Porta's translation of Theon of Alexandria's *Commentary on the Almagest*. See C.1.30.7.

A.1.9. *Almagesti*, tr. George Fleming and Alessandro Marchetti

This translation is part of Fleming's and Marchetti's translation of Theon of Alexandria's *Commentary on the Almagest*. See C.1.30.9.

A.2. *Tetrabiblos* [Greek]

The *Tetrabiblos* (Greek: *Μαθηματικὴ τετράβιβλος σύνταξις*, 'Mathematical Composition in Four Books', or *Τὰ πρὸς Σύρον ἀποτελεσματικά*, 'The Prognostics Addressed to Syrus'; Arabic: *al-Maqālāt al-arbaʿ*, 'the Four Treatises', or *Kitāb al-Arbaʿ maqālāt*, 'The Book of the Four Treatises') comprises four books. Book I provides a philosophical justification of astrology (chs 1–3) and reviews the basic astrological doctrines. Book II deals with mundane or general astrology and Books III–IV with individual astrology, essentially genethlialogy. The *Tetrabiblos* was translated at least three times into Arabic, by al-Biṭrīq and/or ʿUmar ibn al-Farrukhān in the late-eighth or early-ninth century, by Ibrāhīm ibn al-Ṣalt in a revision by Hunayn ibn Iṣḥāq and Thābit ibn Qurra in the ninth century, and by an anonymous translator at an unknown date (version partially extant in MS Istanbul, Üniversitesi, A 6141). There are 13 extant Latin translations made between the twelfth and the seventeenth century, five from the Arabic (A.2.1–5) and eight from the Greek (A.2.6–13).

Bibl. **General:** Delambre 1817, II, 543–44; F. Boll, 'Studien über Claudius Ptolemäus. Ein Beitrag zur Geschichte der griechischen Philosophie und Astrologie', *Jahrbücher für Classische Philologie*, Suppl. 21 (1894), 49–244: 111–217; W. J. Tucker, *Ptolemaic Astrology. A Complete Commentary of the Tetrabiblos of Claudius Ptolemy*, Sidcup, 1961; Gundel/Gundel 1966, 205–13; M. Riley, 'Theoretical and Practical Astrology: Ptolemy and his Colleagues', *Transactions of the American Philological Association* 117 (1987), 235–56; M. Riley, 'Science and Tradition in the *Tetrabiblos*', *Proceedings of the American Philosophical Society* 132 (1988), 67–84; L. Taub, *Ptolemy's Universe. The Natural Philosophical and Ethical Foundations of Ptolemy's Astronomy*, Chicago, 1993, 129–34; B. Besnier, 'L'astrologie de Ptolémée', in *Signes et prédiction dans l'Antiquité. Actes du Colloque International Interdisciplinaire de Créteil et de Paris (22–23–24 mai 2003)*, ed. J. Kany-Turpin, Saint-Etienne, 2005, 167–91; Pedersen 2011, 400–03; G. Aujac, *Claude Ptolémée: Astronome, astrologue, géographe*, Paris, 2012, third edition (first edition 1993), 69–105; Tolsa 2013, 232–43; J. Feke, *Ptolemy's Philosophy. Mathematics as a Way of Life*, Princeton-Oxford, 2018, 168–87 and *passim*. **Specific:** R. Uhden, 'Das Erdbild in der Tetrabiblos des Ptolemaios', *Philologus* 88 (1933), 302–25; I. Dąmbska, 'La théorie de la science dans les oeuvres de Claude Ptolémée', *Organon* 8 (1971), 109–22: 117–19; F. A. Illiceramius, G. Bezza, 'Il problema di un recupero dell'astrologia classica nella lettura di una nuova edizione di Tolomeo', *Paideia* 41 (1986), 215–36; J.-F. Bara, 'Les morts violentes chez Vettius Valens et Ptolémée: calculs, présages et signes', *Mélanges de l'Ecole Française de Rome. Antiquité* 102 (1990), 829–44; S. Fazzo, 'Un'arte inconfutabile. La difesa dell'astrologia nello *Tetrabiblos* di Tolomeo', *Rivista di Storia della Filosofia* 46 (1991), 213–44; R. Martins, 'A influênca de Aristóteles na obra astrológica de Ptolomeu (o "Tetrabiblos")', *Trans/Form/Ação* 18 (1995), 51–78; W. Hübner, 'Astrologie et mythologie dans la *Tétrabible* de Ptolémée d'Alexandrie', in *Sciences exactes et sciences appliquées à Alexandrie*, eds G. Argoud, J.-Y. Guillaumin, Saint-Etienne, 1998, 325–45; E. Calderón Dorda, 'Ptolomeo, μαθηματικὸς ἀνήρ', in *Homo Mathematicus. Astrólogos Griegos y Romanos. Actas del Congresso Internacional sobre Astrólogos Griegos y Romanos (Benalmádena, 8–10 de Octobre de 2001)*, eds A. Pérez Jiménez, R. Caballero, Málaga, 2002, 103–22; J. Fernández Quintano, 'Acerca del carácter tropical del *Tetrabiblos*', in *Homo Mathematicus. Astrólogos Griegos y Romanos. Actas del Congresso Internacional sobre Astrólogos Griegos y Romanos (Benalmádena, 8–10 de Octobre de 2001)*, eds A. Pérez Jiménez, R. Caballero, Málaga, 2002, 123–42; J. Halbronn, 'Comparaison du *Tétrabible* attribué à Ptolémée et la *Mathesis* de Firmicus Maternus', in *Homo Mathematicus. Astrólogos Griegos y Romanos. Actas del Congresso Internacional sobre Astrólogos Griegos y Romanos (Benalmádena, 8–10 de Octobre de 2001)*, eds A. Pérez Jiménez, R. Caballero, Málaga, 2002, 143–54; G. Bezza, 'La Tétrabiblos de Ptolémée entre physique et mythologie', in *Cosmology Through Time. Ancient and Modern Cosmologies in the Mediterranean Area*, eds S. Colafrancesco, G. Giobbi, Milano, 2003, 91–98; J. Crane, 'Ptolemy's Digression: Astrology's Aspects and Musical Intervals', in *The Winding Courses of the Stars: Essays in Ancient Astrology*, eds C. Burnett, D. Greenbaum, Bristol, 2008 [*Culture and Cosmos* 11 (2007)], 211–27; J. Komorowska, 'Astrology, Ptolemy and *technai stochastikai*', *MHNH* 9 (2009), 191–204; T. Gee, *Strategies of Defending Astrology: A Continuing Tradition*, PhD dissertation, University of Toronto, 2012, 65–93; W. Hübner, 'Gender in Ptolemy's *Apotelesmatica*', *MHNH* 14 (2014), 147–66; G. Bezza, 'Saturn and Jupiter Conjunctions and General Astrology: Ptolemy, Abū Ma'shar and Their Commentators', in *From Māshā'allāh to Kepler: Theory and Practice in Medieval and Renaissance Astrology*, eds C. Burnett, D. G. Greenbaum, Ceredigion, 2015, 5–48;

J. Komorowska, 'Those Happy People: Arabia Felix and the Astrological *oikoumenē* of Claudius Ptolemaeus', in *The Routledge Handbook of Identity and the Environment in the Classical and Medieval Worlds*, eds R. F. Kennedy, M. Jones-Lewis, London, 2016, 353–72; A. Pérez Jiménez, 'Religión y astrología en el *Tetrabiblos* de Tolomeo o las servidumbres del sistema', in *Δεσμοὶ φιλίας. Bonds of Friendship. Studies in Ancient History in Honour of Francisco Javier Fernández Nieto*, eds J. C. Bermejo Barrera, M. García Sánchez, Barcelona, 2017, 243–57; C. Steel, 'What is the Advantage of Knowing the Future? Some Comments on Ptolemy's *Tetrabiblos*, I, 3', *Medioevo* 42 (2017), 31–55; C. Hall, 'Horoscopes of the Moon: Weather Prediction as Astrology in Ptolemy's *Tetrabiblos*', *Early Science and Medicine* 26 (2021), 231–53. **Influence – General:** D. Houlding, 'The Transmission of Ptolemy's Terms: An Historical Overview, Comparison and Interpretation', in *The Winding Courses of the Stars: Essays in Ancient Astrology*, eds C. Burnett, D. Greenbaum, Bristol, 2008 [*Culture and Cosmos* 11 (2007)], 261–307; C. de Amorim Machado, *O papel da tradução na trasmissão da ciência: o caso do* Tetrabiblos *de Ptolomeu*, PhD dissertation, Pontifícia Universidade Católica do Rio de Janeiro, 2010; S. Heilen, 'Ptolemy's Doctrine of the Terms and Its Reception', in Jones 2010, 45–93. **In Greek (Hellenistic/Byzantine, see also C.2.12, C.2.16, C.2.25 and C.2.40):** F. Boll, 'Beiträge zur Überlieferungsgeschichte der griechischen Astrologie und Astronomie', *Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Phil.-Hist. Klasse* 1899, 77–140: 80–97; S. Fazzo, 'Alessandro d'Afrodisia e Tolomeo: aristotelismo e astrologia fra il II e il III secolo d.C.', *Rivista di Storia della Filosofia* 43 (1988), 627–49; G. Bezza, 'Intorno ai primi commentatori del *Quadripartitum* tolemaico: il commento ascritto ad Eutocio d'Ascalona', *MHNH* 9 (2009), 265–72. **In Syriac:** B. Dimitrov, '"Fort. recte": Witnesses to the Text of Ptolemy's *Tetrabiblos* in Its Near Eastern Transmission', in Juste/van Dalen 2020, 97–113; B. Dimitrov, *Tetrabiblos Syriaca. A Case-Study in Graeco-Semitic Textual Transmission*, PhD dissertation, Philipps-Universität Marburg, 2020. **In Arabic:** M. Ullmann, *Die Natur- und Geheimwissenschaften im Islam*, Leiden, 1972, 282–83; Sezgin 1974–1979, VII, 43–44 (no. 1); C. de Amorim Machado, 'Uma breve história das traduções árabes do *Tetrabiblos* de Ptolomeu', *Exilium* 3 (2021), 121–48; F. Martorello, 'Sul Commento di al-Battānī al terzo libro del *Quadripartito* Tolemaico', in *Studi sull'arte dei decreti delle stelle in memoria di Guiseppe Bezza*, ed. F. Martorello, Sarzana-Lugano, 2022, 59–89; Burnett 2024. **In Hebrew:** Steinschneider 1893, II, 525–27; M. Benedetto, 'A Hebrew Version of Ptolemy's *Tetrabiblos*: *The Decrees of the Stars* by Judah ben Solomon ha-Cohen', *Iberia Judaica* 7 (2015), 111–20. **In Latin (see also A.2.1–13 and C.2):** M. Lejbowicz, 'Guillaume Oresme, traducteur de la *Tétrabible* de Claude Ptolémée', *Pallas* 30 (1983), 107–33; O. Pompeo Faracovi, 'The Return to Ptolemy', in *A Companion to Astrology in the Renaissance*, ed. B. Dooley, Leiden, 2014, 87–98; D. Juste, 'The Impact of Arabic Sources on European Astrology: Some Facts and Numbers', *Micrologus* 24 (2016), 173–94: 186–87 (no. 9); H. D. Rutkin, '*Optimus malorum*: Giovanni Pico della Mirandola's Complex and Highly Interested Use of Ptolemy in the *Disputationes adversus astrologiam divinatricem* (1496), A Preliminary Survey', in Juste/van Dalen 2020, 387–406; C. Steel, 'A Discussion on Ptolemy's Authority: Henry Bate's Prologue to His Translation of Ibn Ezra's *Book of the World*', in Juste/van Dalen 2020, 245–81.

Modern ed. The Greek original text was first published by Joachim Camerarius on Johannes Petreius's press in Nürnberg in 1535 (see ed. Nürnberg 1535). The text has received four critical editions: F. Boll, E. Boer, *Claudii Ptolemaei opera quae exstant omnia*, III.1: *ΑΠΟΤΕΛΕΣΜΑΤΙΚΑ*, Leipzig, 1940; F. E. Robbins, *Ptolemy: Tetrabiblos*, Cambridge

(Mass.)-London, 1940 (with facing English translation); S. Feraboli, *Claudio Tolomeo: Le previsioni astrologiche (Tetrabiblos)*, Milano, 1985 (with facing Italian translation); W. Hübner, *Claudii Ptolemaei opera quae exstant omnia*, III.1: *ΑΠΟΤΕΛΕΣΜΑΤΙΚΑ. Post F. Boll et Ae. Boer secundis curis*, Stuttgart-Leipzig, 1998. The *Tetrabiblos* has been translated into most modern Western languages. Besides the English and Italian translations just mentioned, see the French translation by P. Charvet, *Ptolémée: Le livre unique de l'astrologie. Astrologie mondiale et thèmes de naissance*, Paris, 2000 (based on Hübner's edition, with notes), and the Italian translation of Books I–II by G. Bezza, *Commento al primo libro della* Tetrabiblos *di Claudio Tolemeo. Con una nuova traduzione e le interpretazioni dei maggiori commentatori*, Milano, 1990 (reprinted 1992) (based on Boll/Boer's edition, with a thorough commentary) and G. Bezza, *Claudio Tolemeo: Il secondo libro del Quadripartitum con il commento di ʿAlī ibn Riḍwān. Introduzione, traduzione e note*, Lugano, 2014 (based on ed. Venice 1493, which includes Egidius de Tebaldis's and Plato of Tivoli's Latin translations, together with Haly Abenrudian's commentary, see C.2.2). The Arabic and Latin versions are unpublished, except for William of Moerbeke's translation (A.2.6).

A.2.1. *Quadripartitum*, tr. Plato of Tivoli

Translated from the Arabic (in the version by Ibrāhīm ibn al-Ṣalt revised by Hunayn ibn Iṣḥāq) by Plato of Tivoli in Barcelona in 1138, as stated in the colophon 'Et perfecta est eius translatio de Arabico in Latinum a Tiburtino Platone, cui Deus parcat, hora tercia XX^{a} die mensis Octobris, anno domini MCXXXVIII, XV die mensis Saphar, anno Arabum DXXXIII, in civitate Barchinona' (this colophon is present in six manuscripts: Arras, BM, 844; Cambridge, UL, Ii 3.3; Naples, BN, VIII D 2; Oxford, BL, Digby 51; Pommersfelden, GSB, 60; Vatican, BAV, Reg. lat. 1692). The name of the translator also occurs in the title of MS Paris, BnF, lat. 7320: 'Incipit liber... a Platone Tiburtino de Arabico in Latinum translatus.' Plato's translation is the source text of commentaries C.2.1, C.2.4, C.2.14, C.2.18, C.2.23 (Books III–IV) and C.2.34, and was also used in commentary C.2.21.

Note In addition to the early printed editions listed below, lemmas of Plato's translation were printed together with Haly Abenrudian's *Glosa super Quadripartito Tholomei* (C.2.2) in eds Venice, Bonetus Locatellus, 1493, sig. 2r–106v, and Venice, Octavianus Scotus, 1519, sig. [aa$_4$]r–96v. Books III and IV are also reproduced in full in Giuntini's *In duos posteriores Ptolemaei Quadripartiti libros absolutissima commentaria* (C.2.34).

Text '(ed. Venice 1484) (a$_2$r) Liber Quadripartiti Ptolomei, id est quattuor tractatuum, in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus, cuius primo tractatu sunt 24 capitula, incipit. (a$_2$r–b$_5$r) **[BOOK I]** Capitulum primum: In collectione intellectus scientie iudiciorum astrorum. Prohoemium. Rerum, Iesure, in quibus est pronosticabilis scientie stellarum profectio, magnas et precipuas duas esse deprehendimus. Quarum altera, que precedit et est fortior, est scientia Solis et Lune necnon

v stellarum erraticarum figuras demonstrans — debiles erunt et nullam fortitudinem habere putabuntur. (b_5r–c_7v) **[BOOK II]** Incipit subsequenter tractatus secundus libri 4 in quo sunt 13 capitula. Capitulum primum in istius scientie generali divisione. ($b_5$va) Eorum itaque in quibus premittenda sustentantur et quibus in inquisitione prognosticandi particularia uti oportet — nec igitur universali investigatione rerum generalium et particularium generali modo predicta sunt. In subsequentibus vero nativitatum prognosticationem velut ordo postulat explanabimus. (c_7v–e_5v) **[BOOK III]** Incipit tractatus 3 libri 4 Ptolomei in quo sunt 14 capitula. Prohoemium istius tractatus. Postquam accidentia generalia in his que ex nostra observatione premissa sunt — suarumque specierum multitudinem et augmentum adiuvabit. (e_6r–f_6r) **[BOOK IV]** Incipit tractatus quartus libri Alabra Ptholomei in quo sunt novem capitula. Incipit prologus. Dixit Ptholomeus: Rerum igitur in quibus ea que ante partum sunt et que in ipsius hora partus contigunt — secundum speciei rationalis existimationem in commixtione horum explanare proposuimus. Rebus itaque nativitatum generaliter explicatis hoc in loco huic libro finem imponere non incongruum existimamus. Explicit liber 4 Ptholomei in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus.'

Bibl. Wüstenfeld 1877, 40 (no. 3); Steinschneider 1904, 65 (no. 98h); Björnbo 1909, 99 (no. 17); Haskins 1927, 110; Carmody 1956, 18 (no. 10a); Burnett 2024.

Modern ed. None. The second book has been translated into Italian and commented upon by G. Bezza, *Claudio Tolemeo: Il secondo libro del Quadripartitum con il commento di ʿAlī ibn Riḍwān. Introduzione, traduzione e note*, Lugano, 2014 (on the basis of ed. Venice 1493, which also includes Egidius de Tebaldis's translation as part of Haly Abenrudian's *Glosa super Quadripartito Tholomei* (C.2.2)).

EDS Venice, Erhardus Ratdolt, 1484, sig. a_2r–[f_6]r
Paris, Joannes de Porta, 1519, sig. IIr–LIIv
Basel, Johannes Hervagius, 1533, second part, sig. 1–74
Nürnberg, Johannes Petreius, 1535, sig. aa_ir–[ff_{iv}]r (Books III–IV)
Basel, Henricus Petri, 1541, sig. 459–500 (Books III–IV)
Basel, Henricus Petri, 1551, sig. 404–438 (Books III–IV)
Basel, Johannes Hervagius, 1551, second part, sig. 1–74

MSS Arras, BM, 844 (47), s. XIII–XIV, f. 2ra–2vb (I.1–2)
Arras, BM, 844 (47), s. XIII–XIV, f. 58ra–75ra (truncated)
Bruges, OB, 520, s. XIII–XIV, f. 1r–45r (I–III.11)
Brussels, BR, 18678–18681, s. XIV, f. 59r–98v
Cambrai, BM, 955 (853), s. XIII, f. 41ra–128va
Cambridge, UL, Ii 3.3 (1767), s. XIII–XIV, f. 240ra–276va
Cambridge, UL, Kk 1.1 (1935), s. XIII, f. 62ra–96rb
Cesena, BCM, Plut. S.XXVII.3, s. XIII, f. 67ra–93rb
Cracow, BJ, 601, s. XV, f. 172r–176r (I.1–11 and title I.12)
Florence, BNC, Conv. Soppr. J.III.28 (San Marco 180), s. XIV, f. 1ra–19ra
Klosterneuburg, CB, 687, s. XIII, f. 74rb–101ra
Madrid, BN, 10015, s. XIII, f. 1ra–15rb
Madrid, BN, 10015, s. XIII, f. 16ra–18vb (IV.4–9)

Madrid, BN, 10053, s. XIII, f. 119ra–130vb (Books III–IV)
Munich, BSB, Clm 3857, s. XIII, f. 11va–43va
Naples, BN, VIII D 2, s. XV, f. 2r–43r
Nürnberg, SB, Cent. V 85, s. XV, f. 49r–78r
Oxford, BL, Digby 51, s. XII, f. 79ra–114va
Oxford, BL, Digby 75, s. XV, f. 92r–107v (I–II.3)
Oxford, BL, Digby 179, s. XIV, f. 3r–166r (in the margin)
Paris, BA, 1036, s. XIII, f. 71ra–72vb (I.9)
Paris, BnF, lat. 7302, s. XV, f. 1ra–102vb
Paris, BnF, lat. 7320, s. XIII, f. 61r–104v
Paris, BnF, lat. 7329, s. XIV, f. 60r–63r (II.4–10)
Paris, BnF, n.a.l. 693, s. XIV, f. 61r–92r
Pommersfelden, GSB, 60 (2633), s. XII–XIII, f. 1r–138r
Salamanca, BU, 2051, s. XIII, f. 37ra–55vb
Vatican, BAV, Barb. lat. 328, s. XV, f. 8r–70r and 76v–77r
Vatican, BAV, Pal. lat. 1188, s. XV, f. 130r–133v (excerpts)
Vatican, BAV, Pal. lat. 1420, s. XIII, f. 1r–34v
Vatican, BAV, Reg. lat. 1285, s. XIII, f. 103ra–138rb
Vatican, BAV, Reg. lat. 1692, s. XIII–XIV, f. 272ra (last lines only)
Vatican, BAV, Urb. lat. 267, s. XIV, f. 4ra–21rb
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 124ra–139ra
Vatican, BAV, Vat. lat. 7616, s. XIII, f. 1ra–44vb
Vienna, ÖNB, 3105, s. XV, f. 1ra–33vb
† Wroclaw, BU, R 172, s. XIV, f. 1r–46r

A.2.2. *Quadripartitum*, tr. Hugo Sanctelliensis

This translation from the Arabic (in the anonymous version partially extant in MS Istanbul, Üniversitesi, A 6141) is unattributed in the manuscripts, but Charles Burnett convincingly argued that it was prepared by Hugo Sanctelliensis (*fl.* 1145–1147), on whom see C.3.1.2. As also shown by Burnett, Hugo knew Plato of Tivoli's translation (A.2.1). The present translation was used by the author of the *Speculum astronomie c.* 1250 (see P. Zambelli, *The Speculum astronomiae and Its Enigma: Astrology, Theology and Science in Albertus Magnus and His Contemporaries*, Dordrecht-Boston-London, 1992, 226, 230 and 234), by Roger Bacon in Book IV of his *Opus maius* about 1266–1267 (ed. J. H. Bridges, *The Opus Maius of Roger Bacon*, I, London, 1897, 243–45) and by Henry Bate of Mechelen in the preface to his translation of Abraham Avenezra's *De mundo vel seculo* in 1281 (ed. C. Steel, 'Henry Bate's Translation of Ibn Ezra's Treatise *The Book of the World*', *Quaestio* 19 (2019), 227–78: 247 l. 67–78; ed. S. Sela, *Abraham Ibn Ezra Latinus. Henry Bate's Latin Versions of Abraham Ibn Ezra's Astrological Writings, with English Translation and a Collation with the Hebrew and French Source Texts*, Leiden-Boston, 2022, II, 936–38)).

Note A section of the text, opening with I.4 and of unknown length, was once contained in MS →Florence, BNC, Conv. Soppr. J.III.28 (San Marco 180). See this MS under Note.

Text '(Vatican, BAV, Vat. lat. 4075) Liber quatuor tractatuum Ptholomei in scientia iudiciorum astrorum. (1r–18v) **[BOOK I]** Et sunt in primo tractatu capitula viginti septem. De hiis communiter que ad totum librum pertinent... (chapter index). (1v) Capitulum primum de hiis communiter que ad totum librum pertinent. Iuxta providam philosophorum assertionem quos videlicet in prescientia futurorum astris signa prebentibus — quasi cuiusdam fundamenti locum sortiuntur. Finitur primus tractatus. (18v–31v) **[BOOK II]** Et incipiunt capitula secundi: De partibus huius artis... (chapter index). Capitulum primum. De partibus huius artis. Cum omnia precepta et principalia que quasi quemdam in astronomiam — velud ordo postulat enarremus. (31v–42v) **[BOOK III]** Tractatus tertius Quadripartiti Ptholomei. Que sit inter prescriptos et presentes libros differentia... (chapter index). De differentia et convenientia huius libri. Presentis libri series cum suprascriptis in significatione — et que sunt ipsius proprietatis multiplicat. (42v–52v) **[BOOK IV]** Tractatus quartus Quadripartiti Ptholomei. De terminis divitum et potentum... (chapter index). De terminis divitum et potentum. His igitur que ad intrinsecus tam corporis quam anime proprietates discernendum — adhibeatur intentio liquidius aperire sufficiet. Ad laudem omnipotentis Dei finitur Quadripartitus Ptholomei. Finitur liber quatuor partituum (!) sive tractatuum Ptholomei.'

Bibl. Haskins 1927, 111 n. 163; Carmody 1956, 18–19 (no. 10c); Burnett 2024; C. Burnett, 'Hugo Sanctelliensis's Version of Ptolemy's *Quadripartitum*' (forthcoming).

Modern ed. ---

EDS ---

MSS Bruges, OB, 520, s. XIV–XV, f. 48r–112r (breaks off in IV.9)
Madrid, BN, 10053, s. XIII, f. 89ra–110vb (breaks off in IV.10)
Vatican, BAV, Chigi F.IV.48, s. XII–XIII, f. 35r–88v (truncated)
Vatican, BAV, Vat. lat. 4075, s. XV, f. 1r–52v
Vatican, BAV, Vat. lat. 5714, s. XIII, f. 114ra–117va (II.3–14)

A.2.3. *Quadripartitum*, tr. 1206

This translation, made from the Arabic (in the version by Ibrāhīm ibn al-Ṣalt revised by Hunayn ibn Iṣḥāq), is dated 29 August 1206 in the colophon and the translator speaks of Great Britain as his homeland in a gloss inserted into the text of ch. II.3: 'Insule etiam boreales cum suis habitaculis ut Scotia, Ybernia, Maior Britannia, in qua patria nostra excestrici...' (ed. Lemay, *Abu Ma'shar and Latin Aristotelianism*, 20 n. 4). Because the translation reproduces several passages of Hermann of Carinthia's translation of Albumasar's *Introductorium maius* (1140), Lemay attributes it to Hermann's colleague Robert of Chester (meaning Robert of Ketton) and interprets the date 1206 as 1168 following the Spanish era. However, as noted by Burnett ('Arabic

into Latin', 131), the Hijri date '23 die Almuharam anno Arabum 603', also given in the colophon, does correspond to 29 August 1206, which rules out Robert's (or Hermann's) authorship. As to the translator's use of Hermann's translation of the *Introductorium maius*, Burnett writes (*ibid.*): 'An alternative explanation is that the author of the translation deliberately modelled his preface and style of signature on Hermann's translation of the *Introductorium* which seems to have been associated with this translation in the MS. tradition from an early date' (the Florence and Parma MSS include Hermann's *Introductorium maius*). Georges pointed out that the last word in the above quotation is not 'excestrici', but 'Excestria', i.e. Exeter, and convincingly argues that the translator was probably Adam of Exeter (or Adam Rufus), a student of Robert Grosseteste who is attested as a master at the University of Oxford in the 1220s and who was familiar with Hermann of Carinthia's translation of Albumasar's *Introductorium maius*, which he used in his *De accessu et recessu maris*.

Text '(Florence, BNC, Conv. Soppr. J.II.10) Incipit Quadripartitum Tholomei. (91r) **[TRANSLATOR'S PREFACE]** Prolixitatis exosa latinitas artium principia prescriptione quadam insignire solicita est ut sequens negotium gratiosius elucescat — reminiscitur post imperii Romani adeptionem. Hiis habitis ad propositum accedamus. (91r–99r) **[BOOK I]** Liber primus incipit. Primi libri capitula sunt 24. Primum de divisione scientie... (chapter index). Ex stellarum habitudine prescientie perfectio consecuta, Iezuri, tamquam partes maiores et sublimiores in duo consistit distributa — qui modi si defuerint virtute diminuta debiles iudicandi sunt. (99r–105v) **[BOOK II]** Incipit liber secundus Quadripartiti. Secundi capitula libri 13. Unum de divisione iudiciali... (chapter index). De divisione iudiciali. Capitulum primum. Post generales partium ordinationes quarum usus in prescientia necessarius ulteriores secundum viam continuationis naturalis precedentibus — ad prescientiam nativitatum prout hic ordini competit secundum viam continuationis maturemus. (105v–113v) **[BOOK III]** Incipit liber tertius. Tertii libri capitula 14. Primum de distinctione initiorum nati... (chapter index). Capitulum primum de distinctione initiorum nati. Quoniam accidentium universalium ut premitti dignior investigatio prosecuta est — Mercurius quidem rem publicat, multiplicat et augmentat. (113v–118v) **[BOOK IV]** Liber quartus... Quarti libri capitula 9. Primum de possessione nati... (chapter index). Capitulum primum de possessione nati. Desub alibus nati et eius propriis, que nativitatem ipsam communicantur, precedunt et sequntur — Tunc enim natus pro parte maiori, in omnibus vel in prosperitatem pro dispositorum qualitatem inveniet. Quoniam ergo iuxta propositum nostrum in astrorum iudicia viam universalem tradidimus, congruum est ut huic tractatui nostro finem imponamus. Perfecta est huius libri translatio 29 die Augusti anno domini 1206, et 23 die Almihatam (!), anno Arabum 603. Et Deus melius novit. Explicit Quadripartitum Ptholomei in iudicia astrorum secundum accidentia editum.'

Bibl. Björnbo 1909, 99–100 (no. 17); Haskins 1927, 110–11; Carmody 1956, 18 (no. 10b); R. Lemay, *Abu Ma'shar and Latin Aristotelianism in the Twelfth Century. The Recovery of Aristotle's Natural Philosophy through Arabic Astrology*, Beirut, 1962, 19–20 n. 4; C. Burnett, 'Arabic into Latin in Twelfth Century Spain: The Works of Hermann of Carinthia', *Mittellateinisches Jahrbuch* 13 (1978), 100–34: 130–32; Lemay 1995–1996, VII, 34–37 and 107–09; Lemay 1999, I, 378–80; Burnett (forthcoming); Georges (forthcoming).

Modern ed. ---

EDS ---

MSS Florence, BNC, Conv. Soppr. J.II.10 (San Marco 200), s. XIII–XIV, f. 91r–118v
Parma, BP, 718–720, s. XIII, f. 311r–343v
Wolfenbüttel, HAB, 147 Gud. Lat. 4º (4451), s. XIII, f. 162r–194r

A.2.4. *Quadripartitum*, tr. Toledo 1236

Translated from the Arabic (in the anonymous version partially extant in MS Istanbul, Üniversitesi, A 6141) in Toledo in 1236. The date given in the colophon reads: 'in the month of February, on Saturday, the Sun being at 26° Aquarius, the Moon in the same <sign> <at> 6°, Saturn in Taurus, in AD 1234, in the year of the Arabs 633, in the year of the <Spanish> era 1274', where 1234 is clearly a mistake for 1236, for 1236 (not 1234) corresponds to both the year of the Arabs 633 and the year of the Spanish era 1274. The planetary positions are reasonably correct for 7 February 1236 at 9am in Toledo (Sun at 25°22′ Aquarius, Moon at 6°35′ Aquarius and Saturn at 27°00′ Taurus), but that was a Thursday, not a Saturday. On Saturday 9 February 1236 (again, at 9am in Toledo), the Sun was at 27°23′ Aquarius and the Moon at 06°59′ Pisces, so that either the weekday or the sign of the Moon was wrongly reported. The additional paragraph at the end does not seem to be part of the text.

Text '(London, BL, Harley 267) Quadripartitum Ptholomei [title added in upper margin]. (24r–32r) **[BOOK I]** Accidentia scientie futurorum de significatione super illud quod proventurum est a stellis dividuntur in duas radices — supra se in significatione eorum que ventura sunt. (32r–39r) **[BOOK II]** Incipit tractatus secundus in quo sunt 15 capitula. Capitulum I. De partibus istius mundi — stella alia non erint inpedimentum fixum nec ... (?). (39r–45r) **[BOOK III]** Incipit tractatus tertius in quo sunt 14 capitula. Capitulum I. De diversitate que e... (?) duo predicta et ista. Vis duorum dictorum precedentium est una in significatione — supra se estimatio et debilitas. (45r–51r) **[BOOK IV]** Incipit tractatus 4 in quo sunt 10 capitula. Capitulum primum. Quod dicam quod significat supra modorum istorum capitulorum. Dixit Ptholomeus quod scientia in omni — quam consecutis sum cum scientia et probacione mea et hic melius quam potui vulgariter. Perfectus est quadripartitus Ptholomei gratia Dei mense Februario die Sabbati, Sole in Aquario 26 gradu, Luna in eodem 6, Saturno in Tauro, anno ab incarnatione domini M^{o}CC^{o}XXX^{o} quarto, annis Arabum 633, era M^{a}CC^{a}74 in civitate Toletana translatus. **[ADDITIONAL PARAGRAPH]** Et triangulus quidam primus vocatur atrioalis (*sic for* septemtrionalis) et est ille qui incipit ab Ariete et nominatur atrionalis (!) — hoc capitulum est p... (?). Explicit Quadripartitus Ptolomei. Deo adiuvante.'

Bibl. Carmody 1956, 19 (no. 10d); L. Thorndike, 'The A.D. 1234 Latin Translation of Ptolemy's *Quadripartitum*', *Manuscripta* 8 (1964), 98–101; Lemay 1995–1996, IV, 186; Burnett (forthcoming).

Modern ed. None. The chapter index of Books II–IV is reproduced by Thorndike.

EDS ---

MSS London, BL, Harley 267, s. XIII–XIV, f. 24r–51r

A.2.5. *Quadripartitum*, tr. Egidius de Tebaldis

This translation is part of Haly Abenrudian's *Glosa super Quadripartito Tholomei*. See C.2.2.

A.2.6. *Quadripartitum*, tr. William of Moerbeke

Translated from the Greek by William of Moerbeke before 1272 and probably between 1266 and 1269. As shown by Vuillemin-Diem/Steel, the Greek model (now lost) used by William often offers superior readings to those of all (47) the surviving Greek manuscripts, so that the resulting Latin text allows us to improve on the critical edition of the Greek original. William's translation remained little known, but it was used by Thomas Aquinas, Henry Bate of Mechelen and probably Agostino Nifo (see C.2.15).

Text '(ed. Vuillemin-Diem/Steel) **[BOOK I]** In primo libro iudicialium Claudii Ptholomei ad Syrum insunt ista capitula... (chapter index). Prohemium. Capitulum primum. Hiis qui instituunt per astronomiam pronosticum finem, o Syre, cum duo insint maxima et principalissima: unum quidem quod primum est ordine et virtute — se habentes impotentes penitus existent. Finis libri primi. **[BOOK II]** Hec sunt capitula libri secundi... (chapter index). Divisio totius intentionis. Capitulum primum. Principaliora quidem preexpositorum nobis tabulariter ad considerationem particularium prenuntiationum — in consequentibus secundum convenientem consequentiam aggrediemur. Explicit liber secundus. **[BOOK III]** Hec sunt capitula libri tertii... (chapter index). Prohemium. Capitulum primum. Pertracta nobis in precedentibus theoria que est circa universalia simptomata — quod passionum facile mobilius et multiformius et quod facile profectibilius. Explicit liber tertius. **[BOOK IV]** Incipit liber quartus. Prohemium. De fortuna possessoria... (chapter index). Prohemium. Capitulum primum. Que quidem igitur ante nativitatem — Consummata iam geneatici sermonis specie summatim, bene utique habebit huic tractatui convenientem imponere finem. Explicit liber quartus Ptholomei.'

Bibl. Björnbo 1909, 99–100 (no. 17); Haskins 1927, 111–12; Carmody 1956, 19 (no. 10e); L. Anthonis, '*Iudicialia ad Syrum*: Une traduction de Guillaume de Moerbeke du *Quadripartitum* de Cl. Ptolémée', in *Guillaume de Moerbeke. Recueil d'études à l'occasion du 700e anniversaire de sa mort (1286)*, eds J. Brams, W. Vanhamel, Leuven, 1989, 253–55; Vuillemin-Diem/Steel 2015.

Modern ed. Vuillemin-Diem/Steel.

EDS ---

MSS Oxford, BL, Digby 179, s. XIV, f. 171ra–208vb
Venice, BNM, lat. XIV.242 (4295), s. XV, f. 1ra–12vb (breaks off in II.9)

A.2.7. *Quadripartitum*, tr. Agostino Nifo

This translation is part of Agostino Nifo's *Ad Apotelesmata Ptolemaei eruditiones*. See C.2.15.

A.2.8. *Quadripartitum*, tr. first half of the 16th c.

This translation is interspersed and forms one item with Isaac Argyros's *Paraphrasis in Anonymum commentum in Quadripartitum*. See C.2.16.

A.2.9. *Quadripartitum*, tr. Joachim Camerarius

Translated from the Greek by Joachim Camerarius and published by him, together with his *editio princeps* of the Greek text, in Nürnberg in 1535. Camerarius translated Books I–II and provided only selections from Books III (chs 2–3) and IV (chs 3 and 10). The publisher, Johannes Petreius, supplied the complete Books III and IV in Plato of Tivoli's translation (A.2.1) at the end of the volume (sig. aa_ir–[ff_{iv}] r). In the subsequent editions of 1541 and 1551, Camerarius's selections from Books III and IV were ignored and replaced by Plato's translation. Camerarius also left a series of notes discussing his edition of the Greek text (ed. Nürnberg 1535, sig. 37v–40r: 'Lectoribus Ioachi<mus>. Cum Ptolemaei librum iudiciorum praelo subiecissemus, qui traductus in multa exempla studiosis communicaretur — ipsi comiter emendabunt. Finis') and his translation of Books I–II (sig. 40v–43v: 'Annotatiunculae Ioachimi Camerarii in conversos duos libros priores iudiciorum Ptolemaei. Etsi in conversionibus reddere non soleo facti nostri — in isto genere depromanus usibus ipsorum. Finis'). Camerarius dedicated his edition of the Greek text to the duke of Prussia Albrecht of Brandenburg (1490–1568) and his Latin translation of Books I–II to Johann Wilhelm von Laubenberg (1511–1563). Camerarius's translation (Books I–II) was taken over by Antonius Gogova (A.2.10) and was used in commentaries C.2.21 and C.2.23.

Text '(ed. Nürnberg 1535) ([a_i]r) Cl<audii> Ptolemaei librorum de iudiciis astrologicis quatuor, duo priores conversi in linguam Latinam a Ioachimo Camerario Pabergense. Annotatiunculae in eosdem. Aliquot loci translati de tertio et quarto libro Ptolemaei per eundem Camerarium. [Joachim Camerarius, Latin verses.] (a_{ii}r–a_{iii}v) Ioachimus Camer<arius> Io. Vilhelmo a Lovbenburg equ. domino ac praesidi arcis Vualdegk S. D. Etsi animus non erat, cum dedissem excudendum typis aeneis Graecum codicem Ptolemaei — plurimum debeat, diminuere videar. Vale. Cal. August<i>, anni a Christo servatore nato M.D.XXXV, inter apparatus discessionis nostrae e Norico. (1r) Claudii Ptolemaei mathematici operis libri quatuor, in quibus de iudiciis disseritur, ad Syrum. (1r–15r) **[BOOK I]** Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — in

imo caelo aut alio conformi finitori orientali signo. Sed extra haec omnia reperti imbecilles et prorsus infirmi habentur. Finis libri primi. (15v–28r) **[BOOK II]** Cl<audii> Ptol<emaei> de iudiciis liber secundus. Hactenus quidem percurrimus ea quorum maxime cognitionem praedictiones rerum singularium requisiturae viderentur, exponents per certa quaedam capita quasi in tabella. Nunc igitur deinceps explicabimus rationem uncuscuiusque rei cuius quidem praecognitio esse possit — atque particuliarium signorum breviter disserere. Quod superest genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi. (28v–29v) **[BOOK III]** Ex libro iudiciorum tertio. De genesis figura constituenda. Cum sit temporale humanae geniturae tempus, seminis quidem unum naturaliter — ad constituendum M. C. cardinem abutemur, et reliquum de illo figurabimus. (29v–32v) **[BOOK IV]** Ex libro quarto. De fortuna honorum et dignitatis. Quae ad dignitates attinent, ita considerabuntur — sicut initio ostendimus, cognita universali stellarum efficacia consequenter accommodari particularia recte possint, si apte cum mathematici caussa (!) mistionum etiam caussa iuncta fuerit.'

Bibl. S. Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology*, Leiden, 2003, 204; R. S. Westman, *The Copernican Question. Prognostication, Skepticism, and Celestial Order*, Berkeley-Los Angeles-London, 2011, 45; Lerch 2015, 26.

Modern ed. ---

EDS Nürnberg, Johannes Petreius, 1535, sig. [a_i]r–32v
Basel, Henricus Petri, 1541, sig. 429–458
Basel, Henricus Petri, 1551, sig. 379–403
Lyon, Philippus Tinghus, 1581, vol. I, sig. 50–108
Lyon, Philippus Tinghus, 1583, vol. I, sig. 50–108

MSS ---

A.2.10. *Quadripartitum*, tr. Antonius Gogava

Translated from the Greek by Antonius Gogava (1529–1569) and published by him in Leuven in 1548, together with two shorter works of optics, in a volume dedicated to Maximilian of Egmond, count of Buren and Leerdam. The first two books are taken from Camerarius's translation (A.2.9) without changes, while Books III and IV are translated anew. Gogava's translation is the source text of commentaries C.2.24, C.2.27, C.2.37 and C.2.42, and was also used in commentary C.2.21.

Text '(ed. Leuven 1548) (A_4r–E_2r) **[BOOK I]** Claudii Ptolemaei mathematici operis libri quatuor in quibus de iudiciis disseritur ad Syrum liber I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — in imo coelo aut alio conformi finitori orientali signo. Sed extra haec omnia reperti imbecilles et prorsus infirmi habentur. Finis libri primi. (E_2v–H_2v) **[BOOK II]** Claudii Ptolemaei mathematici de iudiciis liber II. Hactenus quidem percurrimus ea, quorum maxime cognitionem praedictiones rerum singularium requisiturae viderentur, exponentes per certa quaedam capita quasi in tabella.

Nunc igitur deinceps explicabimus rationem uniuscuiusque rei, cuius quidem praecognitio esse possit — Atque hactenus placuit de generali inspectione universalium atque particularium signorum breviter disserere. Quod superest, genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi. (H_3r–N_1v) **[BOOK III]** Claudii Ptolemaei mathematici de iudiciis liber tertius. Explicata a nobis in prioribus communium eventuum consideratione, nimirum quae et natura praecedit, et plurimum valet in peculiarium — Denique Mercurius haec reddit vulgo notiora, agiliora milleque modis varia, et cautius instituta. Finis libri tertii. (N_2r–P_3v) **[BOOK IV]** Claudii Ptolemaei Pelusiensis quadripartiti operis liber quartus. Quae igitur genituram praecedunt illive connexa sunt, amplius ea quoque quae eam comitantur, cuiusmodi sunt universae animi et corporis constitutionis propria, haec fere sunt quae diximus — Hic igitur nobis est temporum contemplandorum modus, genera vero decretorum suis temporibus evenientium congerere hoc loco omittemus, ob illum quem nobis scopum proposuimus cum astrorum afficientia generatim perspecta, partilioribus eventibus accommodari iusta ratione possit, si mathematici causam erudite cum ea quae extemperatura nascitur, comparemus. Finis libri quarti.'

Bibl. S. Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology*, Leiden, 2003, 161 and 175; R. S. Westman, *The Copernican Question. Prognostication, Skepticism, and Celestial Order*, Berkeley-Los Angeles-London, 2011, 180; Lerch 2015, 27.

Modern ed. ---

EDS Leuven, Petrus Phalesius & Martinus Rotarius, 1548, sig. [A_4]r–[P_3]v

MSS ---

A.2.11. *Quadripartitum*, tr. Philipp Melanchthon

Translated from the Greek by Philipp Melanchthon and published by him in Basel in 1553, together with Camerarius's edition of the Greek text. For the first two books, Melanchthon used and improved on Camerarius's translation (A.2.9), which he praises in his dedicatory letter to Erasmus Ebner (ed. Basel 1553, sig. 8–9). Books III and IV are translated anew and no mention is made of Gogava's translation (A.2.10). There is evidence that the present translation, or at least a draft of it, already existed by 1544 (see C.2.22). Melanchthon's translation is the source text of commentary C.2.41.

Text '(ed. Basel 1553) Claudii Ptolemaei mathematici operis de iudiciis astrologicis libri quatuor Philippo Melanthone interprete. (10–68) **[BOOK I]** Liber primus. Duo sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — in imo coeli, aut alio loco aspiciente eum. Sed cum prorsus non aspiciunt, omnino languidi sunt, et imbecilles. (68–120) **[BOOK II]** Liber secundus Ptolemaei. Praecipuam doctrinam breviter expositam, ut in tabella, necessariam ad praedictiones eventuum singularium, hactenus in summa tradidimus — et particularium signorum breviter disserere. Quod superest, geniturarum indicia (!), sicut et ordo postulat, nunc deinceps exequemur. (120–204)

[BOOK III] Liber tertius Ptolemaei. De conceptu, et edito foetu. Cum hactenus tractata sit consideratio universalium eventuum, quae et prior esse dicitur, et saepe vincit particulares significationes in naturis singulorum hominum — Mercurius famosiores, et crebras morum mutationes, et maiora damna. (204–51) **[BOOK IV]** Liber quartus Ptolemaei. De eventuum significationibus vel causis. Exposui ea quae ante editionem partus spectantur, quaeque partu edito statim insunt, et quae postea sequuntur — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita, particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis. Finis.'

Bibl. Lerch 2015, 27–29.

Modern ed. No modern edition. The text has been translated into German by E. Winkel, *Claudius Ptolemaeus: Tetrabiblos. Nach der von Philipp Melanchthon besorgten seltenen Ausgabe aus dem Jahre 1553*, Berlin, 1923, 2 vols.

EDS Basel, Johannes Oporinus, 1553, first part, sig. 10–251
Prague, Casparus Kargesius, 1610, sig. 1–261
Frankfurt/M., Joannes Bringerus, 1611, sig. 1–287
Frankfurt/M., Joannes Bringerus, 1622, sig. 1–287
Perugia, Petrus Thomasius, 1646, sig. 1–344

MSS ---

A.2.12. *Quadripartitum*, tr. Valentin Nabod

This translation is part of Valentin Nabod's *In Claudii Ptolemaei Quadripartitae constructionis apotelesmata commentarius novus et eiusdem conversio nova*. See C.2.30.

A.2.13. *Quadripartitum*, tr. Pancratius Florentinus

Translated from the Greek by one Pancratius Florentinus, monk of Vallombrosa (near Florence), probably the same as the Pancratius Cambi Florentinus of Vallombrosa, who is reported to have been very skilled in Greek and Hebrew and a poet active *c.* 1612 (see *Ristretto della vita del patriarca S. Giovangualberto primo abate & istitutore del monastico Ordine di Vallombrosa scritta da D. Fedele Soldani monaco del medesimo Ordine*, Firenze, 1766, 137). The same Pancratius Florentinus also translated the *Centiloquium* (B.1.10).

Text '(Florence, BML, Redi 12) Claudii Ptolomaei Pelusiotae quadripartiti operis de iudiciis astrorum ad Syrum fratrem liber primus, Pancratio Florentino, monaco Vallis Umbrosano, interprete. (1r–30r) **[BOOK I]** Proemium. Cum duo sint maxima et potissima, o Syre, quae per astronomiam finem cui praesagiendi vis insita est praeparant... (2r) Cap. 1. Quod compraehendi potere astronomica scientia et quousque tendat. Omnibus profecto vim quamdam ab aethera et sempiterna natura — impotentes omnino sunt. (30r–53r) **[BOOK II]** Claudii Ptolemaei Pelusiotae de stellarum effectibus liber secundus. Cap. 1. Iam pridem veluti in tabula quae

in particularium praedictionum — aquosum, duplicis figurae, servile alatum. (53v–85v) **[BOOK III]** Claudii Ptolemaei Pelusiotae de stellarum effectibus liber tertius. Cap. 1. De conceptu et fœtus cicetione. Cum perspecta sit nobis in superioribus circa universales eventus — et explorationem. (85v–103v) **[BOOK IV]** Claudii Ptolemaei de stellarum effectibus liber quartus. Igitur que quidem ante nativitatem et que in ipsa nativitate consideranda sunt... Cap. 1. De fortuna divitiarum. Quales igitur futurae sint divitiae assumendum est — et causae mathematicae et causae quae oriuntur ex mixtione. Finis.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Florence, BML, Redi 12, s. XVII, f. 1r–103v
Vatican, BAV, Cappon. 255, s. XVII, f. 1–222

A.3. *Planetary Hypotheses* [Greek]

The *Planetary Hypotheses* (Greek: *Ὑποθέσεις τῶν πλανωμένων*, 'Hypotheses of the Planets'; Arabic: *Kitāb Iqtiṣāṣ aḥwāl al-kawākib*, 'Book of the Report of the States of the Planets', and *Kitāb al-Manshūrāt*, 'Book of Sawn-off Pieces', among other titles) consists of two books providing a physical description of the universe, in particular of the planetary spheres, distances, sizes and motions. Only the first part of Book I survives in Greek (up to the sphere of Saturn = I.14 in Heiberg's edition) and it is from this incomplete Greek version that the three sixteenth- and seventeenth-century Latin translations derive (A.3.1–3). The complete work survives in Arabic, in a ninth-century translation.

Bibl. Steinschneider 1893, II, 538–39; Heiberg 1907, VI–X and CLXVI–CLXXIV; W. Hartner, 'Medieval Views on Cosmic Dimensions and Ptolemy's *Kitāb al-Manshūrāt*', in *Mélanges Alexandre Koyré*, I: *L'aventure de la science*, eds I. B. Cohen, R. Taton, Paris, 1964, 254–82 (reprinted in W. Hartner, *Oriens-Occidens. Ausgewählte Schriften zur Wissenschafts- und Kulturgeschichte. Festschrift zum 60. Geburtstag W. Hartner*, Hildesheim, 1968, 319–48); B. R. Goldstein, 'The Arabic Version of Ptolemy's Planetary Hypotheses', *Transactions of the American Philosophical Society* N. S. 57 (1967), 3–55; N. M. Swerdlow, *Ptolemy's Theory of the Distances and Sizes of the Planets: A Study of the Scientific Foundations of Medieval Cosmology*, PhD dissertation, Yale University, 1968; Neugebauer 1975, II, 900–26; Sezgin 1974–1979, VI, 94–95 (no. II); N. W. Swerdlow, O. Neugebauer, *Mathematical Astronomy in Copernicus's De revolutionibus*, New York, 1984, I, 40–41; E. Pérez Sedeño, *Ptolomeo: Las Hipótesis de los Planetas,* Madrid, 1987; A. Cano Ledesma, E. Pérez Sedeño, '"Las hipotesis de los planetas" de Claudio Ptolomeo y su recepcion entre los astronomas arabes', *Revista Brasileira de História da Ciência* 10 (1993), 21–28; R. Morelon, 'La version arabe du *Livre des hypothèses* de Ptolémée', *Mélanges de l'Institut Dominicain d'Études Orientales* 21 (1993), 7–85; L. Taub, *Ptolemy's Universe. The Natural Philosophical and Ethical Foundations of*

Ptolemy's Astronomy, Chicago, 1993, 105–25; A. Murschel, 'The Structure and Function of Ptolemy's Physical Hypotheses of Planetary Motion', *JHA* 26 (1995), 33–61; R. Morelon, 'Le *Livre des hypothèses* de Claude Ptolémée et la lecture de cet auteur en langue arabe', in *Perspectives arabes et médiévales sur les traditions scientifique et philosophique grecque. Actes du colloque de la SIHSPAI (Société internationale d'histoire des sciences et de la philosophie arabes et islamiques), Paris, 31 mars – 3 avril 1993*, eds A. Hasnawi, A. Elamrani-Jamal, M. Aouad, Leuven-Paris, 1997, 95–104; J. Evans, 'The Origins of Ptolemy's Cosmos', in *Cosmology Through Time. Ancient and Modern Cosmologies in the Mediterranean Area*, eds S. Colafrancesco, G. Giobbi, Milano, 2003, 123–32; N. W. Swerdlow, 'Ptolemy's Theories of the Latitudes of the Planets in the *Almagest*, *Handy Tables*, and *Planetary Hypotheses*', in *Wrong for the Right Reasons*, eds J. Z. Buchwald, A. Franklin, Dordrecht-Berlin, 2005, 41–71; D. W. Duke, 'Mean Motions in Ptolemy's *Planetary Hypotheses*', *AHES* 63 (2009), 635–54; Pedersen 2011, 391–97; E. A. Hamm, *Ptolemy's Planetary Theory: An English Translation of Book One, Part A of the* Planetary Hypotheses *with Introduction and Commentary*, PhD dissertation, University of Toronto, 2011; Tolsa 2013, 222–32; S. Moureau, 'Note on a Passage of the Arabic Translation of Ptolemy's *Planetary Hypotheses*', in *The Alexandrian Tradition. Interactions between Science, Religion, and Literature*, eds L. A. Guichard, J. L. García-Alonso, M. P. De Hoz, Bern, 2014, 93–95; A. Tihon, 'Alexandrian Astronomy in the 2nd Century AD: Ptolemy and His Times', in *The Alexandrian Tradition. Interactions between Science, Religion, and Literature*, eds L. A. Guichard, J. L. García Alonso, M. Paz de Hoz, Bern-Berlin, 2014, 73–91: 76–79; F. Acerbi, 'Byzantine Recensions of Greek Mathematical and Astronomical Texts: A Survey', *Estudios Bizantinos* 4 (2016), 133–213: 172; E. A. Hamm, 'Modeling the Heavens: *Sphairopoiia* and Ptolemy's *Planetary Hypotheses*', *Perspectives on Science* 24 (2016), 416–24; J. Feke, *Ptolemy's Philosophy. Mathematics as a Way of Life*, Princeton-Oxford, 2018, 187–200 and *passim*; J. C. Evans, 'The Ptolemaic Planetary Hypotheses', in *Hellenistic Astronomy. The Science in Its Contexts*, eds A. C. Bowen, F. Rochberg, Leiden-Boston, 2020, 112–24; P. Hullmeine, 'Was there a Ninth Sphere in Ptolemy?', in Juste/van Dalen 2020, 79–96; G. Loizelet, *Mesurer et ordonner les astres d'al-Farghānī à al-Bīrūnī: la tradition arabe du* Livre des Hypothèses *de Ptolémée (IXe–XIe s.). Avec une édition et une traduction française du chapitre X.6 d'*al-Qānūn al-Masʿūdī *d'al-Bīrūnī,* PhD dissertation, Université de Paris, 2021; P. Hullmeine, *Ptolemy's Cosmology in Greek and Arabic. The Background and Legacy of the Planetary Hypotheses*, Turnhout, 2024.

Modern ed. The Greek original text, containing the first part of Book I only, was first published, together with a facing Latin translation, by John Bainbridge in 1620 (A.3.3). Critical edition by Heiberg 1907, 70–107 (with facing German translation and followed, pp. 110–45, by a German translation of Book II from the Arabic by L. Nix). An earlier edition of the Greek text had been provided by N. Halma, *Hypothèses et époques des planètes de C. Ptolémée, et Hypotyposes de Proclus Diadochus*, Paris, 1820, 42–56 (with a French translation). Critical edition of the complete Arabic text, together with an English translation, by Hullmeine, *Ptolemy's Cosmology*, 222-351. Earlier editions of the Arabic text had been prepared by Goldstein, 'The Arabic Version' (facsimile of the full text, including the second part of Book I and Book II, together with an English translation of the second part of Book I), and by Morelon, 'La version arabe' (critical edition of Book I, with a French translation). The Greek text has been translated

into English by Hamm, *Ptolemy's Planetary Theory*, 44–64 (from Heiberg's edition). The complete text has been translated into Spanish in Pérez Sedeño, *Ptolomeo* (from Greek, as far as extant, by J. García Blanco, and from Arabic, for the rest, by A. Cano Ledesma), but see G. J. Toomer's review of this book in *Isis* 81 (1990), 757–58.

A.3.1. *De hypothesibus planetarum*, tr. Matthias Bergius

First part of Book I (I.1–14 in Heiberg's edition) translated from the Greek by Matthias Bergius (1536–1592), professor of Greek and Latin in Braunschweig (1566–1582), then professor of philosophy in Altdorf (1582–1592). If we accept the chronology of the documents in MS Milan, BA, A. 71 inf. as an indicator, then the translation was made before 1587. A note added by the scribe (Johannes Praetorius) in the margin of Munich, BSB, Cod. Graec. 579, f. 9v, seems to imply that Bergius's translation stopped at the end of ch. I.8 (sphere of the Sun) and that the remaining chapters (I.9–14) were translated by someone else and are completely corrupt ('Hic desinit Bergii versio et antecedentia quidem intelligi et conciliari possunt mediocriter, sed quae sequuntur videntur esse admodum corrupta'). In the title f. 8r, Praetorius speaks of an incorrect Greek exemplar ('ex libello manuscripto et incorrecto'). Munich, BSB, Cod. Graec. 579 also contains an additional chapter at the end (f. 15r), which repeats the beginning of ch. I.8 on the sphere of the Moon (as on f. 10r) in a slightly revised version, probably in an attempt to improve the translation.

Text '(Munich, BSB, Cod. Graec. 579) Fragmentum versionis M. Bergii ex libello manuscripto et incorrecto, cuius titulus erat Κλαυδίου Πτολεμαίου περὶ ὑποθέσεων τῶν πλανωμένων. Hypotheses, o Syre, coelestium motuum in iis quidem, quas de mathematicis scripsimus commentariis, oratione explicare conati sumus — (14r) Stella tandem a boreo limite obliqui circelli in consequentia mundi partibus. Finis. (15r) Pro lunari sphaera cogitetur iterum circulus zodiaco concentricus — et excessu quo excedit medius motus Solis.'

Bibl. Müller 1998, 49 and 330–31, no. 151 (entries by M. Folkerts).

Modern ed. ---

EDS ---

MSS Milan, BA, A. 71 inf., s. XVI, f. 76r–84v
Munich, BSB, Cod. Graec. 579, s. XVI, f. 8r–15r
Oxford, BL, Savile 41, s. XVI–XVII, f. 2r–7r

A.3.2. *De suppositione planetarum*, tr. before 1595

First part of Book I (I.1–14 in Heiberg's edition) translated from the Greek by an anonymous translator at an unknown date before 1595. The only extant manuscript belonged to Johannes Praetorius, who left a note in the margin of f. 9r saying that this

version was sent to him by the 'Bavarian Chancellor', i.e. Herwart von Hohenburg, on 16 October 1595.

Text '(Schweinfurt, SB, Ha 16) Claudii Ptolomei De suppositione planetarum. Suppositiones, Syre, coelestium motuum in Magnae compositionis commentariis methodica ratione tradidimus — Stella autem Borealis termini obliqui circelli tanquam ad sequentia mundi grad. et sexages. Finis nec quicquam reliquum.'

Bibl. Kristeller 1963–1992, III, 693; Müller 1998, 46–47 and 335–36, no. 155 (entries by M. Folkerts).

Modern ed. ---

EDS ---

MS Schweinfurt, SB, Ha 16 (H 85), s. XVI, f. 9r–20v

A.3.3. *De planetarum hypothesibus liber*, tr. John Bainbridge

First part of Book I (I.1–14 in Heiberg's edition) translated from the Greek in 1620 by John Bainbridge, who had been elected by Henry Savile the first Savilian Professor of Astronomy at Oxford in 1619. Bainbridge published the translation together with the Greek original text in two columns. Chapters are numbered as follows: prologue (1), celestial circles (2), planetary periods (3), Sun and fixed stars (4), Moon (5), Mercury (6), Venus (7), Mars (8), Jupiter (9) and Saturn (10).

Note MS Dublin, TC, 794 (D.3.24), s. XVII, f. 1r–3v, contains John Bainbridge's *Oratio de Ptolomaei hypothesibus* (see Kristeller 1963–1992, III, 193). I have not seen this manuscript.

Text '(ed. London 1620) Claudii Ptolemaei de planetarum hypothesibus liber. I. Prooemium. Hypotheses, Syre, coelestium motuum in Syntaxis mathematicae commentariis rationum ductu perlustravimus — Stella vero a boreali obliqui circelli limite in mundi consequentia part. 229 et sexages. 15. ΤΕΛΟΣ.'

Bibl. E. A. Hamm, *Ptolemy's Planetary Theory: An English Translation of Book One, Part A of the* Planetary Hypotheses *with Introduction and Commentary*, PhD dissertation, University of Toronto, 2011, 11. On Bainbridge, see M. Feingold, *The Mathematicians' Apprenticeship. Science, Universities and Society in England, 1560–1640*, Cambridge, 1984, 113–14, 143–48 and *passim*.

Modern ed. ---

EDS London, Guilielmus Jones, 1620, second part, sig. 1–46 (parallel Greek and Latin texts).

MSS ---

A.4. *Phaseis* [Greek]

The *Phaseis* or *Phases of the Fixed Stars* (Greek: *Φάσεις ἀπλανῶν ἀστέρων καὶ συναγωγὴ ἐπισημασιῶν*, 'Appearances of the Fixed Stars and Collection of Prognostics') consists of two books dealing with the heliacal risings and settings of the fixed stars and their influence on the weather. Only Book II (a parapegma arranged according to the twelve months, from September to August, preceded by an introduction) survives in Greek and it is from this defective Greek version that the two sixteenth- and seventeenth-century Latin translations were made (A.4.1–2). Traces of both books survive in Arabic.

Bibl. Delambre 1817, I, 212–13; L. Ideler, 'Ueber den Kalender des Ptolemäus', in *Abhandlungen der Königlichen Akademie der Wissenschaften in Berlin aus den Jahren 1816–1817. Historisch-philologische Klasse*, Berlin, 1819, 163–214; N. Halma, *Chronologie de Ptolémée*, Paris, 1819, II, third part, 1–54 [where the introduction, pp. 3–11, is a French translation of Ideler's introduction, pp. 163–73]; A. Boeck, *Über die vierjährigen Sonnenkreise der Alten, vorzüglich den Eudoxischen. Ein Beitrag zur Geschichte der Zeitrechnung und des Kalenderwesens der Ägypter, Griechen und Römer*, Berlin, 1863, 226–53; G. F. Unger, 'Zu Ptolemäus Φάσεις ἀπλανῶν', *Philologus* 28 (1869), 11–38; C. Wachsmuth, *Iohanni Laurentii Lydi Liber de ostentis et calendaria Graeca omnia*, Leipzig, 1897 (first ed. Leipzig, 1863), LII–LVIII; Heiberg 1907, III–V and CL–CLXV; G. Hellmann, 'Über die ägytischen Witterungangaben im Kalender von Claudius Ptolemaeus', *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften* (1916), 332–41; H. Vogt, *Der Kalender des Claudius Ptolemäus*, Heidelberg, 1920; O Neugebauer 1975, II, 926–31; G. Graßhoff, 'The Babylonian Tradition of Celestial Phenomena and Ptolemy's Fixed Star Calendar', in *Die Rolle der Astronomie in den Kulturen Mesopotamiens*, ed. H. D. Galter, Graz, 1993, 97–137; L. Taub, *Ptolemy's Universe. The Natural Philosophical and Ethical Foundations of Ptolemy's Astronomy*, Chicago, 1993, 125; M. T. Riley, 'Ptolemy's Use of His Predecessors' Data', *Transactions of the American Philological Association* 125 (1995), 221–50: 242–45; D. Lehoux, *Astronomy, Weather, and Calendars in the Ancient World. Parapegmata and Related Texts in Classical and Near-Eastern Societies*, Cambridge, 2007, 161; M. G. Nickiforov, 'Analysis of the Calendar C. Ptolemy "Phases of the Fixed Stars"', *Bulgarian Astronomical Journal* 20 (2014), 68–85; L. Bellizia, *Φάσεις ἀπλανῶν ἀστέρων καὶ συναγωγὴ ἐπισημασιῶν. Apparizioni delle stelle inerranti e raccolta di indicazioni sui mutamenti del tempo*, Savona, 2017. **In Arabic:** O. Neugebauer, 'An Arabic Version of Ptolemy's Parapegma from the "Phaseis"', *Journal of the American Oriental Society* 91 (1971), 506; J. Samsó, B. Rodríguez, 'La *Pháseis* de Ptolomeo y el *Kitāb al-Anwā'* de Sinān b. Ṯābit', *Al-Andalus* 41 (1976), 15–48 (reprinted in J. Samsó, *Astrometeorología y astrología medievales*, Barcelona, 2008, II); J. Samsó, 'De nuevo sobre la traducción árabe de las *Pháseis* de Ptolomeo y la influencia clásica en los *Kutub al-Anwā'*', *Al-Andalus* 41 (1976), 471–79 (reprinted in J. Samsó, *Astrometeorología y astrología medievales*, Barcelona, 2008, III); Sezgin 1974–1979, VII, 311 (no. 1); R. Morelon, 'Fragment arabe du premier livre du *Phaseis*', *Journal for the History of Arabic Science* 5 (1981), 3–14.

Modern ed. The Greek text (Book II) was first published by Denis Petau in Paris in 1630 (see A.4.2) and received critical editions by Wachsmuth, 197–276 (with reconstructed table of appearances, 277–85) and Heiberg 1907, 3–67 (with reconstructed table of appearances, CLX–CLXV). The same Book II had been previously published by Johann Albert Fabricius, *Bibliotheca Graeca*, IV, Hamburg, 1717, 423–48 (not complete); Ideler, 173–93; and Halma, 13–54 (with a French translation). For the intricate history of these previous editions, see Wachsmuth, LII–LIV. Heiberg's edition is reproduced, together with an English translation, by Lehoux, 261–309. Italian translation by Bellizia. The Arabic remnants of Book I have been edited, together with a French translation, by Morelon.

A.4.1. *Inerrantium stellarum apparitiones et significationum collectio*, tr. Federico Bonaventura

Book II only (as in Greek), translated by the prolific writer and translator of meteorological works Federico Bonaventura (1555–1602), who published it in Urbino in 1592. Bonaventura used a Greek manuscript which belonged to Gian Vincenzo Pinelli (1535–1601), whose library was acquired by the Biblioteca Ambrosiana in Milan in 1608, but no Latin manuscript of the *Phaseis* has been found there (see Heiberg). Bonaventura wrote an extensive commentary on this work (C.4.1).

Text '(ed. Urbino 1592) Claudii Ptolemaei inerrantium stellarum apparitiones et significationum collectio, Federico Bonaventura interprete. Inerrantium stellarum apparitiones quot nam habeant differentias quasve causas — in quo dici magnitudo ad horas 15 extenditur. Finis.'

Bibl. C. Wachsmuth, *Iohanni Laurentii Lydi Liber de ostentis et calendaria Graeca omnia*, Leipzig, 1897, LII–LVIII; Heiberg 1907, CLII–CLIV.

Modern ed. ---

EDS Urbino, Bartholomeus Ragusius & Simon Ragusius, 1592, second part, sig. 5–46
Venice, Franciscus de Franciscis Senensis, 1594, sig. 5–46

MSS ---

A.4.2. *De apparentiis inerrantium et significationibus*, tr. Denis Petau

Book II only (as in Greek, but without the introduction), translated by Denis Petau (1583–1652) and published by him as part of his *Uranologium* in Paris in 1630, together with his *editio princeps* of the Greek text in two columns. The Greek manuscript used by Petau is now Paris, BnF, gr. 2390.

Text '(ed. Paris 1630) Ptolemaei de apparentiis inerrantium et significationibus, Dyonisio Petavio interprete. Mensis Thoth sive September. Hora XIV, quae est in cauda Leonis oritur Hipparcho. Etesiae desinunt. Eudoxo pluviae, tonitrua — quarum dies longissimus inter horas aequinoctiales XIV et XV continetur.'

Bibl. C. Wachsmuth, *Iohanni Laurentii Lydi Liber de ostentis et calendaria Graeca omnia*, Leipzig, 1897, LII–LVIII; Heiberg 1907, CLV.

Modern ed. No modern edition, but the text from the 1630 edition was reprinted among Petau's works twice in the 18th c.: *Dionysii Petavii Aurelianensis Opus de doctrina temporum*, III, Antwerp, Georgius Gallet, 1703, sig. 42–53; and *Dionysii Petavii Aurelianensis De doctrina temporum*, III, Venice, Bartholomaeus Baronchelli, 1757, sig. 40–53.

EDS Paris, Sebastianus Cramoisy, 1630, sig. 71–94

MSS ---

A.5. *Analemma* [Greek]

The *Analemma* (Greek: *Περὶ ἀναλήμματος*) deals with the means for plotting the celestial coordinates of the Sun or any other heavenly body for any geographical latitude at any time, which is relevant, e.g., to the construction of sundials. The original text is lost in Greek, except for a number of fragments, and survives in full in Latin only (A.5.1).

Bibl. Delambre 1817, II, 458–503; J. L. Heiberg, 'Ptolemäus de Analemmate', *Abhandlungen zur Geschichte der Mathematik* 7 (1895), 1–30; Heiberg 1907, XI–XII and CLXXIX; P. Luckey, 'Das Analemma von Ptolemäus', *Astronomische Nachrichten* 230 (1927), no. 5498, 17–46; A. G. Drachmann, 'Heron and Ptolemaeios', *Centaurus* 1 (1951), 117–31; Neugebauer 1975, II, 839–56; D. R. Edwards, *Ptolemy's 'Peri Analemmatos' – an Annotated Transcription of Moerbeke's Latin Translation and of the Surviving Greek Fragments, with an English Version and Commentary*, PhD dissertation, Brown University, 1984; R. Sinisgalli, S. Vastola, *L'Analemma di Tolomeo*, Firenze, 1992; N. Sidoli, *Ptolemy's Mathematical Approach: Applied Mathematics in the Second Century*, PhD dissertation, University of Toronto, 2004, 182–211; Pedersen 2011, 403–04; Tolsa 2013, 243–45; J. Guerola Olivares, *El Collegio Romano I els orígens de la trigonometria: De l'*Analemma *de Ptolemeu a la gnomonica de Clavius*, PhD dissertation, Universitat Autònoma de Barcelona, 2018, 50–145; N. Sidoli, 'Mathematical Methods in Ptolemy's *Analemma*', in Juste/van Dalen 2020, 35–77.

Modern ed. The extant Greek fragments have been edited by Heiberg, 'Ptolemäus', 10–25; Heiberg 1907, 194–216; and Edwards, 136–51.

A.5.1. *Liber de Analemmate*, tr. William of Moerbeke

Translated from the Greek by William of Moerbeke probably in 1270. MS Vatican, BAV, Ott. lat. 1850 is William's autograph copy [Plate 5]. Federico Commandino revised William of Moerbeke's translation and published it, together with his commentary, in 1562 (C.4.2). Johannes Praetorius also wrote a commentary on the text (C.4.3).

Note MS Oxford, BL, Savile 9, s. XVII, contains, under the title 'Ptolemaeus de Analemmate', definitions of astronomical terms, such as 'horizon', 'meridianus', 'verticalis', etc. (f. 1r–1v); and, under the title 'De angulis et peripheriis subtensis ex doctrina Ptolemaei', various astronomical notes on sundials (f. 2r–9r). On this manuscript, see Madan/Craster 1922–1937, II.2, 1099 (no. 6556).

Text '(Vatican, BAV, Ott. lat. 1850) Claudii Ptolemei liber de Analemmate incipit. Consideranti mihi, o Syre, angulorum acceptorum in locum gnomonicum quod rationale et quod non, habitum quidem virorum illorum in lineis accidit admirari etiam in hiis et valde acceptare — horarii autem ad eum qui secundum verticem, descensivi autem ad orizontem. Habent autem et canones ita' (followed by the table 'Cancri principium horarum 13').

Bibl. Björnbo 1909, 99 (no. 16); Carmody 1956, 16 (no. 2). See also A.5 and C.4.2–3.

Modern ed. Heiberg, 'Ptolemäus' (from Vatican, BAV, Ott. lat. 1850); Heiberg 1907, 189–223 (from Vatican, BAV, Ott. lat. 1850); Edwards, 33–76 (from Vatican, BAV, Ott. lat. 1850, with an English translation, 77–135); Sinisgalli/Vastola (from ed. Rome 1562 [about which see C.4.2] with facing Italian translation); Guerola Olivares, 287–321 (from Vatican, BAV, Barb. lat. 304, with facsimile on 323–43).

EDS ---

MSS Florence, BM, A 109, s. XVII, f. 21v–23r
Milan, BA, R. 109 sup., s. XVI, f. 288r–292v
Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 214r–223v
Vatican, BAV, Barb. lat. 304, s. XVI, f. 150r–160r
Vatican, BAV, Ott. lat. 1850, s. XIII, f. 62ra–64vb

A.6. *Planispherium* [Greek]

The *Planispherium* (Greek: *Ἁπλωσις ἐπιφανείας σφαίρας*, 'Simplification of the Sphere', a title attested in the tenth-century *Suidas*, see Sidoli/Berggren, 37 n. 1; Arabic: *Kitāb Tasṭīḥ basīṭ al-kura*, 'Book of the Projection of the Surface of the Sphere') deals with the projection of the celestial circles onto a plane. The text is lost in Greek but survives in Arabic, in an anonymous translation probably made in the ninth century, and in two Latin translations, by Hermann of Carinthia in 1143 (A.6.1) and by Isaac Hebreus in 1518 (A.6.2), both of which ultimately derive from the Arabic.

Bibl. Delambre 1817, II, 433–57; Steinschneider 1893, II, 532–34; Heiberg 1907, XII–XIV and CLXXX–CLXXXVI; Sezgin 1974–1979, V, 170 (no. 1), and VI, 95 (no. III); Neugebauer 1975, II, 857–79; P. Kunitzsch, *Glossar der arabischen Fachausdrücke in der mittelalterlichen europäischen Astrolabliteratur*, Göttingen, 1983 (*Nachrichten der Akademie der Wissenschaften in Göttingen*, I: *Philologisch-Historische Klasse* 11 (1982), 459–571), 484–85; C. Anagnostakis, *The Arabic Version of Ptolemy's Planisphaerium*, PhD dissertation, Yale University, 1984; J. L.

Berggren, 'Ptolemy's Maps of the Earth and the Heavens: A New Interpretation', *AHES* 43 (1991), 133–44; R. Sinisgalli, S. Vastola, *Il planisfero di Tolomeo*, Firenze, 1992; P. Kunitzsch, 'The Second Arabic Manuscript of Ptolemy's *Planisphaerium*', *ZGAIW* 9 (1994), 83–89 (reprinted in Kunitzsch 2004, VI); Kunitzsch/Lorch 1994; R. Lorch, 'Ptolemy and Maslama on the Transformation of Circles into Circles in Stereographic Projection', *AHES* 49 (1995), 271–84; P. Kunitzsch, 'The Role of al-Andalus in the Transmission of Ptolemy's *Planisphaerium* and *Almagest*', *ZGAIW* 10 (1995–1996), 147–55 (reprinted in Kunitzsch 2004, VII): 150–54; N. Sidoli, *Ptolemy's Mathematical Approach: Applied Mathematics in the Second Century*, PhD dissertation, University of Toronto, 2004, 211–29; N. Sidoli, J. L. Berggren, 'The Arabic Version of Ptolemy's *Planisphere* or *Flattening the Surface of the Sphere*: Text, Translation, Commentary', *SCIAMVS* 8 (2007), 37–144; Pedersen 2011, 405; Tolsa 2013; 245–46. See also A.6.1.

Modern ed. Critical edition of the Arabic text, together with an English translation, by Sidoli/Berggren. A facsimile of one of the two known Arabic MSS, together with an English translation, had previously been provided by Anagnostakis. For the Latin text, see A.6.1–2.

A.6.1. *Planispherium*, tr. Hermann of Carinthia

Translated from the Arabic by Hermann of Carinthia in Toulouse in 1143 and dedicated to Thierry of Chartres. Hermann used a version 'edited' by Maslama of Madrid (Abū al-Qāsim Maslama ibn Aḥmad al-Faraḍī al-Majrīṭī, d. 1007/1008), who added a number of explanatory notes and chapters to Ptolemy's text, and to whom Hermann refers as 'Maslem', 'Meslem' or 'Abualcacim Maslem filius Ameti'. Hermann believed that Maslama was the translator of the text into Arabic (cf. 'ipsum Maslem in Arabicam transtulit' at the end of the preface, ed. Burnett, 111). Kunitzsch and Lorch (Kunitzsch/Lorch 1994, 8–10 and 34–35) have divided the manuscripts into three classes, each by a different author or translator. Class I is Hermann's translation, which includes Maslama's 'Notes' 1–3, 6–7, 9 and 11 within the text. Class II is a reworking which includes Maslama's Notes 1–3 and 5–11 within the text, in the margins or at the end, as well as Maslama's 'Extra Chapter'. Class III is yet another reworking which includes Maslama's Notes 1–11 in the margins, Maslama's Extra Chapter in a different translation and Maslama's 'Astrolabe Chapters'. The author of Class III also translated portions of Ptolemy's text anew. In most manuscripts of Class I and in the two manuscripts of Class III, the text is followed by a summary of Ptolemy's propositions under the title *Propositiones planisperii*. Stefan Georges convincingly showed that the person responsible for Class II is in fact Gerard of Cremona. In ed. Venice 1536, the translation is ascribed to Rudolf of Bruges ('Rodulphi Brughensis ad Theodorichum Platonicum in traductionem Planispherii Claudii Ptolemaei praefatio', see also Note 3 below). Although Kunitzsch and Lorch did not consider this possibility (they were not aware of the existence of ed. Venice 1536), Rudolf might be a good candidate for the authorship of Class III, for in his

treatise on the astrolabe, written in or after 1144, he presents himself as Hermann's pupil ('Rodolfus Brugensis Hermanni Secundi discipulus') and acknowledges his debt to 'Ptolemy's *Planispherium* translated by Hermann' ('Planisperium Ptolomei ab Hermanno Secundo translatum'). See R. Lorch, 'The Treatise on the Astrolabe by Rudolf of Bruges', in Nauta/Vanderjagt 1999, 55–100 (60 and 67 for the Latin quotations); and C. Burnett, 'Béziers as an Astronomical Center for Jews and Christians in the Mid-Twelfth Century', *Aleph* 17 (2017), 197–219: 208–12. The *Planispherium* was commented upon by Federico Commandino (C.4.5).

Note 1 A couple of short Latin fragments, corresponding to the beginning of chs 2 and 3 of the *Planispherium* (ed. Heiberg 1907, 220, lines 4–6, and 231, lines 15–20) in a translation from the Arabic, appear in a compilation of excerpts from the oldest Latin corpus on the astrolabe put together in Catalonia *c.* 1000: MS Paris, BnF, lat. 7412, s. XI, f. 11r–11v ('Dixit Ptolomeus: Exient toti circuli de alafac... Et dicam quia si alium circulum faciemus declinatum...'). These fragments have been edited by P. Kunitzsch, 'Fragments of Ptolemy's *Planisphaerium* in an Early Latin Translation', *Centaurus* 36 (1993), 97–101 (reprinted in Kunitzsch 2004, VIII).

Note 2 In addition to the manuscripts listed below, there once existed at least two more thirteenth-century copies of the *Planispherium*. One is referred to as 'De planisperio sive de alzagara Tholomei' in the table of contents of MS →Paris, BM, 3642. The other is referred to as 'Planisperium Ptolomei' in the two medieval tables of contents found on f. 1r of MS Paris, BnF, lat. 16652, where it was the opening text. The other texts contained in this manuscript are Pseudo-Messahallah, *De compositione astrolabii*, attr. John of Seville ('Compositiones astrolabii Iohannis Hispalensis/Yspaniensis') and whose beginning is missing (2r–6v); Azarchel, *Saphea*, tr. Guillelmus Anglicus (7r–9v); Hermann of Reichenau, *De mensura astrolabii* (11r–14v); *De utilitatibus astrolabii* (14v–21v); Berengarius, *De horologio viatorum* (21v–24r); Rudolf of Bruges, *De compositione astrolabii* (24r–28r); Arialdus, *De compositione astrolabii* (28r–37v); 'Tres circulos in astrolapsu descriptos...', added by a later hand (38ra–39ra); Boethius, *De musica* (44r–95r). Paris, BnF, lat. 16652 belonged to Richard of Fournival, Gerard of Abbeville and to the college of Sorbonne. On this manuscript, see Miolo 2017, II, 142–51.

Note 3 An edition of 1544, in which the translation is attributed to Rudolf of Bruges, is mentioned by S. F. G. Hoffmann, *Lexicon bibliographicum sive index editionum et interpretationum scriptorium Graecorum tum sacrorum tum profanorum*, III: *L-Z*, Leipzig, 1836, 503: '1544, f. Ptolemaei Planisphaerium, translatus ex Arabico sermone Maslemi, in Latinum per Rudolphum Brugensem. Tolosae.' This edition has not been found.

Text '(ed. Heiberg and Burnett) **[TRANSLATOR'S PREFACE]** Quemadmodum Ptolomeus et ante eum nonnulli veteris auctoritatis viri antiquas seculi scribunt historias — quam qua id ipsum Maslem in Arabicam transtulit. **[TEXT]** Cum sit possibile, Iesure, et plerumque necessarium ut in plano represententur circuli in speram corpoream incidentes, tamquam plana esset, consultum visum est in veritate scientie — cum ipsis circulis tropicis et cum circulis meridianis signa distinguentibus.'

Maslama's Notes '(ed. Kunitzsch/Lorch) [1] In hunc librum Maslem commentans ait ut descriptis equidistantibus recto hinc unde circulis deducatur... [2] Addit Maslem argumentum: lineam HE in directum... [3] Hic locus est argumenti Maslem: quia deprehensum est, inquid, quota distantia... [4] Dixit Meslem: et est ad hoc etiam via facilior... [5^1] Dixit Maslem: et si intenderet Ptolemeus... [5^2] Dixit Meslem: si animadvertisset Ptholomeus... [6] Hic subiungit Maslem quod cum huiusmodi circulus... [7^1] Noto igitur, ut Maslem addit, circulo equidistante zodiaco... [7^2] Alia translatio, dixit Meslem: quando facies circulum equidistantem... [8^1] Dixit Maslem: et non declaravit quod centra non sunt super... [8^2] Dixit Meslem: non declaravit quod centra non sint super... [9^1] In alio, dixit Maslem: et ex complemento huius questionis... [9^2] Alia translatio, dixit Meslem: de complemento huius propositionis... [9^3] Deinde argumentum quod Maslem subiungit addends... [10^1] Et ex sermone eius etiam est: verumtamen complebo quod oportet... [10^2] Et ut compleam quod oportet compleri... [11] Addit Maslem quoniam hec linea recta secat — recto medium secet, et hunc per zodiaci polum necessario transire.'

Maslama's Extra Chapter '(ed. Kunitzsch/Lorch) **[CLASS II]** Capitulum quod non est de libro quod edidit Abualcacim Maslem filius Ameti. Dixit Maslem filius Hameti: Iam rememoratus est Ptolemeus in hoc libro qualiter describamus circulum orizontis — tibi quod volueris de scientia tabularum. Et laus sit Deo creatori gentium. **[CLASS III]** Sectio que non est de libro quam dixit Meslem usque ad primam sectionem quam Ptholomeus. Iam memoravit Ptholomeus in hoc libro quomodo lineentur orizontes — cum eodem numero elevatur cum quo occidit. Et secundum hoc fit artificium laminarum.'

Maslama's Astrolabe Chapters '(ed. Kunitzsch/Lorch) Et hec capitula non pretermittat qui voluerit facere astrolabium que compilavimus de figura sectionis. Ad scientiam extrahendi elevationis signorum in orbe recto — et quod provenerit est nadair gradus occasus. Intelligas. Explicit.'

Propositiones planisperii '(ed. Kunitzsch/Lorch) Incipit prima propositio planisperii. Quoslibet duos circulos equidistantes recto in spera corporea — recto per polum zodiaci transire necesse est vel habet. Expliciunt propositiones. [TWO ADDITIONAL CHAPTERS] Si a termino unius diametri circuli recti ducatur linea per centrum circuli — ad ED semidiametrum circuli recti. Radicem planisperii sic colligere possumus. Constat planisperium nichil aliud esse quam planitiem equinoctialis — in plano datum punctum in spera potentialiter ostendit.'

Bibl. A. d'Avezac, 'Le planisphère de Claude Ptolémée', *Comptes Rendus des Séances de l'Académie des Inscriptions et Belles-Lettres* 7 (1863), 333–37; Wüstenfeld 1877, 50–53; Steinschneider 1893, II, 534–36; Steinschneider 1904, 34 (no. 51d) and 74 (no. 104a); Haskins 1927, 47; E. Poulle, 'L'astrolabe médiéval d'après les manuscrits de la Bibliothèque nationale',

Bibliothèque de l'Ecole des Chartes 112 (1954), 81–103: 100; Carmody 1956, 18 (no. 9); R. B. Thomson, *Jordanus de Nemore and the Mathematics of Astrolabes:* De plana spera, Toronto, 1978, 47–52; C. Burnett, 'Arabic into Latin in Twelfth Century Spain: The Works of Hermann of Carinthia', *Mittellateinisches Jahrbuch* 13 (1978), 100–34: 108–12; Kunitzsch/Lorch 1994; Georges (forthcoming).

Modern ed. Critical edition by Heiberg 1907, CLXXX–CLXXXVI (translator's preface, from three MSS: Dresden, SLUB, Db. 86; Paris, BnF, lat. 7399; and Vatican, BAV, Reg. lat. 1285) and 227–59 (text, without Maslama's added material, from six MSS: Dresden, SLUB, Db. 86; Oxford, BL, Auct. F.5.28; Paris, BnF, lat. 7214; Paris, BnF, lat. 7399; Vatican, BAV, Reg. lat. 1285; and Vatican, BAV, Vat. lat. 3096), and by Sinisgalli/Vastola (in three columns from the three early printed editions, with an Italian translation). Hermann's preface has been re-edited by Burnett, 109–11 (with translation, 111–12), who improved on Heiberg's edition by using MS Paris, BnF, lat. 7377B. German translation of Heiberg's edition by J. Drecker, 'Das Planisphaerium des Claudius Ptolemaeus', *Isis* 9 (1927), 255–78. Maslama's added material in Latin has been edited by Kunitzsch/Lorch 1994, 36–54 (Notes), 54–63 (Extra Chapter) and 65–71 (Astrolabe Chapters). Kunitzsch/Lorch have also edited additions found in the two MSS of Class III (Appendix I, 99–104) and the *Propositiones planisperii* (Appendix II, 106–14). Maslama's added material in Arabic has been edited by J. Vernet, M. A. Catalá, 'Las obras matematicas de Maslama de Madrid', *Al-Andalus* 30 (1965), 15–45: 22–26 (Extra Chapter) and 26–28 (Astrolabe Chapters), with a Spanish translation, 28–45; and by Kunitzsch/Lorch 1994, 12–33 (Notes, with an English translation).

EDS Rome, Bernadinus Venetum de Vitalibus, 1507, sig. O_ir–[O_{vii}]r (Class I)
Basel, Iohannes Valderus, 1536, sig. 227–274 (Class I)
Venice, Paulus Manutius Aldi, 1558, first part, sig. 1r–25v (Class I)

MSS Cracow, BJ, 1924, s. XIII, pp. 165–189 (Class I)
Dresden, SLUB, Db. 86, s. XIII, f. 214r–222r (Class III)
Escorial, RBMSL, d.II.5, s. XV–XVI, f. 64r–71v (Class I)
Lyon, BM, 328, s. XIV, f. 47r–58r (Class I)
Milan, BA, A. 183 inf., s. XIII–XIV, f. 14r–20r (Class I)
Oxford, BL, Auct. F.5.28 (3623), s. XIII, f. 88r–96v and 55v–57v (Class III)
Oxford, CCC, 224, s. XIII, f. 139r–141r (*Propositiones planisperii* only)
Paris, BnF, lat. 7214, s. XIV, f. 211ra–217vb (Class I)
Paris, BnF, lat. 7377B, s. XII–XIII, f. (61r–81r) (Class II)
Paris, BnF, lat. 7399, s. XIII, f. 1r–12v (Class I)
Parma, BP, 984, s. XV, f. 106r–115r (Class II)
Seville, BCC, 7-7-12, s. XVI, f. 78r–92r (Class II)
Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 166r–173v (Class I)
Vatican, BAV, Reg. lat. 1285, s. XIII, f. 153ra–162ra (Class II)
Vatican, BAV, Vat. lat. 3096, s. XIV, f. 3r–14r (Class II)
Vienna, ÖNB, 5496, s. XV, f. 1r–11v (Class I)
Vienna, ÖNB, 10905, s. XVI, f. 157v–170v (Class I)

A.6.2. *Demonstrationes astrolabii*, tr. Isaac Hebreus

This previously unnoticed translation of the *Planispherium* is said to have been 'corrected and rectified' by one master Isaac Hebreus ('magister Hisaac Hebreus'), but it really is a new translation, distinct from Hermann of Carinthia's (A.6.1). It is extant in a unique copy dated 1518, which, judging from the corrections, is probably the autograph [Plate 23]. The text ultimately derives from the Arabic version edited by Maslama al-Majrīṭī's, for it includes Maslama's added material (see A.6.1), here attributed to 'Mesulam' (e.g., f. 81v, 82v and 83r) or to 'Abo Alcasis Mesulam filii Alchamad' (Extra Chapter f. 84v–85r), but it appears to have been translated from a Hebrew intermediary. This is already suggested by the name of the translator and by the nature of the manuscript, which mixes scientific texts in Latin and in Hebrew in a most unusual way. Moreover, the beginning and the end of the text fully match the Hebrew version as found in MS Modena, BEU, or. 27 (Alfa O.3.14), f. 116v–122r (my thanks to Niran Garshtein, who translated the relevant passages for me). This Hebrew version is generally believed to be a translation of Hermann of Carinthia's Latin version (see Steinschneider 1893, II, 535–36; Kunitzsch/Lorch 1994, 84; and R. Lorch, 'Ptolemy and Maslama on the Transformation of Circles into Circles in Stereographic Projection', *AHES* 49 (1995), 271–84: 276), but this question would perhaps deserve a fresh investigation. The translator 'magister Hisaac Hebreus' must be identified with the 'magister Hysaach Hebreus Francigena' who translated, also from Hebrew, Savasorda's *Liber de forma terrae et de figuratione corporum coelestium necnon de ordine motus stellarum* (= Abraham bar Ḥiyya, *Ṣurat ha-ʿareṣ*, 'The Form of the Earth'), whose unique copy (Vatican, BAV, Ott. lat. 2079, see also Note below) is in the same hand as the *Demonstrationes astrolabii*. The translation of Savasorda's work provides us with some context for it is dedicated to 'Albertus Pius de Sabaudia', i.e., Alberto III Pio, prince of Carpi (1475–1531), a patron of humanists and dedicatee of scientific works, including Hebrew-into-Latin translations. This matches the context of the *Demonstrationes astrolabii*, not only the date (1518), but also the fact that the manuscript was copied in northern Italy, perhaps in Mantua, about 50 kilometers north of Alberto Pio's castle in Carpi.

Note The translation of Savasorda's *Liber de forma terrae et de figuratione corporum coelestium necnon de ordine motus stellarum* ('Liber de forma terrae et de figuratione corporum coelestium necnon de ordine motus stellarum. Dixit Abraam patriarcha filius Rabi Chagia Hispani: Scientia astrorum iuxta hominum opinionem in duas maximas dividitur partes — et precepta ipsius legis omnibus diebus nostris. Amen. Expletus est hic perutilis ac preciosus tractatus de astrologia quem traduxit ex Hebreo in Latinum magister Hysaach Hebreus Francigena ad complascentiam magnanimi

ac sapientissimi principis domini Alberti Pii de Sabaudia. Laus Deo', MS Vatican, BAV, Ott. lat. 2079, f. 1r–51v) has been briefly discussed by M. Steinschneider, 'Abraham Judaeus — Savasorda und Ibn Esra. Zur Geschichte der mathematischen Wissenschaften im 12. Jahrhundert', *Zeitschrift für Mathematik und Physik* 12 (1867), 1–44: 12 (reprinted in M. Steinschneider, *Gesammelte Schriften*, I, Berlin, 1925, 327–87: 342–43), and by J. M. Millàs Vallicrosa, *La obra Forma de la Tierra de R. Abraham bar Ḥiyya Ha-Bargeloní*, Madrid-Barcelona, 1956, 19–20, but the faulty reading 'Alberti Sii' (instead of 'Alberti Pii') in the colophon prevented these scholars from identifying the dedicatee. The colophon was correctly transcribed by G. Mercati, *Codici latini Pico Grimani Pio e di altra biblioteca ignota del secolo XVI esistenti nell'Ottoboniana e I codici greci Pio di Modena*, Città del Vaticano, 1938, 48–49, who identified Alberto Pio as the dedicatee and drew attention to another translation in the same hand (i.e., Isaac Hebreus's), namely Levi ben Gerson's *Liber sillogismi recti*, in MS Vatican, BAV, Ott. lat. 1906, a manuscript which Mercati believes to have belonged to Alberto Pio. On Alberto Pio, see C. B. Schmitt, 'Alberto Pio and the Aristotelian Studies of His Time', in *Società, politica e cultura ai tempi di Alberto III Pio*, Padua, 1981, 43–64 (reprinted in C. B. Schmitt, *The Aristotelian Tradition and Renaissance Universities*, London, 1984, VI), esp. 44–45 and 60.

Text '(Milan, BA, D. 114 inf.) Demonstrationes astrolabii a Ptholomeo editae, correctae et rectificatae per magistrum Hisaac Hebreum. **[TEXT]** Scripsit Ptholomeus ad Sirum: Postquam possibile est ut circuli secantes sphaeram appareant in superficie plana — (84v) non oportet dividere circulos per singulos gradus, sed sufficit divider eos per 30 gradus. **[MASLAMA'S EXTRA CHAPTER]** Sequens capitulum non est Ptolomei sed est Abo Alcasis Mesulam filii Alchamad. Dixit Ptolomeus: Docuit in hoc tractatu quomodo debeamus describere orizontem et paralellos eius, qui dicuntur almucantarat — arcus eque divident horizontem et omnes eius paralellos. Finis. — כבודך ה' י"ט תשרי רע"ט לע"כ.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Milan, BA, D. 114 inf., s. XVI, f. 76r–85r

A.7. *Handy Tables* [Greek]

The *Handy Tables* (Greek: *Πρόχειροι κανόνες*, 'Handy Tables') consists of a set of astronomical tables and instructions for their use. The tables and the instructions circulated independently from each other in the manuscripts and the tables have been preserved, in almost all manuscripts, together with Theon of Alexandria's *Little Commentary to the Handy Tables of Ptolemy* (*c.* 360). The *Handy Tables* does

not survive as such in Arabic and in Latin (but see A.7.1), even though it represents the prototype of most Arabic and Latin astronomical tables.

Bibl. Delambre 1817, II, 616–35; F. Boll, 'Beiträge zur Überlieferungsgeschichte der griechischen Astrologie und Astronomie', *Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Phil.-Hist. Klasse* 1899, 77–140: 110–38; Heiberg 1907, x–xi, clxxv–clxxix and cxc–ccIII; A. Rome, 'Le problème de l'équation du temps chez Ptolémée', *Annales de la Société Scientifique de Bruxelles* 59 (1939), 211–24; B. L. van der Waerden, 'Bemerkungen zu den Handlichen Tafeln des Ptolemaios', *Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse*, 1953, 261–72; B. L. van der Waerden, 'Die Handlichen Tafeln des Ptolemaios', *Osiris* 13 (1958), 54–78; A. Aaboe, 'On the Tables of Planetary Visibility in the Almagest and the Handy Tables', *Det Kongelige Danske Videnskabernes Selskab. Historisk-filosofiske Meddelelser* 37.8 (1960), 1–20; W. D. Stahlman, *The Astronomical Tables of Codex Vaticanus Graecus 1291*, PhD dissertation, Brown University, 1960; A. Tihon, 'Les scolies des Tables Faciles de Ptolémée', *Bulletin de l'Institut Historique Belge de Rome* 43 (1973), 49–110; Neugebauer 1975, II, 969–1028; A. Tihon, *Le 'Petit Commentaire' de Théon d'Alexandrie aux Tables Faciles de Ptolémée. Histoire du texte, édition critique, traduction*, Vaticano, 1978; D. Pingree, 'An Illustrated Greek Astronomical Manuscript. Commentary of Theon of Alexandria on the Handy Tables and Scholia and Other Writings of Ptolemy Concerning Them', *JWCI* 45 (1982), 185–92 (reprinted in Pingree 2014, 451–62); J. Mogenet, A. Tihon, *Le 'Grand Commentaire' de Théon d'Alexandrie aux Tables Faciles de Ptolémée. Livre I*, Vaticano, 1985; A. Tihon, 'Théon d'Alexandrie et les "Tables Faciles" de Ptolémée', *AIHS* 35 (1985), 106–23; D. H. Wright, 'The Date of the Vatican Illuminated Handy Tables of Ptolemy and of its Early Additions', *Byzantinische Zeitschrift* 78 (1985), 355–62; A. Jones, 'Ptolemy's First Commentator', *Transactions of the American Philosophical Society. New Series* 80 (1990), 1–61; A. Tihon, *Le 'Grand Commentaire' de Théon d'Alexandrie aux Tables Faciles de Ptolémée*, 2 vols, Vaticano, 1991 (*Livres II et III*) and 1999 (*Livre IV*); A. Tihon, 'Les Tables Faciles de Ptolémée dans les manuscrits en onciale (IX^{e}–XI^{e} siècles)', *Revue d'Histoire des Textes* 22 (1992), 47–87; J. Chabás, A. Tihon, 'Verification of Parallax in Ptolemy's *Handy Tables*', *JHA* 24 (1993), 123–41; B. van Dalen, 'On Ptolemy's Table for the Equation of Time', *Centaurus* 37 (1994), 97–153 (reprinted in B. van Dalen, *Islamic Astronomical Tables. Mathematical Analysis and Historical Investigation*, Farnham-Burlington, 2013, II); A. Tihon, 'Theon of Alexandria and Ptolemy's Handy Tables', in *Ancient Astronomy and Celestial Divination*, ed. N. M. Swerdlow, Cambridge (Mass.)-London, 1999, 357–69; A. Tihon, 'Les *Tables faciles* de Ptolémée: une édition critique', in Burnett/Hogendijk 2004, 223–46; N. W. Swerdlow, 'Ptolemy's Theories of the Latitudes of the Planets in the *Almagest*, *Handy Tables*, and *Planetary Hypotheses*, in *Wrong for the Right Reasons*, eds J. Z. Buchwald, A. Franklin, Dordrecht-Berlin, 2005, 41–71; F. Mitttenhuber, L. Koch, G. Grasshoff, 'Der handschriftliche Bestand des ptolemäischen Kanons bedeutender Städte und sein Verhältnis zur Geographie', *Museum Helveticum* 66 (2009), 29–58; Pedersen 2011, 397–400; A. Tihon, 'Alexandrian Astronomy in the 2nd Century AD: Ptolemy and His Times', in *The Alexandrian Tradition. Interactions between Science, Religion, and Literature*, eds L. A. Guichard, J. L. García Alonso, M. Paz de Hoz, Bern-Berlin, 2014, 73–91: 74–76; J. Lempire, *Le commentaire astronomique aux* Tables Faciles *de Ptolémée attribué à Stéphanos d'Alexandrie*, I: *Histoire du texte. Edition critique, traduction et commentaire (chapitres 1–16)*, Leuven, 2016; A. Tihon, 'Le diagramme

des horizons et les prosneuses des éclipses dans l'astronomie de Ptolémée', *Almagest* 9 (2018), 60–87; J. Chabás, *Computational Astronomy in the Middle Ages: Sets of Astronomical Tables in Latin*, Madrid, 2019, 22–34; F. Guidetti, 'Not in accordance with Ptolemy in some details': A Late Antique Revision of the *Handy Tables*', in *The Stars in the Classical and Medieval Traditions*, eds A. Hadravová, P. Hadrava, K. Lippincott, Praha, 2019, 45–91; A. Tihon, 'Le diagramme des horizons dans le Palimpseste *Vaticanus Syriacus 623*', in *Des cahiers à l'histoire de Byzance. Hommage à Paul Canart, codicologue (1927–2017)*, eds M. Cacouros, J.-H. Sautel, Leuven-Paris-Bristol, 2021, 183–205; O. Defaux, *La Table des rois. Contribution à l'histoire textuelle des Tables faciles de Ptolémée*, Berlin-Boston, 2023; **In Arabic**: Sezgin 1974-1979, VI, 95–96 (no. V); D. V. Proverbio, 'Theonis Alexandrini fragmentum pervetus arabice sul più antico manoscritto del *Commentarium parvum* di Tenone Alessandrino. Notizia preliminare', *Reconditi della Accademia Nazionale dei Lincei, Classe di Scienze morali, storiche e filologiche*, Ser. 9, Vol. 13 (2002), 373–86; G. Giuffrida, A. Németh, D. V. Proverbio, 'An Arabic-Greek Codex of Ptolemy's *Handy Tables* from the Eighth Century. Reassement of the Arabic Winds List and the Horizon Diagram in *Vat. sir.* 623', *The Vatican Library Review* 2 (2023), 1–41. **In Latin (see also A.7.1):** C. P. E. Nothaft, 'A Thirteenth-Century Latin List of Ptolemaic Coordinates', *Mediterranea. International Journal on the Transfer of Knowledge* 7 (2022), 1–15.

Modern ed. Both the tables and the instructions received a first edition, together with a French translation, by N. Halma, *Commentaire de Théon d'Alexandrie sur le livre III de l'Almageste de Ptolémée. Tables manuelles des mouvemens des astres*, Paris, 1822–1825, 3 vols (without critical apparatus). Critical edition of the instructions by Heiberg 1907, 159–85. The tables from MS Vatican, BAV, Vat. gr. 1291 have been edited by Stahlman. A critical edition of the tables is in the process of being published by A. Tihon and R. Mercier, see *Πτολεμαίου Πρόχειροι Κανόνες. Les Tables Faciles de Ptolémée*, 1a (A. Tihon): *Tables A1-A2. Introduction, Edition critique*, Louvain-la-Neuve, 2011; 1b (R. Mercier), *Transcription and Commentary*, Louvain-la-Neuve, 2011. Table A20 (*Table of the Distances of the Fixed Stars*) has been edited by Guidetti, 62–73, and Table C1 (*Table of Kings*) by Defaux, 166–69.

A.7.1. *Preceptum canonis Ptolomei*, tr. before *c.* 1000

Translated from the Greek before *c.* AD 1000 (date of the earliest manuscript, London, BL, Harley 2506 [Plate 1]), this set of astronomical tables with canons ultimately derives from Theon of Alexandria's *Little Commentary to the Handy Tables of Ptolemy* and other sources. Only the tables for the Sun and the Moon are extant in the manuscripts. Pingree thought that the planetary tables were lost at an early stage in the transmission of the text, but it is rather likely that they never existed in the Latin version, as also suggested by the fact that only one of the 103 chapters of the canons (ch. 62) mentions the planets. Pingree dated the translation to 534/35, but this also needs to be examined again, as this date may as well be that of the Greek original (so Honigmann, 106; Van de Vyver, 687; and Mercier; see also Zingg). Likewise, Pingree's reconstruction of the early history of the text must be reconsidered in the light of Juste, 'Neither Observation'.

Text '(canons, ed. Pingree) Incipit Preceptum Canonis Ptolomei. **[1]** Intellectus climatum, polis episeme, requires si inveneris platos civitatis tibi date esse intra partes XV et minutas XV — **[103]** in apogion vero quod intuleris si non inveneris, requires superiorem et inferiorem; et addes aut deduces.'

Bibl. E. Honigmann, *Die sieben Klimata und die πόλεις επίσημοι. Eine Untersuchung zur Geschichte der Geographie und Astrologie im Altertum und Mittelalter*, Heidelberg, 1929, 102–07; A. Van de Vyver, 'Les plus anciennes traductions latines médiévales (X^{e}–XI^{e} siècles) de traités d'astronomie et d'astrologie', *Osiris* 1 (1936), 658–91: 687–89; R. P. Mercier, 'Astronomical Tables in the Twelfth Century', in *Adelard of Bath. An English Scientist and Arabist of the Early Twelfth Century*, ed. C. Burnett, London, 1987, 87–118: 115; D. Pingree, 'The *Preceptum Canonis Ptolomei*', in *Rencontres de cultures dans la philosophie médiévale. Traductions et traducteurs de l'Antiquité tardive au XIV^{e} siècle (Actes du Colloque international de Cassino, 15–17 juin 1989)*, eds J. Hamesse, M. Fattori, Louvain-la-Neuve-Cassino, 1990, I, 355–75 (reprinted in Pingree 2014, 113–33); Pingree 1997; D. Pingree, 'Avranches 235 dans la tradition manuscrite du *Preceptum Canonis Ptolomei*' [in English], in *Science antique, science médiévale. Actes du colloque international (Mont-Saint-Michel, 4–7 septembre 1998)*, eds L. Callebat, O. Desbordes, Hildesheim, 2000, 162–69; D. Juste, 'Neither Observation nor Astronomical Tables: An Alternative Way of Computing the Planetary Longitudes in the Early Western Middle Ages', in Burnett/Hogendijk 2004, 181–222: 181–85; E. Zingg, 'Benutzt Cassiodor in den *Institutiones* das *Preceptum Canonis Ptolomei* oder Ptolemaios' *Handliche Tafeln*?', in *Von der Antike begeistert! Philologie, Philosophie, Religion und Politik durch drei Jahrtausende. Festschrift für Christoph Riedweg*, eds C. Semenzato, L. Hartmann, Basel, 2023, 466–74.

Modern ed. Critical edition of the canons by Pingree 1997 (from all extant MSS). The tables are unpublished.

EDS ---

MSS Avranches, BM, 235, s. XII, f. 1r–26r
†Chartres, BM, 214 (173), s. XII, f. 1r–13v
Chartres, BM, 498 (142), s. XII, f. 174rb–197v
Florence, BNC, Conv. Soppr. J.IX.39, s. XII–XIII, f. 13r–32r
Hannover, NLB, IV 394, s. XII, f. 39r–53v and 54v–63v
London, BL, Harley 2506, s. X–XI, f. 55va–73v
Oxford, CCC, 283, s. XI–XII, f. 66r–81v
Paris, BnF, lat. 14754, s. XII, f. 233r–244r and 245r–255r

A.8. *Meteoroscope* [Greek]

The meteoroscope (Greek: μετεωροσκόπιον or ὄργανον μετεωροσκοπικόν; Arabic: *dhāt al-ḥalaq*, '<instrument> with rings') is an armillary sphere used for observational as well as computational purposes and consisting of nine rings (thus different from the seven-ring instruments described in *Almagest* V.1). Ptolemy's treatise on the meteoroscope was known through indirect sources only, until it was recently

discovered in a Greek palimpsest (see Gysembergh et al.). A commentary or paraphrase attributed to Theon of Alexandria is extant in Arabic (see Lorch). This text does not survive in Latin, but see R.45.

Bibl. K. Manitius, *Procli Diadochi Hypotyposis astronomicarum positionum*, Leipzig, 1909, 198–200; A. Rome, 'L'Astrolabe et le Météoroscope d'après le commentaire de Pappus sur le 5^{e} livre de l'Almageste', *Annales de la Société Scientifique de Bruxelles* 47 (1927), 77–102: 90–102; R. Lorch, 'The "Meteoroscope" Attributed to Theon of Alexandria. A Study of the Arabic Sources', in *I. International Congress on the History of Turkish-Islamic Science and Technology. İstanbul Teknik Üniversitesi, 14–18 September 1981. Proceedings*, Istanbul, 1981, I, 33–38; J. L. Berggren, A. Jones, *Ptolemy's Geography. An Annotated Translation of the Theoretical Chapters*, Princeton-Oxford, 2000, 61–62; V. Gysembergh, A. Jones, E. Zingg, P. Cotte, S. Apicella, 'Ptolemy's Treatise on the Meteoroscope Recovered', *AHES* 77 (2023), 221–40.

Modern ed. ---

B. *Pseudepigrapha*

B.1. *Karpos/Kitāb al-Thamara* [Greek/Arabic]

The *Καρπός* ('Fruit') or *Kitāb al-Thamara* ('Book of the Fruit'), better known by its Latin title *Centiloquium*, is a collection of 100 astrological aphorisms attributed to Ptolemy in all versions and in all languages throughout the Middle Ages and the early modern period. Boll ('Studien') was the first to demonstrate that Ptolemy was not the author and his conclusion has not been challenged since. There is, however, no consensus as to the origin of the text. Because there are no testimonies or quotations in ancient sources and because there are no Greek manuscripts prior to the fourteenth century (the Syriac fragment referred to by Nau is in fact excerpted from a thirteenth-century text), the question arises whether the text existed in Antiquity at all. In 1978, Lemay put forward the hypothesis that the text was forged *c.* 920 by Abū Jaʿfar Aḥmad ibn Yūsuf ibn Ibrāhīm ibn al-Dāya, who is also the most famous commentator of the work (see C.3.1), and that the resulting fabrication became the source of the text in all languages, including in Greek, where Abū Jaʿfar's commentary was omitted so as to retain only the text attributed to Ptolemy. Lemay's hypothesis, however, has been challenged (see in particular Martorello/Bezza, 12–20) and the question whether the text was originally written in Greek or in Arabic is still an open one. Of the ten identified Latin translations of the *Καρπός*/*Kitāb al-Thamara*, six were made from the Arabic in the Middle Ages (B.1.1–6, five of which include Abū Jaʿfar's commentary = C.3.1.1–5) and four from the Greek in the Renaissance (B.1.7–10).

Bibl. Steinschneider 1893, II, 527–31; F. Boll, 'Studien über Claudius Ptolemäus. Ein Beitrag zur Geschichte der griechischen Philosophie und Astrologie', *Jahrbücher für Classische Philologie*, Suppl. 21 (1894), 49–244: 180–81; F. Nau, 'Un fragment syriaque de l'ouvrage astrologique de Claude Ptolémée intitulé le Livre du fruit', *Revue de l'Orient Chrétien* 28 (1931–1932), 197–202; Gundel/Gundel 1966, 211; M. Ullmann, *Die Natur- und Geheimwissenschaften im Islam*, Leiden, 1972, 283–84 and 327–28; Lemay 1978; McCarthy 1979; Sezgin 1974–1979, VII, 44–46 (no. 2) and 157; P. Kunitzsch, review of Sezgin 1974–1979, VII, *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 132 (1982), 174–79: 175–77; D. Pingree, review of Sezgin 1974–1979, VII, *Journal of the American Philosophical Society* 102 (1982), 559–61: 560 (no. 8); Lemay 1995–1996, I, 115–16 and 269; IV, 15–19, 90–92 and 173–75; VII, 15–19; 58–62 and 105–06; Lemay 1997, 150–59 and 164–71; R. Lemay, 'Des sages antiques aux astrologues médiévaux. Falsafa et astrologie', in *La science des cieux. Sages, mages, astrologues*, ed. R. Gyselen, Bures-sur-Yvette, 1999, 167–82: 172–80; Lemay 1999; Rinaldi 2002, 47–60 and 68–72; F. Martorello, G. Bezza, *Aḥmad ibn Yūsuf ibn al-Dāya: Commento al Centiloquio tolemaico*, Milano-Udine, 2013; O. Pompeo Faracovi, 'Una nuova edizione del *Centiloquio*', *BC* 20 (2014), 641–44; Calcagno 2021, 6–16; M. Rinaldi, *El libro delle cento parole di Ptholommeo. Volgarizzamento inedito del* Centiloquium *pseudo-tolemaico*, Roma, 2021, XIII–XVI. **In Latin**

(see also B.1.1–10): R. Lemay, 'Le *Centiloquium* du pseudo-Ptolémée (Abû Ja'far Ahmad ibn Yûsuf) chez quelques grands scolastiques du XIII[e] siècle: Robert Grosseteste — Albert le Grand — Guillaume d'Auvergne', *Scientiarum Historia* 29 (2003), 133–46; O. Pompeo Faracovi, 'The Return to Ptolemy', in *A Companion to Astrology in the Renaissance*, ed. B. Dooley, Leiden, 2014, 87–98; D. Juste, 'The Impact of Arabic Sources on European Astrology: Some Facts and Numbers', *Micrologus* 24 (2016), 173–94: 185 (no. 2); N. Weill-Parot, 'Puissance des visages célestes et des visages terrestres: Marsile Ficin et l'exploitation du mot *vultus*', in *L'éloquence du visage entre Orient et Occident*, ed. O. Voskoboynikov, Firenze, 2022, 255–69.

Modern ed. The Greek text was first published in 1535 by Joachim Camerarius (see ed. Nürnberg, Johannes Petreius, 1535). Critical edition of the Greek text by E. Boer, *Claudii Ptolemaei opera quae exstant omnia*, III.2: *ΚΑΡΠΟΣ. Pseudo-Ptolemaei Fructus sive Centiloquium*, Leipzig, 1952 (revised edition Leipzig, 1961). English translation of Boer's edition by J. H. Holden, *Five Medieval Astrologers*, Tempe, 2008, 71–87. Critical edition of the Arabic text and Abū Ja'far's commentary, together with an Italian translation, by Martorello/Bezza. There is also an unpublished critical edition of the Arabic text, with Abū Ja'far's commentary, by Lemay 1999.

B.1.1. *Centiloquium*, tr. Adelard of Bath

Translated from the Arabic by Adelard of Bath, probably around 1120. This translation does not include Abū Ja'far Aḥmad ibn Yūsuf's commentary and breaks off after v. 39 in all copies.

Note Besides the two manuscripts listed below, this version survives in about 20 copies as part of the so-called 'threefold version' described under Plato of Tivoli's translation of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* (see C.3.1.1, Note 3). *Verba* 1–25 also occur together with the 'Mundanorum' version of Abuiafar's commentary (C.3.1.3) in MS Leipzig, UB, 1463, and the first *verbum* only, also with 'Mundanorum', in MS Berlin, SBPK, lat. fol. 246.

Text '(London, BL, Sloane 2030) **[1]** Doctrina stellarum ex te et illis. Nec est docti in ea ut prophere (!) formam actus individualis sicut nec sententis ut capiat formam sensiti individualem... **[2]** Cum quesierit electionem meliorem, non est inter eum et connaturalem diversitas. **[3]** Connaturalis in re est cui invenitur dux huius rei potens in nativitate eius. **[4]** Anima connaturalis iudicabit super elthenias, id est secundas stellarum... (87v) **[5]** V. Iam potest astrologus supra removendos multos actus stellarum... **[6]** VI. Proderit autem cum electione cum fuerit hora addens supra incrementum... **[7]** Non accedat ad iudicium supra complexiones stellarum... **[8]** VIII. Anima sapiens actum stellarum adiuvat <sicut> seminator potens... **[9]** Forme que in mundo composito sunt formis circularibus obediunt... **[10]** Subserviant tibi infelicitates in electionibus, sicut quod facit medicus peritus cum quantitate sufficienti — **[39]** Mala habitudo undecimi et domini eius in statutione regis, dux supra eventus principis et censum eius infortunii. Similiterque mala habitude secondi dux supra parvitatem lucri agricolarum suorum cum eo.'

Bibl. Lemay 1978, 101; McCarthy 1979; Burnett 1987, 166 (no. 1); Lemay 1999, I, 203–13; Rinaldi 2002, 62–63; C. Burnett, 'The Arabic Hermes in the Works of Adelard

of Bath', in *Hermetism from Late Antiquity to Humanism. La tradizione ermetica dal mondo tardo-antico all'umanesimo (Atti del Convegno internazionale di studi, Napoli, 20–24 novembre 2001)*, eds P. Lucentini, I. Parri, V. Perrone Compagni, Turnhout, 2003, 369–84: 370–72; Boudet 2014, 51; Boudet 2014a, 386; Boudet 2017, 607; Boudet 2020, 284 and *passim*; Calcagno 2021, 17; J.-P. Boudet, 'La traduction incomplete du *Centiloquium* du pseudo-Ptolémée par Adélard de Bath', *Cahiers de Recherches Médiévales et Humanistes* 47 (2024), 405–26.

Modern ed. Critical edition by Boudet, 'La traduction incomplete'.

EDS *---*

MSS London, BL, Sloane 2030, s. XII, f. 87r–87v
Lyon, BM, 328, s. XIV, f. 69r–70r

B.1.2. *Centiloquium*, tr. Plato of Tivoli

This translation is part of Plato of Tivoli's translation of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium*. See C.3.1.1.

B.1.3. *Centiloquium*, tr. Hugo Sanctelliensis

This translation is part of Hugo Sanctelliensis's translation of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium*. See C.3.1.2.

B.1.4. *Centiloquium*, 'Mundanorum' version

This translation is part of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* in the 'Mundanorum' version. See C.3.1.3.

B.1.5. *Centiloquium*, 'Iam premisi' version

This translation is part of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* in the 'Iam premisi' version. See C.3.1.4.

B.1.6. *Centiloquium*, tr. before c. 1250

This translation is part of Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* in the anonymous translation made before *c.* 1250. See C.3.1.5.

B.1.7. *Centiloquium*, tr. George of Trebizond

This translation is part of George of Trebizond's *Commentarii et expositiones in aphorismis Libri fructus Ptolomei*. See C.3.11.

B.1.8. *Centiloquium*, tr. after 1460

A partial (v. 1–51) interlinear translation from the Greek found in a manuscript almost entirely copied by Georgios Meidiates, a scribe active between 1460 and 1481.

Text '(ed. Rinaldi) **[PREFACE]** Exponentes, o Sire, operationes stellarum in composito operantes mundo, multum utiles existentes cognitione... **[1]** A te et a sciencia, non enim est possibile scientem particulares formas rerum enuntiare, quemadmodum neque sensus accipit particularem formam sensibilis, sed generalem... **[2]** Quando queret melius consultans, non est medium eius... **[3]** Ad aliquam rem aptus, habebit omnino... **[4]** Apta anima ad cognitionem plus consequitur veritatis... **[5]** Potest sciens multas avertere operationes stellarum... **[6]** Tunc prodest electio dierum... **[7]** Non potest aliquis comprehendere mixturas stellarum... **[8]** Sapiens anima cooperatur celesti operationi... **[9]** In generatione et corruptione species patiuntur a celestibus speciebus... **[10]** Utar in epilogis dierum et temporum — **[51]** Hic est in tempore generationis Luna, illud signum in seminacione fac ascendens; et ibi in seminacione accidet, illud in partu fac ascendens, vel huius diametrum.'

Bibl. Rinaldi 2002, 261–68; Calcagno 2021, 20.

Modern ed. Rinaldi, 263–68.

EDS ---

MSS Paris, BnF, gr. 2180, s. XV, f. 91r–92r

B.1.9. *Centiloquium*, tr. Giovanni Pontano

This translation is part of Giovanni Pontano's *Liber commentationum in Centum sententiis Ptolemaei*. See C.3.16.

B.1.10. *Centiloquium*, tr. Pancratius Florentinus

Translated from the Greek by Pancratius Florentinus. The translator's name is not given, but in both manuscripts, this text immediately follows the translation of the *Tetrabiblos* by him (see A.2.13). Pancratius made use of Giovanni Pontano's translation (B.1.9), as is obvious in the first aphorism and in other places, but his translation seems to be for the most part original.

Text '(Florence, BML, Redi 12) Claudii Ptolemei liber qui dicitur fructus. [PREFACE] Cum exposuerimus, o Syre, effectrices astrorum vires que in hoc composito efficiunt mundo praecognitione... [**1**] 1. Abste et a scientia. Fieri enim nequit, ut qui sciens est, particulares reum formas pronuntiet, sicut neque (possibile est) ut sensus particularem rei sensi<bi>lis formam, sed generalem recipiat... [**2**] 2. Quando qui cupit tenetur desiderio rei melioris (104r) non erit inter illud et rei formas discrimen aliquod. [**3**] 3. Qui alicui rei idoneus est... [**4**] 4. Anima cognitioni addicta plus veritatis... [**5**] 5. Qui scientia pollet potest... [**6**] 6. Tunc dierum et horoscoporum electio... [**7**] 7. Non potest quispiam stellarum mixtiones comprehendere... [**8**] 8. Sapiens animus coelestis auxiliae operationi... [**9**] 9. In generatione et corruptione species

a coelestibus formis... [**10**] 10. In dierum et horarum electionibus maleficis utere... [**51**] 51. Ubi est Luna tempore nativitatis, illud signum in conceptu... [**60**] 60. In infirmis utiles dies... [**99**] 99. Traiectiones aeris siccitatem denotant — **[100]** 100. Cuiuslibet civitatis Martem meridianum habentis reges gladio de medio ut plurimum tollentur. Finis.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Florence, BML, Redi 12, s. XVII, f. 103v–111r
Vatican, BAV, Cappon. 255, s. XVII, pp. 223–237

B.2. *Liber de compositione universalis astrolabii*

A text on the construction of the universal astrolabe in six chapters. According to the colophon, it was translated from the Arabic in London in 'era 1185', i.e. in AD 1147, and three of the four complete manuscripts name Robert of Chester ('Robertus Cestrensis/Castrensis') as the translator (MSS Cambridge, GCC, 35; Fermo, BC, 85; and Vienna, ÖNB, 5311). The text is unambiguously attributed to Ptolemy not only in the colophon, but also in the body of the text, where the author refers to the *Almagest* as his own work ('librum meum Almagesti perlegat', ch. 6, Oxford, BL, Digby 40, f. 7r). Kunitzsch, 490, argued that this work is not a translation, but a Latin compilation that borrows certain technical terms from previous works on the astrolabe. The possibility remains, however, that the translator was familiar with earlier Latin works on the subject. Robert of Chester ('Robertus Cestrensis') is also credited with a text on the use of the astrolabe in 35 chapters (*De officio astrolabii*) extant in MSS Milan, BA, H. 109 sup., s. XV, f. 9v–17v, and →Oxford, BL, Canon. Misc. 61, f. 12r–22v, on which see Kunitzsch, 492 (also 506), and Nothaft, 194.

Note 1 The text once occurred in MS →Berlin, SBPK, lat. qu. 510 (s. XIII[1]) as shown by the medieval table of contents of this manuscript: 'De compositione astrolabii universalis Ptholomei' (see MS entry under Note).

Note 2 For further texts on the astrolabe attributed to Ptolemy, see R.4–5, R.8, R.13–14, R. 19, R.23, R.31, R.52.

Text '(Oxford, BL, Digby 40) In nomine domini pii et misericordis incipit liber de compositione universalis astrolabii. [TRANSLATOR'S PREFACE] Ptolomeus igitur, Mercurii incedens vestigiis in libro suo qui vocatur Almagesti, de motu sic ait: Ait enim omnis motus aut de puncto aut ad punctum — (1v) a docto artifice perpenditur. Explicit prologus. Incipit liber. [TEXT] Sit igitur mater tabula, astrolabii videlicet generalis ex eramine rotundissime composita — cum una eademque utrique conveniat ad plenum dicetur. Explicit liber Ptolomei de compositione

astrolabii universalis quem scilicet <Robertus Cestrensis> in civitate Londonie ex Arabico in Latinum transtulit, era millesima centesima LXXXV.'

Bibl. M. Steinschneider, 'Zum Speculum astronomicum des Albertus Magnus, über die darin angeführten Schriftsteller und Schriften', *Zeitschrift für Mathematik und Physik* 16 (1871), 357–96: 393; Haskins 1927, 122; Carmody 1956, 19 (no. 19, also no. 17); North 1976, III, 162–64; P. Kunitzsch, *Glossar der arabischen Fachausdrücke in der mittelalterlichen europäischen Astrolabliteratur*, Göttingen, 1983 (*Nachrichten der Akademie der Wissenschaften in Göttingen*, I: *Philologisch-Historische Klasse* 11 (1982), 459–571), 489–91; C. P. E. Nothaft, *Graeco-Arabic Astronomy for Twelfth-Century Latin Readers.* Ptolomeus et multi sapientum *(Abraham Ibn Ezra) – Robert of Chester,* Liber canonum*, pt. II*, Leiden-Boston, 2023, 193–94. For works on the astrolabe attributed to Ptolemy in Arabic (and Hebrew), see Steinschneider 1893, II, 536–38; Sezgin 1974–1979, V, 171–74 (nos 2–3), and VI, 95 (no. IV); and H. Y. Sheynin, 'Claudius Ptolemy? Pseudo-Ptolemy? The Main Source of Moses Almosnimo's *Treatise on Astrolabe*', *JHA* 46 (2015), 343–50.

Modern ed. ---

EDS ---

MSS Cambridge, GCC, 35 (141), s. XV, f. 137va–139ra
Fermo, BC, 85, s. XIII, f. 95vb–99ra
Oxford, BL, Digby 40, s. XII–XIII, f. 1r–8r
Oxford, BL, Selden supra 76, s. XIII, f. 39v–40v (preface only)
Vienna, ÖNB, 5311, s. XIV, f. 33ra–34vb

B.3. *Iudicia*

A text in two parts (two books in Aristotle's version), comprising (1) a general introduction to astrology, and (2) a collection of *iudicia* consisting mainly of interrogations based on various celestial configurations, in particular the position of the ruler of the ascendant and other planets in the houses. This text exists in two versions, one attributed to Ptolemy and the other to Aristotle, both of which seem to derive from a common, lost source which was probably translated or adapted from Arabic (both versions include Arabic words). No Arabic counterpart is known, but a Hebrew version of the second part has been recently identified as *Kelal ha-She'elot le-divrei Talmai* ('All the Questions According to Ptolemy') by Shlomo Sela, who showed that this Hebrew version was translated from the Arabic. Ptolemy's *Iudicia* was used by Raymond of Marseille in his *Liber iudiciorum* (1141) and gave rise to an anonymous commentary which can be dated to *c.* 1138 (C.4.6). The text — or the common source — may be as old as the tenth century for it shares characteristics in style and content, including several identical chapters, with the *Alchandreana*. The text is said to have been addressed by Ptolemy to his son 'Ariston' or 'Eriston' (cf. 'fili mi Eriston' in the fifth chapter, MS London, BL, Harley 5402, f. 1r; the name 'Ariston' is

given in the title of several manuscripts). By contrast, Aristotle's version is said to have been addressed to king 'Alco(n)'. The manuscripts listed below are those of Ptolemy's version only. Aristotle's version is extant in some 15 manuscripts, five of which bear attribution not to Aristotle, but to Ptolemy: Catania, BU, 87, s. XV, f. 89ra–101va ('Incipit Ptholomei liber'); Madrid, BN, 10009, s. XIII, f. 109ra–117vb ('Incipit Ptholomei liber... Explicit hic liber qui dicitur Tholomei'); Venice, BNM, lat. VIII.44 (3715), s. XV, f. 31r–45v ('Istam doctrinam dedit Ptholomeus filio suo...'); Vienna, ÖNB, 2311, s. XIII, f. 97ra–104rb ('Incipit Ptolomey liber'); Wolfenbüttel, HAB, 51.9 Aug. 4º (3549), s. XIII, f. 69r–91r ('Hunc tractatum edidit Ptolomeus unus de regibus Egipti, nec est idem Ptolomeus qui edidit Almagestum vel Quadripartitum sed diversus', added note f. 69r). Likewise, two manuscripts of Ptolemy's version ascribe the text to Aristotle: Erfurt, UFB, Dep. Erf. CA 4º 374 ('Sequitur liber Aristotelis') and London, BL, Cotton Appendix VI ('Liber iste est Aristotelis in scientia ipsius astronomie... Hic terminatur astronomia Aristotelis cum expositione eius').

Note 1 Two manuscripts (Bernkastel-Kues, CSB, 209 and Budapest, MTAK, K 440) have a reworking of the text, which is possibly the work of Bartholomew of Parma (*fl.* 1286–1297). On this reworking, see C. Burnett, '*Partim de suo et partim de alieno:* Bartholomew of Parma, the Astrological Texts in MS Bernkastel-Kues, Hospitalsbibliothek 209, and Michael Scot', in *Seventh Centenary of the Teaching of Astronomy in Bologna, 1297–1997*, eds P. Battistini, F. Bònoli et al., Bologna, 2001, 37–76: 51–57.

Note 2 Besides the manuscripts listed below, a copy of the *Iudicia* may have existed in MSS ¬Chantilly, MC, 322, and ¬Paris, BnF, lat. 7320.

Text '(London, BL, Harley 5402) Incipit... [title faded]. Signorum alia sunt masculini generis, alia feminini, feminini ut Taurus, Cancer, Virgo — scias te ipsam numquam habiturum. Explicit.'

Bibl. Carmody 1956, 17 (no. 7a-b) and 20 (no. 31); C. Burnett, 'What is the *Experimentarius* of Bernardus Silvestris? A Preliminary Survey of the Material', *AHDLMA* 44 (1977), 79–125: 81–84 (reprinted in Burnett 1996, XVII); C. B. Schmitt, D. Knox, *Pseudo-Aristoteles Latinus. A Guide to Latin Works Falsely Attributed to Aristotle Before 1500*, London, 1985, 35–37 (nos 49–51); Juste 2007, 273–75; C. Burnett, 'Aristotle as an Authority on Judicial Astrology', in *Florilegium Mediaevale. Études offertes à Jacqueline Hamesse à l'occasion de son éméritat*, eds J. Meirinhos, O. Weijers, Louvain-la-Neuve, 2009, 41–62; D. Juste, 'Les textes astrologiques latins attribués à Aristote', *Micrologus* 21 (2013), 145–64: 150–53; S. Sela, 'What is *Tractatus particulares*, a Four-Part Work Assigned to Abraham Ibn Ezra? A Study of Its Sources and General Features', *AHDLMA* 86 (2019), 141–95: 155–60; S. Sela, *Abraham Ibn Ezra Latinus on Elections and Interrogations. A Parallel Latin-English Critical Edition of* Liber Electionum, Liber Interrogationum*, and* Tractatus Particulares, Leiden-Boston, 2020, 64–66 and 505–09.

Modern ed. One chapter (on the querent's secret thoughts) has been edited in its Hebrew and Latin versions, together with English translations, by Sela, *Abraham Ibn Ezra*, 505–09.

EDS Venice, Petrus Liechtenstein, 1509, sig. 2ra–14rb

MSS Bernkastel-Kues, CSB, 209, s. XIV, f. 1r–26r (reworking)
Bernkastel-Kues, CSB, 212, s. XV, f. 323ra–326ra (incomplete)
Budapest, MTAK, K 440 (2º 10), s. XIV, f. 1ra–19ra (reworking)
Cambridge, PC, 204, s. XV, f. 71rb–73rb (excerpts)
Erfurt, UFB, Dep. Erf. CA 2º 395, s. XIV, f. 201ra–206ra (incomplete)
Erfurt, UFB, Dep. Erf. CA 4º 374, s. XIV, f. 133r–134v (excerpts)
Florence, BML, Ashburnham 1733, s. XIII, f. 21va–35va
Florence, BML, San Marco 194, s. XII–XIII, f. 86va–94vb
London, BL, Additional 10775, s. XVI, f. 298r–329r
London, BL, Cotton Appendix VI, s. XIII–XIV, f. 8rb–20va
London, BL, Harley 2269, s. XVI, f. 98r–106v and 109r–114r
London, BL, Harley 5402, s. XII, f. 1r–15r
London, BL, Sloane 3554, s. XV, f. 3r–8r (beginning only)
Madrid, BN, 10053, s. XIII, f. 27rb–34ra
Munich, BSB, Clm 18927, s. XII, f. 76v–77v, 92v–93v, 97r–98r and 120v–129r
Oxford, BL, Ashmole 345, s. XIV, f. 76v–80r (excerpts)
Oxford, BL, Canon. Misc. 71, s. XIII–XIV, f. 46ra–46vb (excerpts)
Oxford, BL, Rawlinson B.167, s. XIV, f. 209v–230r (incomplete)
Paris, BnF, lat. 16208, s. XII, f. 59rb–65ra
Pommersfelden, GSB, 66 (2640), s. XIII, f. 105r (excerpt)
St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 173ra–179rb
Vatican, BAV, Chigi E.VI.202, s. XIV, f. 37r–41r (excerpts)
Vatican, BAV, Pal. lat. 1408, s. XIV, f. 17v–34v
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 50ra–54rb
Vienna, ÖNB, 3124, s. XIV–XV, f. 1r–11r

B.4. *De cometis*

A brief description of nine types of comets and their influence on earthly events. This text ultimately derives from Hephaestio of Thebes's *Apotelesmatica* I.24.4–12 and has been found in various Arabic versions, with attribution to Ptolemy, by Emanuele Rovati. In the Latin tradition, this text mainly occurs as one of the two additional chapters (with B.5) often found together with Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1) and in the 'Mundanorum' version (C.3.1.3), either at the beginning or at the end. It is related to v. 99–100 of the *Centiloquium*, which deal with comets, but its origin and exact relationship to the *Centiloquium* remain to be investigated. The text exists in three versions: (1) the standard version ('Dixit Ptholomeus quod stelle cum caudis sunt 9...'), generally found together with the *Centiloquium* in Plato of Tivoli's translation; (2) an expanded version of the former ('Ptholomeus

in hoc libro tricas et tricarum nomina posuit...'), generally found together with the *Centiloquium* in the 'Mundanorum' version; (3) a version attributed to Robert Grosseteste and consisting of the expanded version followed by the last part of Grosseteste's own *De cometis* (ed. Panti, 326–28, lines 112–45). The latter version occurs in MSS Erfurt, UFB, Dep. Erf. CA 4º 361; Florence, BM, C 163; and Munich, BSB, Clm 588. The text is attributed to Grosseteste in all three manuscripts and occurs among Grosseteste's works in the Florence MS. Thomson saw no reasons to doubt the authenticity, but Panti, 249–51, argued against it, among others because the three extant copies are late and because the first part is not by Grosseteste. The *De cometis* was commented upon by Conrad Heingarter (C.4.7) and is part of commentaries C.3.6 and C.3.9 (see MS Cracow, BJ, 1857, pp. 126–127).

Note The manuscripts listed below with an asterisk (*) are those in which the text occurs independently from Abuiafar's commentary on the *Centiloquium*.

Standard version '(ed. Boudet) Dixit Ptholomeus quod stelle cum caudis sunt 9, quarum prima est Veru, secunda Tenaculum, tercia Pertica — significabit mortalitatem multam et decollationem.'

Expanded version '(ed. Boudet) Ptholomeus in hoc loco tricas et tricarum nomina posuit signa communium effectuum... Stelle cum caudis sunt 9 que mundum movent — quicquid ipsa significabit in regibus et divitibus apparebit.'

Version attributed to Grosseteste '(Erfurt, UFB, Dep. Erf. CA 4º 361) Incipit tractatus domini Ruberti Lynconiensis de cometis. Ptholomeus in hoc libro tricas et tricarum nomina ponit... Ptolomeus dixit quod stelle cum caudis sunt 9 — in regibus et divitibus apparebit. Et hec de cometis breviter discernimus. Trica est ignis sublimatus — qualitas rei future cuius est signum. Explicit tractatus domini Lynconiensis de cometis.'

Bibl. Carmody 1956, 16–17 (no. 3d); Lemay 1978, 102; L. A. Shore, *Three Treatises on Comets in Middle French: A Study in the Development of a Vernacular Scientific Tradition*, PhD dissertation, University of Toronto, 1984, 29–31; Lemay 1995–1996, IV, 143–44; Lemay 1997, 158–59; Lemay 1999, I, 334–35 and *passim*; Panti 2001, 153–56 and 245–52; J.-P. Boudet, 'Les comètes dans le *Centiloquium* et le *De cometis* du pseudo-Ptolémée', *Micrologus* 24 (2016), 195–226: 210–20. For the version attributed to Grosseteste, see also S. H. Thomson, 'The Text of Grosseteste's De cometis', *Isis* 19 (1933), 19–25: 19; and S. H. Thomson, *The Writings of Robert Grosseteste, Bishop of Lincoln (1235–1253)*, Cambridge, 1940, 112 (no. 65). Hephaestio of Thebes's *Apotelesmatica* is edited by D. Pingree, *Hephaestionis Thebani Apotelesmaticorum libri III*, Leipzig, 1973–1974, 2 vols (see I, 74–76, for ch. I.24.4–12).

Modern ed. The standard version is edited by Shore, 190–92 (from Cambridge, UL, Kk 4.7, with a translation, 193–94); Lemay 1999, I, 334–35 (from Berlin, SBPK, Hamilton 557); and Boudet, 'Les comètes', 211–12 n. 68 (from several MSS, with a French translation, 210–11); the expanded version by Boudet, 'Les comètes', 218–20 (from several MSS); and the version attributed to Grosseteste by L. Baur, *Die philosophischen Werke des Robert Grosseteste, Bischofs von Lincoln*, Münster, 1912, 36–39, together with his edition of Grosseteste's *De cometis*

(from Erfurt, UFB, Dep. Erf. CA 4º 361 and Munich, BSB, Clm 588). A critical edition of the Arabic and Latin versions is in preparation by Emanuele Rovati.

EDS ---

MSS Avignon, BM, 1022 (341), s. XV, f. 224va–225va
*Basel, UB, F.III.8, s. XIV–XV, f. 57va–58ra
Basel, UB, F.III.25, s. XIII, f. 51rb
*Basel, UB, O.IV.4, s. XV, f. 41v
Berlin, SBPK, Hamilton 557, s. XIII–XIV, f. 14r–14v
Berlin, SBPK, lat. fol. 54 (964), s. XV, f. 207rb–207vb
*Bernkastel-Kues, CSB, 208, s. XIV, f. 150ra–150rb
Brussels, BR, 18678–18681, s. XIV, f. 1va
*Cambridge, UL, Ii 1.13 (1705), s. XIV, f. 200v
Cambridge, UL, Kk 4.7 (2022), s. XIV, f. 131va
Cambridge, UL, Mm 4.43 (2391), s. XIV, f. 249^{5}va–249^{6}vb
Cesena, BCM, Plut. S.XXVII.1, s. XV, f. 222r
Cracow, BJ, 601, s. XV, f. 44r
*Cracow, BJ, 805, s. XV, f. 360va–360vb
Cracow, BJ, 1859, s. XV, f. 204v–205r
Darmstadt, HLHB, 739, s. XIV, f. 181va–182ra
Dublin, TC, 397, s. XV, f. 40v–41r
*Dublin, TC, 399, s. XV, f. 159va–160rb
Dublin, TC, 441, s. XIV, f. 227r–227v
Erfurt, UFB, Dep. Erf. CA 2º 377, s. XIV, f. 62rb–62va
Erfurt, UFB, Dep. Erf. CA 2º 379, s. XIV, f. 99ra–99rb
Erfurt, UFB, Dep. Erf. CA 2º 380, s. XIV, f. 140r–140v
Erfurt, UFB, Dep. Erf. CA 2º 395, s. XIV, f. 120vb–121ra
*Erfurt, UFB, Dep. Erf. CA 4º 361, s. XIV, f. 126rb–126vb
Erfurt, UFB, Dep. Erf. CA 4º 376, s. XIV, f. 105ra–105va
Erfurt, UFB, Dep. Erf. CA 4º 377, s. XIV, f. 50r–50v
*Florence, BM, C 163, s. XIV–XV, f. 21rb–21vb
*Florence, BML, Ashburnham 203 (129/35), s. XVI, f. 46r–47v
Florence, BML, Ashburnham 1733, s. XIII, f. 72rb–72vb
*Florence, BML, Plut. 30.29, s. XIII, f. 63ra–63rb
Florence, BNC, Conv. Soppr. J.X.20 (San Marco 163), s. XIV–XV, f. 17v–18r
Florence, BNC, Magliabech. XX.22, s. XIV, f. 1rb–1vb
Florence, BR, 163, s. XIII, f. 25v–26r
Florence, BR, 885, s. XIII–XIV, f. 350v
Ghent, UB, 5 (416), s. XV, f. 21r–21v
Leiden, UB, Voss. lat. O.3, s. XV, f. 168v–169r
Leipzig, UB, 1472, s. XV, f. 52r–53v
Leipzig, UB, 1491, s. XV, f. 141va–141vb and 100r
London, BL, Arundel 268, s. XIV, f. 40ra–40rb
London, BL, Royal 12.E.XV, s. XIII–XIV, f. 132v–133v

*London, BL, Royal 12.E.XXV, s. XIII–XIV, f. 172r
London, BL, Sloane 2030, s. XIII, f. 29v–30r
London, UC, 16, s. XV, f. 3rb–3va
Madrid, BN, 10015, s. XIII, f. 19va–19vb
Melk, SB, 601, s. XV, f. 292v–293r
*Milan, BA, C. 299 inf., s. XV, f. 181va–182ra
Milan, BA, H. 44 inf., s. XIV, f. 142vb–143ra
Munich, BSB, Clm 228, s. XIV, f. 93r–93v
*Munich, BSB, Clm 275, s. XV, f. 13r
Munich, BSB, Clm 276, s. XIV, f. 86vb
*Munich, BSB, Clm 588, s. XIV, f. 112va–113rb
Munich, BSB, Clm 6748, s. XV, f. 33v–34r
*Munich, BSB, Clm 14684, s. XIV, f. 70v
Nürnberg, SB, Cent. VI 22, s. XIV, f. 171vb–172rb
Nürnberg, SB, Solg. Ms. 31.4º, s. XV, f. 38v–39v
*Oxford, BL, 4º D. 21 Jur., s. XVI, f. 11r–11v
Oxford, BL, Canon. Misc. 554, s. XV, f. 196v–197r
Oxford, BL, Digby 228, s. XIV, f. 12va
Oxford, CCC, 101, s. XV, f. 190ra–190rb
Paris, BnF, lat. 7282, s. XV, f. 13vb
Paris, BnF, lat. 7307, s. XIII, f. 1r–1v
*Paris, BnF, lat. 7316, s. XV, f. 145r
Paris, BnF, lat. 7408A, s. XIV, f. 98r–98v
Paris, BnF, n.a.l. 625, s. XIV, f. 46va–46vb
Salamanca, BU, 189, s. XIV, f. 21rb–21va
Salamanca, BU, 2051, s. XIII, f. 26ra–26va
*Segovia, ABC, B 349 (84), s. XV, f. 75v–76r
Seville, BCC, 7-7-30, s. XV, f. 145r–145v
*St Florian, SB, XI.619, s. XV, f. 82r
Vatican, BAV, Barb. lat. 328, s. XV, f. 195r–195v
Vatican, BAV, Borgh. 312, s. XIII–XIV, f. 24vb–25ra
Vatican, BAV, Pal. lat. 1340, s. XV, f. 258va–258vb
*Vatican, BAV, Pal. lat. 1376, s. XV, f. 185rb–185va
Vatican, BAV, Pal. lat. 1381, s. XIV, f. 242vb–243rb
Vatican, BAV, Pal. lat. 1390, s. XIV, f. 40r–40v
*Vatican, BAV, Pal. lat. 1408, s. XIV, f. 39v–40r
Vatican, BAV, Pal. lat. 1811, s. XIV, f. 64rb–64vb
Vatican, BAV, Vat. lat. 3096, s. XIV, f. 160r
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 60ra–60rb
Vatican, BAV, Vat. lat. 7616, s. XIII, f. 45vb–46rb
Venice, BNM, Fondo antico lat. Z. 344 (1878), s. XIII, f. 155rb–155vb
Venice, BNM, lat. VIII.16 (3382), s. XV, f. 104va–105ra
Verona, BC, CCXLIV (215), s. XIII, f. 16va–16vb
Vicenza, BCB, 208 (132), s. XV, f. 214r–215r

Vienna, ÖNB, 2388, s. XIII–XIV, f. 22r–22v
Vienna, ÖNB, 3105, s. XV, f. 37rb–37va
Vienna, ÖNB, 5209, s. XVI, f. 74v–76v
Vienna, ÖNB, 5239, s. XIV, f. 128rb–128va
*Vienna, ÖNB, 5414, s. XV, f. 136va–136vb
Vienna, ÖNB, 5417, s. XIV, f. 121rb–121va
Warsaw, BN, Rps 12634 II, s. XV, f. 19v
Wolfenbüttel, HAB, 444 Helmst. (479), s. XV, f. 200rb–200va

B.5. *Dixerunt Ptholomeus et Hermes quod locus Lune...*

A brief text on the rectification of nativities based on the idea that the position of the ascendant at the time of birth is identical with the position of the Moon at the time of conception, i.e. the so-called 'Trutina Hermetis'. This chapter is one of the two additional chapters (with B.4) often found together with Abuiafar Hamet filius Joseph's commentary on the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1) and in the 'Mundanorum' version (C.3.1.3), either at the beginning or at the end. It is related to v. 51 of the *Centiloquium*, which deals with the rectification of nativities, but its origin and exact relationship to the *Centiloquium* remain to be investigated. 'Abraam Bendeur' (or 'Isbendeut' among other spellings), quoted in the last paragraph, is perhaps Abraham Ibn Ezra (Sela). *Dixerunt Ptholomeus et Hermes quod locus Lune...* was commented upon by John Holbroke (C.4.8) and is part of commentaries C.3.5, C.3.9 (see MS Cracow, BJ, 1857, p. 128) and C.3.10.

Note 1 In several manuscripts, the text appears as a marginal gloss to v. 51 (Avignon, BM, 1022; Cambridge, UL, Kk 4.7; Vatican, BAV, Reg. lat. 1692) or as a chapter inserted into the body of the text after v. 51 (Dijon, BM, 1045; Ghent, UB, 5; Paris, BnF, lat. 16204).

Note 2 For further uses of this text, see MSS Erfurt, UFB, Dep. Erf. CA 4º 363, f. 92rb, and Paris, BnF, n.a.l. 1893, f. 125rb.

Note 3 The manuscripts listed below with an asterisk (*) are those in which the text occurs independently from Abuiafar's commentary on the *Centiloquium*.

Text '(Paris, BnF, lat. 7307) Dixerunt Ptholomeus et Hermes quod locus Lune in hora que infunditur sperma est gradus ascendentis nativitatis, et in loco qui erat gradus ascendentis in hora infusionis spermatis erit Luna in nativitate — et cum eo remanserit equa Lunam et ubi inveneris erit ascendens nativitatis. Dixit magister Abraamis Bendeur: Gradus infusionis spermatis non erit ex toto Lune locus in nativitate vel ipse erit oppositus. Et similiter erit de ascendente nati, id est non erit locus Lune in spermatis infusione vel ipse erit aut ei oppositus ex hoc expertus fuit multotiens.'

Bibl. Carmody 1956, 16–17 (no. 3d); L. Thorndike, 'Notes upon Some Medieval Latin Astronomical, Astrological and Mathematical Manuscripts at the Vatican', *Isis* 47 (1956), 391–404: 394–97; Thorndike 1957, 128–29; Lemay 1978, 102; Lemay 1995–1996, IV, 144; Lemay 1997, 155–57; Lemay 1999, I, 421–23; Boudet 2019, 173–77; S. Sela, 'Calculating Birth: Abraham Ibn Ezra's Role in the Creation and Diffusion of the *Trutina Hermetis*', in *Pregnancy and Childbirth in the Premodern World. European and Middle Eastern Cultures, from Late Antiquity to the Renaissance*, eds C. Gislon Dopfel, A. Foscati, C. Burnett, Turnhout, 2019, 79–106: 94–95.

Modern ed. Thorndike 1957, 129 (from MS Paris, BnF, lat. 7307); Boudet, 174–75 (from four MSS).

EDS ---

MSS Avignon, BM, 1022 (341), s. XV, f. 216v
Berlin, SBPK, Hamilton 557, s. XIII–XIV, f. 15r
*Brno, UK, A. 64, s. XV, f. 103v–104r
Brussels, BR, 18678–18681, s. XIV, f. 1vb
Cambridge, UL, Kk 4.7 (2022), s. XIV, f. 128ra–128rb
*Cracow, BJ, 618, s. XIV, f. 64va–64vb
Cracow, BJ, 1859, s. XV, f. 205r–205v
Darmstadt, HLHB, 739, s. XIV, f. 182ra–182rb
Dijon, BM, 1045 (116), s. XV, f. 133r
Dublin, TC, 397, s. XV, f. 39v–40r
*Dublin, TC, 399, s. XV, f. 160rb–160vb
Erfurt, UFB, Dep. Erf. CA 2º 379, s. XIV, f. 99rb
Erfurt, UFB, Dep. Erf. CA 2º 380, s. XIV, f. 140v
Erfurt, UFB, Dep. Erf. CA 4º 376, s. XIV, f. 105va–105vb
Erfurt, UFB, Dep. Erf. CA 4º 377, s. XIV, f. 50v
Florence, BML, Ashburnham 1733, s. XIII, f. 72vb–73rb
Florence, BNC, Magliabech. XX.22, s. XIV, f. 1ra–1rb
Florence, BR, 163, s. XIII, f. 26v
Florence, BR, 885, s. XIII–XIV, f. 350v
Ghent, UB, 5 (416), s. XV, f. 12r
Leiden, UB, Voss. lat. O.3, s. XV, f. 169r–169v
Leipzig, UB, 1491, s. XV, f. 100r
*London, BL, Additional 10775, s. XVI, f. 70r–71r
London, BL, Arundel 88, s. XV–XVI, f. 55r
London, BL, Arundel 268, s. XIV, f. 40rb–40va
London, BL, Royal 12.E.XV, s. XIII–XIV, f. 133v–135r
*London, BL, Sloane 312, s. XV, f. 38v–39r
*London, BL, Sloane 332, s. XV, f. 19v
*London, BL, Sloane 702, s. XV, f. 10r
London, BL, Sloane 2030, s. XIII, f. 20v–21r
London, UC, 16, s. XV, f. 3ra–3rb
Madrid, BN, 10015, s. XIII, f. 19va
*Melk, SB, 601, s. XV, f. 293r

Munich, BSB, Clm 228, s. XIV, f. 93v
Oxford, BL, Canon. Misc. 554, s. XV, f. 196r–196v
Oxford, BL, Digby 228, s. XIV, f. 12va
Oxford, CCC, 101, s. XV, f. 190va–191ra
Paris, BnF, lat. 7307, s. XIII, f. 1r
*Paris, BnF, lat. 7316, s. XV, f. 145r–145v
*Paris, BnF, lat. 7413-II, s. XIII, f. 30rb–30vb
*Paris, BnF, lat. 7443, s. XV, f. 138v–139r
Paris, BnF, lat. 16204, s. XIII, pp. 569b–570a
Salamanca, BU, 189, s. XIV, f. 21ra–21rb
Salamanca, BU, 2051, s. XIII, f. 26ra
Seville, BCC, 7-7-30, s. XV, f. 144v–145r
Vatican, BAV, Reg. lat. 1692, s. XIII–XIV, f. 280v
*Vatican, BAV, Vat. lat. 1112, s. XIV, f. 46ra
Vatican, BAV, Vat. lat. 3096, s. XIV, f. 160r–160v
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 60ra
Vatican, BAV, Vat. lat. 7616, s. XIII, f. 45va–45vb
Venice, BNM, Fondo antico lat. Z. 344 (1878), s. XIII, f. 155ra–155rb
Venice, BNM, lat. VIII.16 (3382), s. XV, f. 104va
Verona, BC, CCXLIV (215), s. XIII, f. 16rb–16va
Vicenza, BCB, 208 (132), s. XV, f. 213r–214r
Vienna, ÖNB, 2388, s. XIII–XIV, f. 22v
Vienna, ÖNB, 3105, s. XV, f. 37ra–37rb
Vienna, ÖNB, 5209, s. XVI, f. 72v–74v
Vienna, ÖNB, 5239, s. XIV, f. 128ra–128rb
*Vienna, ÖNB, 5251, s. XV, f. 211v
*Vienna, ÖNB, 5414, s. XV, f. 136vb–137rb
Warsaw, BN, Rps 12634 II, s. XV, f. 19v–20r
*Wolfenbüttel, HAB, 65 Aug. 2º (2637), s. XV, f. 229v

B.6. *Liber proiectionis radiorum stellarum*

This short text on the projection of rays is attributed to Ptolemy in two manuscripts: 'Liber proiectionis radiorum Ptholomei' (Madrid, BN, 10063) and 'Capitulum proiectionis radiorum secundum Ptholomeum' (Vienna, ÖNB, 3124), while one manuscript makes it the last chapter of Alcabitius's *Introductorius* (Oxford, BL, Savile 17). In the other copies the text is anonymous, but the attribution to Ptolemy is however implicit, for in most manuscripts, including the earliest one (Pommersfelden, GSB, 60, copied *c.* 1200), the text follows the *Quadripartitum* in the translation of Plato of Tivoli (A.2.1) without a break, and in five instances (Munich, BSB, Clm 3857; Paris, BnF, lat. 7302; Vatican, BAV, Barb. lat. 328; ed. 1493; ed. 1519), it is even considered part of the *Quadripartitum*, as is also the case in commentaries C.2.3–4. The connection between the projection

of rays and Ptolemy was already clear in Albumasar's *Introductorium maius* VII.7, whose title reads 'Differentia VII in proiectione radiorum planetarum secundum opus Tholomei' in John of Seville's translation (ed. Lemay 1995–1996, V, 308; Arabic text in K. Yamamoto, C. Burnett, *The Great Introduction to Astrology by Abū Maʿšar*, Leiden, 2019, I, 795). Contrary to Lemay's opinion (ibid., IV, 56), however, the present text does not derive from Albumasar's chapter.

Note Besides the manuscripts listed below, the text is also extant as part of commentaries C.2.3–4.

Text '(Vatican, BAV, Reg. lat. 1285) Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradum ascendentis — erit locus radiationis equate.'

Bibl. Carmody 1956, 21 (nos 43–44).

Modern ed. ---

EDS Venice, Erhardus Ratdolt, 1484, sig. $f_6$rb–$f_6$va
Venice, Bonetus Locatellus, 1493, sig. 104vb–105ra
Venice, Octavianus Scotus, 1519, sig. 94vb–95ra

MSS Berlin, SBPK, lat. qu. 526, s. XIII–XIV, f. 37r–37v
Cambrai, BM, 955 (853), s. XIII, f. 128va–129rvb
Cambridge, TC, O.3.13 (1185), s. XVI, f. 120v
Cambridge, UL, Kk 1.1 (1935), s. XIII, f. 96rb–96va
Cesena, BCM, Plut. S.XXVII.3, s. XIII, f. 62va
Erfurt, UFB, Dep. Erf. CA 4º 374, s. XIV, f. 159r–159v
Florence, BNC, Conv. Soppr. J.III.28 (San Marco 180), s. XIV, f. 19ra
Madrid, BN, 10015, s. XIII, f. 15rb
Madrid, BN, 10015, s. XIII, f. 18vb–19ra
Madrid, BN, 10063, s. XIII, f. 22rb
Munich, BSB, Clm 3857, s. XIII, f. 43va–43vb
Oxford, BL, Savile 17, s. XIV, f. 94r–94v
Paris, BnF, lat. 7302, s. XV, f. 102ra–102vb
Paris, BnF, n.a.l. 693, s. XIV, f. 89r–89v
Pommersfelden, GSB, 60 (2633), s. XII–XIII, f. 138r
Rome, BV, F 37, s. XV–XVI, f. 63v
Vatican, BAV, Barb. lat. 328, s. XV, f. 70r–70v
Vatican, BAV, Ott. lat. 1552, s. XV, f. 74r–74v
Vatican, BAV, Pal. lat. 1420, s. XIII, f. 34v–35r
Vatican, BAV, Reg. lat. 1285, s. XIII, f. 138rb–138va
Vatican, BAV, Vat. lat. 4087, s. XV, f. 31r–31v
Vatican, BAV, Vat. lat. 7616, s. XIII, f. 44vb–45ra
Vienna, ÖNB, 3124, s. XIV–XV, f. 152r
Vienna, ÖNB, 5251, s. XV, f. 146v
† Wroclaw, BU, R 172, s. XIV, f. 46r–46v

B.7. *De occultatis*

A short text on interpreting a horoscope of interrogation for finding hidden objects. This text is in fact identical with the seventh and last chapter of Messahallah's *Liber interpretationum*, a popular text on interrogations which existed in Latin by the middle of the twelfth century (cf. →Oxford, BL, Digby 51, f. 134rb–136ra). The text also occurs, without changes, as chapter 11 of Messahallah's *Liber de intentionibus secretorum astronomie*, a probable re-elaboration of the former. Messahallah's *Liber interpretationum* is extant in over 50 manuscripts and the chapter under consideration is found separately in the three manuscripts listed below. Whether part of Messahallah's works or isolated, this text is consistently attributed to Ptolemy ('Dixit Ptolomeus...').

Text '(Parma, BP, 718–720) Dixit Pthol<omeu>s: Si aspexerit significator ascendens erit genus rei occulte — sapientes astrologorum a ceteris minus doctis in hac arte.'

Bibl. On Messahallah's *Liber interpretationum*, see D. Juste, 'The Impact of Arabic Sources on European Astrology: Some Facts and Numbers', *Micrologus* 24 (2016), 173–94: 190 (no. 26).

Modern ed. No modern edition. Messahallah's *Liber interpretationum* has been translated into English by B. N. Dykes, *Works of Sahl and Māshā'allāh*, Minneapolis, 2008 (reprinted 2010), 425–36.

EDS ---

MSS Berlin, SBPK, lat. fol. 54 (964), s. XV, f. 215va–215vb
Parma, BP, 718–720, s. XIII, f. 274r–274v
Vatican, BAV, Pal. lat. 1446, s. XIV, f. 111r–111v

B.8. *Liber de iudiciis partium*

This text provides the interpretation of the position of the part of fortune and of the parts of the twelve houses in each of the twelve houses. As already noted by Pingree, this is a chapter excerpted from Messahallah's *De nativitatibus* (Māshā'allāh's *Kitāb al-mawālīd al-kabīr*, 'Great Book of Nativities'), translated by Hugo Sanctelliensis before 1151 (cf. MS Oxford, BL, Savile 15, s. XV, f. 181ra–182rb: 'Pars fortune eiusque dominus corpus et que ad corpus attinent significavit...'). Four of the nine known manuscripts, including the two earliest ones, dating from the second half of the thirteenth century (Florence, BNC, II.III.214; Madrid, BN, 10063; Munich, BSB, Clm 3857; Vatican, BAV, Pal. lat. 1892), attribute the text to Ptolemy, either in the title or in the explicit. The attribution may result from the fact that in five manuscripts, including again the two earliest ones (Erfurt, UFB, Dep. Erf. CA 4º 374; Madrid, BN, 10063; Munich, BSB, Clm 3857; Vatican, BAV, Barb. lat. 328; Vatican, BAV, Ott. lat. 1552), the text follows Ptolemy's *Quadripartitum* and Pseudo-Ptolemy's *Liber proiectionis radiorum stellarum* (B.6).

Text '(Madrid, BN, 10063) Liber partium Ptholomei in iudiciis partium 12 domorum. Quoniam in primo libro partium terminos et loca posuimus, iudicia earundem sumministrare curavimus. Pars fortune eiusque dominus corpus et que ad corpus attinent significant — aut eius domini hiis 12 mensibus imitatur. Explicit.'

Bibl. Carmody 1956, 20 (nos 33–34); D. Pingree, 'Māshā'allāh: Greek, Pahlavī, Arabic and Latin Astrology', in *Perspectives arabes et médiévales sur la tradition scientifique et philosophique grecque. Actes du colloque de la SIHSPAI (Société internationale d'histoire des sciences et de la philosophie arabes et islamiques), Paris, 31 mars – 3 avril 1993*, eds A. Hasnawi, A. Elamrani-Jamal, M. Aouad, Leuven-Paris, 1997, 123–36: 125.

Modern ed. ---

EDS ---

MSS Cracow, BJ, 580, s. XV, f. 187v–188v (incomplete)
Erfurt, UFB, Dep. Erf. CA 4º 374, s. XIV, f. 162v–168v
Florence, BNC, II.III.214, s. XV, f. 49v–54r
Madrid, BN, 10063, s. XIII, f. 22va–23va
Munich, BSB, Clm 3857, s. XIII, f. 43vb–46vb
Nürnberg, SB, Cent. VI 22, s. XIV, f. 182ra–186va
Vatican, BAV, Barb. lat. 328, s. XV, f. 70v–76r
Vatican, BAV, Ott. lat. 1552, s. XV, f. 74v–82v
Vatican, BAV, Pal. lat. 1892, s. XVI, f. 99r–103v

B.9. *De motibus et iudiciis planetarum*

A brief account of the domiciles, exaltations, nature, influence and revolution periods of the planets, found as a stand-alone text attributed to Ptolemy in the two manuscripts listed below, both copied in the first half of the fifteenth century. This work in fact first occurs, with attribution to Ptolemy, in two encyclopedias composed *c.* 1230–1240: Bartholomeus Anglicus, *De proprietatibus rerum* VIII (where it is disseminated in various places) and Arnold of Saxony, *De floribus rerum naturalium* I.2. The work is also found in four fifteenth- and sixteenth-century manuscripts, where it is inserted into excerpts of Michael Scot's *Liber introductorius* (Florence, BNC, Magliabech. XXII.22, f. 41va–41vb; London, BL, Addit. 41600, f. 59vb–60rb; Milan, BA, I. 90 sup., f. 245v–246r; Venice, BNM, lat. VIII.21 (2685), f. 27vb–28rb). The origin of this work and its attribution to Ptolemy are as yet unclear.

Text '(ed. Draelants/Frunzeanu) In libro de iudiciis planetarum Ptolomeus. Saturnus. Sub Saturno sunt hec signa Capricornus et Aquarius et sunt eius domus. Regnat in Libra et in Ariete — (Luna) complet cursum suum in viginto octo diebus.'

Bibl. I. Draelants, E. Frunzeanu, 'Sur les traces du *De motibus/iudiciis planetarum* attribué à Ptolémée', *Early Science and Medicine* 16 (2011), 571–99.

Modern ed. Draelants/Frunzeanu, 595–99 (from all known MSS).

EDS ---

MSS Basel, UB, O.IV.4, s. XV, f. 11v–12r
Lyon, BM, 172, s. XV, f. 52r–52v

B.10. *Liber figure*

An astrological text dealing with the interpretation of a peculiar interrogation horoscope called 'figura artificialis'. The unique manuscript was copied in northern France, probably Paris, in or shortly before 1266. The text is attributed to Ptolemy in the explicit and quotes, in the last sentence, an otherwise unknown *Liber planetarum* by Anaxagoras.

Text '(Vatican, BAV, Pal. lat. 1414) Cum omnibus directe intuentibus constet esse necessarium aliquid in astronomia arte prevalere, ut tanti operis sine magno labore fructum posse assequi quatinus insudendum sit recte cognoscetur. Est autem non minima pars tante artis cum ad plenum figura — In omnibus vero domibus prout queque habet prosperitatis sive adversitatis et sicut planete se habent pie aut impie, itaque diudicentur. Si autem aliquis alicui deesse quod sibi minus videatur, in libro planetarum requiratur secundum hoc quod Anaxagoras ibi disposuit. Finitus est liber figure Ptholomei.'

Bibl. Carmody 1956, 20 (no. 23).

Modern ed. ---

EDS ---

MS Vatican, BAV, Pal. lat. 1414, s. XIII, f. 27ra–29vb

B.11. *Liber de nativitatibus hominum*

This text describes the native (men and women under distinct rubrics) of the twelve zodiacal signs in twelve chapters preceded by a preface. It is attributed to Ptolemy in the title of three manuscripts (Florence, BML, Ashburnham 1448; London, WL, 2; and Munich, BSB, Clm 25009) and the last sentence of the preface makes it clear that the work derives its substance from a book by Ptolemy: 'secundum quod reperitur in libro Ptholomei peritissimi astrologi.' Four manuscripts (London, WL, 2; Paris, BnF, lat. 7016A; Paris, BnF, lat. 7817; Vatican, BAV, Vat. lat. 11253) have an additional chapter at the beginning on how to determine the sign of birth by onomancy ('Ad inveniendum signum nativitatis cuiuslibet hominis, recipe nomen eius et nomen sue matris...'). Two manuscripts (Nürnberg, GNM, 42296, and Wolfenbüttel, HAB, 784 Helmst.) have an expanded version with further characteristics of the sign added at the beginning and at the end of each chapter. Texts describing the native of the

twelve signs have a long history since Antiquity and at least one version circulated under the names of Hermes and Ptolemy in Arabic, the *Kitāb Mawālid al-rijāl ʿalā raʾy Harmis wa-Baṭlamiyūs* for men and the *Kitāb Mawālid al-nisāʾ ʿalā raʾy Harmis wa-Baṭlamiyūs* for women (see Sezgin 1974–1979, VII, 46, nos 5–6; also M. Ullmann, *Die Natur- und Geheimwissenschaften im Islam*, Leiden, 1972, 284).

Note For further texts describing the native of the twelve signs attributed to Ptolemy, see R.38, R.44 and R.55.

Text '(Munich, BSB, Clm 25009) **[PREFACE]** De nativitatibus hominum. Inferiora corporis reguntur a superioribus ut patet per astrologos et sapientes — secundum quod reperitur in libro Ptholomei peritissimi astrologi. **[TEXT]** Incipit liber Ptholomei peritissimi astrologi de nativitatibus hominum. (12v) De Ariete. Natus sub Ariete, a medio Martii ad medium Aprilis, erit magne industrie, nec dives nec multum pauper erit, a proximis suis ledetur, de rebus mortuorum... (13r) Puella vero tunc temporis nata erit iracunda, detrimentum invidie patietur — Dies Veneris et Lune sunt istis meliores, dies Martis et Saturni mali. Isti fideliter vivent, tam vir quam mulier. Et hec dicta pro nunc sufficiant.

Bibl. ---

Modern ed. D. Bini, P. Di Pietro Lombardi, L. Ventura, *Liber physiognomiae. Lat. 697 = α.W.8.20 della Biblioteca Estense Universitaria di Modena*, Modena, 2000, 42–52 (edition, Italian translation and facsimile of Modena, BEU, 697).

EDS ---

MSS Florence, BML, Ashburnham 1448, s. XV, f. 190v–193r
London, BL, Additional 10775, s. XVI, f. 291r–297v
London, WL, 2, s. XV, f. 1r–6v
Modena, BEU, lat. 697 (Alfa W.8.20), s. XV, f. 3r–8v
Munich, BSB, Clm 25009, s. XV–XVI, f. 12r–19r
Nürnberg, GNM, 42296, s. XV, f. 10va–13va
Paris, BM, 3636, s. XV, pp. 61–67
Paris, BnF, lat. 7016A, s. XV, f. 92r–94v and 113r
Paris, BnF, lat. 7817, s. XV, f. 110v–118r
Vatican, BAV, Vat. lat. 11253, s. XV, f. 62r–73v
Venice, BNM, lat. VIII.21 (2685), s. XVI, f. 94ra–96vb
Wolfenbüttel, HAB, 784 Helmst. (875), s. XV, f. 224r–233v

B.12. *De temporum mutatione*

An astrometeorological parapegma arranged according to the twelve months from September to August, but apparently unrelated to Book II of the *Phaseis* (A.4). The text was probably translated from the Greek, as suggested by the names of the stars, which are consistently given in Greek. In most manuscripts, as well as in ed. Venice

1509, it forms a chapter of Pseudo-Ptolemy's *Iudicia* (B.3). The source of the *Iudicia* is in fact an anonymous text extant in at least two manuscripts: Burgo de Osma, Archivo de la Catedral, 7, s. XI–XII, f. 89r–89v ('Prima die mensis Septembris, id est Carius, appareret cum Solis ortu — Vicesima die mensis eiusdem [Augusti] Protigitur apparet, scilicet VIIIa et Oistos ponet, est autem finis dekymos post dies XL'), and →Paris, BnF, lat. 7443, f. 53v–54r. The author of the *Iudicia* copied the text without significant changes, except that he added the introductory sentence ('Ut autem de temporum mutatione particulariter nosse verum desideraveris, regule que iam dicentur ab animo tuo non labantur') and the Arabic word 'Alferat' ('al-faras', 'the horse') for 'Equus' under 25 September. The *De temporum mutatione* was later excerpted from the *Iudicia* and enjoyed considerable success in the fifteenth and sixteenth centuries under the name of Ptolemy (see Notes below).

Note 1 The chapter from Pseudo-Ptolemy's *Iudicia* was borrowed by John of Eschenden in his influential *Summa iudicialis de accidentibus mundi* (*c.* 1347–48), *Tractatus* I, *Distinctio* 10, *Capitulum* 12: 'Capitulum 12 de temperie aeris seu mutatione eius secundum ortus et occasus stellarum fixarum. **Ptolemeus** unus de regibus Egypti in quodam libro suo quem scripsit ad Aristotelem et incipit liber sic: "Signorum alia sunt masculine etc." Et dicit Virgilius et Servius in Georgicis lib. prio. quod tam ortus quam occasus Arcturi tempestates gravissimas facit. Et **Ptolemeus** ibidem in fine libri sui fere dicit sic: "Aeris autem de mutatione temporum particularium nosce verum desideras regulae quae iam docentur ab animo tuo non labantur. Prima die mensis Septembris, si custos plaustri, apparuerit cum Solis ortu, et mutatur aer in septima hora, et hoc fit inter diem et noctem. Septima vero die eiusdem mensis, vespertinus apparet et mutatur aer — (20a die Augusti) et finis comunis, id est Canis, ante unum diem." Istas regulas ponit **Ptolemeus** de mutatione temporis anni. Et nota quod iste non fuit idem **Ptolemeus** qui scripsit Albu. magis [i.e., *Almagesti*] et librum Quadripartiti sed fuit unus de regibus Egipti' (ed. Venice, 1489, sig. 62va–62vb).

Note 2 John of Eschenden's chapter (Note 1), in a slightly abridged version, became part of astrometeorological collections at the University of Cracow in the second half of the fifteenth century, as witnessed by four manuscripts: →Munich, BSB, Clm 51, f. 109ra–109rb ('De ortu et occasu stellarum secundum autorem summe Anglicane distinctionem 10, capitulo duodecimo. September: Prima die Septembris oritur stella que dicitur Custos Plaustri et mutatur aer in 7 horis — Augustus: 15 Augusti Lira et mutatur aer, 19 die Delphines apparet, 28 die aer turbatur. Has considerationes posuit **Ptolomeus**, non qui librum Almagesti scripsit, sed unus rex Egipti, qui et **Ptolomeus** dicebatur. Hec autor summe Anglicane differentia 10, capitulo 12, laus altissimo Deo'); Cracow, BJ, 2495, f. 31r; →Dresden, SLUB, N. 100, f. 226r; and →Paris, BnF, lat. 7350, f. 96v–97r. The copy of the Dresden

MS was briefly noted by Markowski 1990, 176 no. 74, who attributed the text to Petrus Gaszowiec for reasons that are not explained.

Note 3 Towards the end of the fifteenth century, the Cracow version (Note 2) was reused by Johannes de Glogovia, who inserted it, with minor changes, into two of his works, the *Introductorium astronomie in ephemerides*, *Differentia* 12 ('Differentia duodecima de ortu et occasu stellarum secundum autoris summe Anglicane sententiam, dis. 10, cap. XII, in quarum ortu et occasu fit aeris variatio et mutatio. September: Prima die Septembris oritur stella que dicitur Custos Plaustri et mutatur aer in septem horis — Augustus: 15 die Augusti Lyra apparet et mutatur aer, 19 Delphinus apparent, 28 die aer turbatur. Has considerationes ortus et occasus stellarum inquit autor summe Anglicane loco preallegato. Posuit **Ptholomeus**, non ille qui librum Almagesti fecit, sed alius quidem rex Egipti, qui etiam **Ptholomeus** nominabatur', ed. Cracow, Florianus et Wolfgangus, 1514, sig. [f_{iiii}]va–[f_{iiii}]vb) and the *Tractatus preclarissimus in iudiciis astrorum de mutationibus aeris* (1490), or Book II of his *Summa astrologie*, *Differentia* 42 ('Differentia 42 de ortu et occasu stellarum secundum autoris summe Anglicane sententiam, dis. X, cap. XII, signantque et efficiunt aure mutationem et turbationem. September: Prima dies Septenbris oritur stella que dicitur Custos Plaustri et mutatur aer in 7 horis — Augustus: 15 die Augusti Lira apparet et mutatur aer, 19 die Delphines apparent, 28 die aer turbatur. Has considerationes inquit autor summe Angelicane (!) loco preallegato. Posuit **Ptholomeus**, non ille qui librum Almagesti composuit, sed quidam rex Egipti, qui et **Ptholomeus** dictus est', ed. Cracow, Florianus et Wolfgangus, 1514, sig. g_{iv}rb–g_{iv}va).

Text '(ed. Burnett, 'Late Antique') De temporum mutatione. Ut autem de temporum mutatione particulariter nosse verum desideraveris, regule que iam dicentur ab animo tuo non labantur. Prima die mensis Septembris, Icarus, custos plaustri, apparet cum Solis ortu — (Quinta decima die Augusti) E<te>sie des<in>unt et est finis Cionis, id est Canis, ante unam diem. Notandum est quod cum est annus Saturni et Martis omnia signa mutationis validiora, in ceteris mi[c]tiora. Ut autem ratio inveniendi anni non deficiat... et ubi numerus defuerit, ibi est caput anni, et [si] planeta illius turris habeatur dominium totius anni.'

Bibl. C. Burnett, 'An Unknown Latin Version of an Ancient *Parapegma*: The Weather-Forecasting Stars in the *Iudicia* of Pseudo-Ptolemy', in *Making Instruments Count. Essays on Historical Scientific Instruments Presented to Gerard L'Estrange Turner*, eds R. G. W. Anderson, J. A. Bennet, W. F. Ryan, Aldershot, 1993, 27–41; C. Burnett, 'Late Antique and Medieval Latin Translations of Greek Texts on Astrology and Magic', in *The Occult Sciences in Byzantium*, eds P. Magdalino, M. Mavroudi, Genève, 2006, 325–59: 334–43; D. Lehoux, *Astronomy, Weather, and Calendars in the Ancient World. Parapegmata and Related Texts in Classical and Near-Eastern Societies*, Cambridge, 2007, 166–67.

Modern ed. Burnett, 'An Unknown Latin Version' (from MS London, BL, Harley 5402 and ed. Venice 1509); Burnett, 'Late Antique', 348–54 (from MSS Chantilly, Musée Condé,

322 and London, BL, Harley 5402, and ed. Venice 1509). Burnett's first edition is reproduced, together with an English translation, by Lehoux, 425–30.

EDS Venice, Petrus Liechtenstein, 1509, sig. 13vb–14rb

MSS Cesena, BCM, Plut. S.XXVII.3, s. XV, f. 113r
Chantilly, MC, 322 (641), s. XIV, f. 137r–138r
Florence, BML, Ashburnham 1733, s. XIII, f. 34va–35va
London, BL, Additional 10775, s. XVI, f. 330v–332v
London, BL, Harley 2269, s. XVI, f. 21v (beginning only)
London, BL, Harley 5402, s. XII, f. 14v (incomplete)
Madrid, BN, 10053, s. XIII, f. 33rb–33vb
Vatican, BAV, Pal. lat. 1408, s. XIV, f. 34r–34v
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 53rb–53va

B.13. *Inerrantium stellarum significationes*

An astrometeorological parapegma arranged according to the twelve months from January to December. The text was translated from the Greek by Niccolò Leonico Tomeo (1456–1531) and first published in Venice in 1516. The Latin version is consistently attributed to Ptolemy (in the title) and was included in Ptolemy's *Opera omnia* published in Basel 1541 and Basel 1551[2]. Whereas it shares the subject matter with the parapegma contained in Book II of the *Phaseis* (A.4), this text, however, has nothing to do with Ptolemy, as Denis Petau had already recognised in his notes to his translation of the *Phaseis* (A.4.2, see ed. Paris 1630, sig. 415–416). Instead it is a translation of the so-called 'Clodius Tuscus parapegma', attributed to Ptolemy in at least one Greek manuscript, Vatican, BAV, Ott. gr. 231: *Πτολεμαίου ἐπισημασίαι ἀστέρων ἀπλανῶν*. As noted by Bianchi (*Der Kalender*, 10–11), this Greek manuscript (or its model) was certainly the exemplar used by the translator, for it ends incomplete on 23 December, like all manuscripts and editions listed below (with the exception of Schwäbisch Hall 1539, whose editor added the entries for 24–31 December from another Greek manuscript, as these entries correspond to the complete Greek text). The extraordinary editorial success of *Inerrantium stellarum significationes* is due to the fact that it was published together with Ovid's *Fasti* and other works by Ovid. The exceptions are Basel 1533 (astrological compendium), Wittenberg 1534 (stand-alone), Basel 1541 (Ptolemy's *Opera omnia*), Basel 1542 (with Ambrogio Calepino's Latin dictionary), Basel 1551[2] (Ptolemy's *Opera omnia*), Basel 1551[3] (astrological compendium) and Paris 1630 (Denis Petau's *Uranologion*).

Note The early printed editions listed below are those I have been able to see. Additional editions, whose existence is attested by their identification number EDIT16 (Italian) or VD16 (German-speaking), include in chronological order:

Florence, Philippus Junta, 1525 (EDIT16: CNCE 53293); Venice, Bernardinus Staginus, 1531 (EDIT16: CNCE 33367); Basel, Henricus Petri, 1544 (VD16 ZV 22164); Rome, Jacobus Tornerius & Jacobus Biricchia, 1586 (EDIT16: CNCE 34457); Rome, Jacobus Tornerius & Bernardus Donangelus, 1586 (EDIT16: CNCE 64436); Venice, Joannes Baptista Bonfadinus, 1587 (EDIT16: CNCE 68945); Venice, Matthaeus Zanettus & Cominus Praesenius, 1594 (EDIT16: CNCE 39076); Rome, Nicolaus Mutius, 1596 (EDIT16: CNCE 60635). It is certain that there are more sixteenth-century editions, in particular printed in France and in the Low Countries, and no attempt has been made to locate post-1600 copies.

Text '(ed. Venice 1516) Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'

Bibl. C. Wachsmuth, *Iohanni Laurentii Lydi Liber de ostentis et calendaria Graeca omnia*, Leipzig, 1897 [first ed. Leipzig, 1863], VIII; L. Bianchi, *Der Kalender des sogenannten Clodius Tuscus*, Heidelberg, 1914, 3–4 and 10–11; Carmody 1956, 17 (no. 6).

Modern ed. None. Critical edition of the Greek text by Wachsmuth, 117–57, and Bianchi, 22–48. Wachsmuth's Greek text is reproduced, together with an English translation, by D. Lehoux, *Astronomy, Weather, and Calendars in the Ancient World. Parapegmata and Related Texts in Classical and Near-Eastern Societies*, Cambridge, 2007, 343–75.

EDS Venice, Aldus Manutius & Andreas Socerus, 1516, first part, sig. 2r–11r
Strasbourg, Johannes Knobloch, 1522, sig. 2r–12v
Antwerp, Joannes Grapheus, 1527, sig. A_2r–B_2v
Basel, Johannes Hervagius, 1533, second part, sig. 79–84
Venice, Aldus Manutius & Andreas Socerus, 1533, first part, sig. 2r–11r
Basel, Henricus Petri, 1534, sig. 202r–211r
Wittenberg, Nicolaus Schirlentz, 1534, sig. A_{iii}v–[B_6]r
Lyon, Sebastianus Gryphius, 1536, sig. ddd_2v–[ccc_4r]
Basel, Henricus Petri, 1538, sig. 405–423
Lyon, Sebastianus Gryphius, 1539, sig. ddd_2v–[ccc_4]r
Schwäbisch Hall, Petrus Brubachius, 1539, sig. [O_7]r–Q_1v
Basel, Henricus Petri, 1541, sig. 505–511
Basel, Hyronymus Curio, 1542, sig. A_3r–a_7r
Lyon, Sebastianus Gryphius, 1545, sig. 2–20
Lyon, Sebastianus Gryphius, 1546, sig. bbb_4r–[ccc_4]v
Lyon, Sebastianus Gryphius, 1547, sig. 2–20
Basel, Henricus Petri, 1548, sig. Gg_1v–Hh_2v
Cologne, Martinus Gymnicus, 1548, sig. 162–176
Basel, Henricus Petri, 1551, sig. 442–447
Basel, Henricus Petri, 1551, sig. Gg_1v–Hh_2v

Basel, Johannes Hervagius, 1551, second part, sig. 79–84
Lyon, Sebastianus Gryphius, 1554, sig. 2–20
Cologne, Gualtherus Fabricius, 1555, sig. 162–176
Basel, Henricus Petri, 1556, sig. Gg_1v–Hh_2v
Basel, Henricus Petri, 1560, sig. Gg_1v–Hh_2v
Cologne, Gualtherus Fabricius, 1560, sig. 162–176
Frankfurt/M., Georgius Corvinus, Sigismundus Feierabent & Wigandus Gallus, 1563, sig. 435–454
Cologne, Gualtherus Fabricius, 1564, sig. 162–176
Cologne, Petrus Horst, 1564, third part, sig. 121–135
Lyon, Antonius Gryphius, 1567, sig. 2–20 (?)
Basel, Henricus Petri, 1568, sig. 387–406
Frankfurt/M., Wigandus Gallus, 1575, sig. 411–429
Lisbon, Antonius Riberius, 1575, sig. [Z_v]r–[aa_{iiii}]v
Cologne, Johannes Gymnicus, 1576, sig. 180–199
Frankfurt/M., Georgius Corvinius, 1579, sig. 411–429
Basel, Ex officina Brylingeriana, 1582, sig. a_2r–b_2v
Frankfurt/M., Christophorus Corvinus, 1582, sig. 411–429
Leipzig, Joannes Steinmann, 1582, sig. 267–286
Frankfurt/M., Johannes Feyerabend, 1587, sig. 411–429
Porrentruy, Joannes Fabrus, 1594, sig. 3–21
Frankfurt/M., Joannes Saurius, 1599, sig. 384–402
Paris, Sebastianus Cramoisy, 1630, sig. 94–101

MSS Cracow, BJ, 588, s. XVI, f. 2r–10r
Prague, NKCR, adlig. 14.H.232 (2765), s. XVI, f. 13v–14r

B.14. *De imaginibus super facies signorum*

A work on the making of talismans of the 36 decans, consisting of a brief introduction, 46 chapters corresponding to 46 talismans, and a closing paragraph. The text was translated from the Arabic, probably by John of Seville. Chapters 1–7 and 9 (without the introduction) have been discovered in two Judaeo-Arabic fragments from the Cairo Genizah now in Cambridge (Burnett/Bohak and Bohak/Burnett). The Latin version is consistently attributed to Ptolemy, except in three manuscripts, where it is ascribed to Albumasar (Erlangen, UB, 434 and London, BL, Additional 16566, which have the same incomplete version) or to Thebit Bencora (New Haven, YU-BRBML, Beinecke 1059).

Note Three manuscripts ([ZZ] Conte de Sarzana, no shelfmark; Ghent, UB, 1021A; and St Petersburg, BAN, Q. 537) preserve a stylistic reworking of the text: 'Incipit libellus Ptolemaei, inter magos expertissimi, de compositione imaginum ad operationem mirabilium effectum. Ars imaginum est multiplex de qua multi multa scripserunt et varios modos tradiderunt faciendi et operandi in eis. Orientales autem

et Indi, qui in magicis prae omnibus aliis sunt expertissimi ... Imago ad ariendum furem sive latronem a domo tua — quod saepius probavi. Adest finis libelli imaginum quem ego non Ptolomaei sed potius Budasari viri in magicis doctis crediderim ad Ptolemaeum quempiam ita enim in vetustissimo exemplari legere me memini.' The author (or the scribe of the common exemplar) casts doubt about the attribution to Ptolemy and says that it would rather be a text addressed by 'Budasarus, a learned man in magical things', to a certain Ptolemy, as he claims to have read in a very old manuscript. This 'Budasarus' or 'Budasari' is otherwise unknown. On this stylistic reworking, see also C. Burnett, 'The Conte de Sarzana Magical Manuscript', in Burnett 1996, IX, 3–4, and Boudet, 'The Transmission', 152 n. 30.

Text '(ed. Boudet) Liber Ptholomei de ymaginibus super facies signorum. **[INTRODUCTION]** Opus ymaginum Ptholomei et est omnibus modis proprior et veracior in probatione quoniam eius effectus constitutus est super faciem signorum 12. Dixit Alburabeth Benfeliz quod omnes orientales operabantur per has ymagines... **[1]** De Ariete. Cum volueris ligare latrones ut non intrent domum, figurabis ymaginem viri ex ere cum ascenderit prima facies Alhamel — **[46]** ut a vento moveatur aut a loco flatus venti et videbis mirabilia. **[CLOSING PARAGRAPH]** Commendatio operis. Dixit Ptholomeus: Edidi hunc librum de ymaginibus super facies signorum. Qui ergo voluerit operari ex eis — et impetrabis ab eo quod animus tuus desiderat. Explicit liber Ptholomei de ymaginibus super facies signorum.'

Bibl. W. Gundel, *Dekane und Dekansternbilder. Ein Beitrag zur Geschichte der Sternbilder der Kulturvölker*, Glückstadt-Hamburg, 1936, 394–401; Carmody 1956, 20 (nos 28–29); L. Thorndike, 'Traditional Medieval Tracts Concerning Engraved Astrological Images', in *Mélanges Auguste Pelzer*, Louvain, 1947, 217–73: 256–59; Sezgin 1974–1979, VII, 47 (no. 12); D. Pingree, 'The Diffusion of Arabic Magical Texts in Western Europe', in Scarcia Amoretti 1987, 57–102: 75–76; D. Pingree, 'Learned Magic in the Time of Frederick II', *Micrologus* 2 (1994), 39–56: 44 (reprinted in Pingree 2014, 477–94); Weill-Parot 2002, 77–79; J.-P. Boudet, 'Un traité de magie astrale arabo-latin: Le *Liber de imaginibus* du Pseudo-Ptolémée', in *Natura, scienze e societa medievali. Studi in onore di Agostino Paravicini Bagliani*, eds C. Leonardi, F. Santi, Firenze, 2008, 17–35; C. Burnett, G. Bohak, 'A Judaeo-Arabic Version of Ṯābit ibn Qurra's *De Imaginibus* and Pseudo-Ptolemy's *Opus Imaginum*', in *Islamic Philosophy, Science, Culture and Religion. Studies in Honor of Dimitri Gutas*, eds F. Opwis, D. Reisman, Leiden-Boston, 2012, 179–200; D. Juste, 'The Impact of Arabic Sources on European Astrology: Some Facts and Numbers', *Micrologus* 24 (2016), 173–94: 193 (no. 49); J.-P. Boudet, 'The Transmission of Arabic Magic in Europe (Middle Ages – Renaissance)', *Micrologus* 28 (2020), 143–65: 148; Bohak/Burnett 2021, 32–36.

Modern ed. Boudet, 'Un traité', 26–35 (from MS Paris, BnF, lat. 16204, with variants from Florence, BML, Plut. 30.29, and Florence, BNC, II.III.214). The Judaeo-Arabic fragments (chapters 1–7 and 9) are edited, together with an English translation and the corresponding Latin text including the introduction (from five MSS), by Bohak/Burnett, 182–89. A provisional edition of the Judaeo-Arabic fragments (chapters 1–5), together with the Latin (from Boudet) and an English translation of both, had already been provided by Burnett/Bohak, 194–98.

EDS ---

MSS Cambridge, UL, Gg 6.3 (1572), s. XIV, f. 213r (excerpts)
Copenhagen, KB, Gl. kgl. S. 3499 8vo, s. XV, f. 96r–102v
Cracow, BJ, 793, s. XV, f. 139r–139v (excerpts)
Edinburgh, RO, Crawford Cr. 3.29, s. XIV, f. 2ra–3ra
Erlangen, UB, 434 (264), s. XIV, f. 149rb–150rb (end missing)
Florence, BML, Plut. 30.29, s. XIII, f. 61va–63ra
Florence, BML, Plut. 89 sup. 38, s. XV, f. 9r–17r
Florence, BNC, II.III.214, s. XV, f. 4v–8r
Ghent, UB, 5 (416), s. XV, f. 22r–24r
Ghent, UB, 1021A, s. XVI, f. 1r–4v (reworking, end only)
Leiden, UB, Voss. Chymici Q.27, s. XVI, f. 110r–114v
London, BL, Additional 16566, s. XV, f. 10ra–10vb (end missing)
London, BL, Harley 80, s. XIV, f. 76r–77v
London, BL, Sloane 3883, s. XVII, f. 93v (closing paragraph only)
London, SAL, 39, s. XV, f. 23r–24r
Munich, BSB, Clm 59, s. XV, f. 240vb–242vb (end missing)
New Haven, YU-BRBML, Beinecke 1059, s. XIV, f. 144r–145r (chs 1–15)
Oxford, BL, Ashmole 346, s. XV–XVI, f. 118r–119r
Oxford, BL, Bodley 463, s. XIII, f. 77va (closing paragraph only)
Oxford, BL, Digby 37, s. XIV, f. 43r–45v
Oxford, BL, Digby 57, s. XIV–XV, f. 176v–178r
Paris, BnF, lat. 7272, s. XIV, f. 171va–172va
Paris, BnF, lat. 7282, s. XV, f. 31va–33rb
Paris, BnF, lat. 7337, s. XV, pp. 41b–45a
Paris, BnF, lat. 16204, s. XIII, pp. 539b–543a
Paris, BnF, lat. 17178, s. XV, f. 32r–34r (beginning missing)
St Petersburg, BAN, Q. 537, s. XVI, f. 38v–55r (reworking)
Vatican, BAV, Pal. lat. 1354, s. XV, f. 58v–59v (end missing)
Vatican, BAV, Pal. lat. 1401, s. XIV, f. 106r–108v
Vatican, BAV, Reg. lat. 1452, s. XIV, f. 78va–79va
Vatican, BAV, Vat. lat. 4085, s. XV, f. 95r–97r
Venice, BNM, lat. XIV.174 (4606), s. XIV, f. 39r–42r
Vienna, ÖNB, 2378, s. XIV, f. 44rb–46va
Wiesbaden, HLB, 79, s. XVI, f. 53r–54v
[ZZ] Conte de Sarzana, no shelfmark, s. XVI, pp. 55–71 (reworking)

B.15. *Liber Ptholomei regis Egiptii*

A text of astral magic, of which only the first lines, comprising a short preface and the beginning of the first chapter, survive in a fifteenth-century manuscript. The first chapter deals with the making of a talisman to destroy a city or a castle by means

of an image of Saturn made in the second decan of ... (?) at the hour of Saturn (?). The sign and the planet involved are denoted by unclear symbols.

Text '(Paris, BnF, lat. 17178) Ptholomei regis Egiptii liber incipit. Antiquorum secreta ruminando philosoforum nullum opus in arte misci (?) opere de y<maginib>us certius nec fortius... Sequitur operatio y<maginis> ad civitatis destructionem. Si ergo volueris operari ad destructionem alicuius civitatis vel castri vel villae, funde y<maginem> Saturni — carmen conveniens tali negocio quod in fine libri sequitur parte (?) acci...'

Bibl. Bohak/Burnett 2021, 33 n. 58.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 17178, s. XV, f. 33v (beginning only)

B.16. *Liber de impressionibus imaginum, anulorum et sigillorum secundum facies duodecim signorum zodiaci*

A text on the making of talismans according to the position of the Sun in the twelve signs and various other astrological configurations, including the systematic use of the decans. All four manuscripts date from the sixteenth century and the text is listed, with attribution to Ptolemy, in Johannes Trithemius's *Antipalus maleficiorum* (1508), I.3, no. 65: 'Item est liber Ptholemaei de componendis imaginibus, annulis atque sigillis duodecim signorum, qui sic incipit: Incipiamus tractare de compositione' (ed. J.-P. Boudet, *Entre science et nigromance. Astrologie, divination et magie dans l'Occident médiéval (XII^{e}–XV^{e} siècle)*, Paris, 2006, 551). This text appears to be a slightly revised version of another text, which is attributed to Arnold of Villanova in MS Boncompagni 506, s. XIV, f. 78r–81r ('Incipit liber faciendi sigilla sive impressiones secundum Arnaldum de Villanova. Incipiamus cum Dei auxilio de hiis tractare que fieri possunt Sole existente — et mirabiliter eficax in efectu. Deo gratias. Expliciunt modi faciendi sigilla'; on this manuscript, whose present location is unknown, see Narducci 1892, 292–93), to Bernard of Gordon in MSS Vienna, ÖNB, 3162, s. XV, f. 239r–241r and →Wiesbaden, HLB, 79, f. 54v–56rb ('Incipit tractatus magistri Bernhardi de Gordonio de hiis que fieri possunt Sole existente in quolibet signo et faciebus cuiuslibet signi secundum quantitatem et effectus eius in istis inferioribus et de sigillis sive ymaginibus contra omnes egritudines faciendis servatis tamen condictionibus que dicentur. Aries est signum femineum, igneum, dorsum membris, fit enim sine lingua, habens sub quolibet pede columpnam — efficax in effectum. Finit tractatus de ymaginibus signorum magistri Bernhardi de Gordonio'), and anonymous in six other manuscripts (→London, BL, Sloane 332, f. 6r–7v; →Naples, BN, VIII C 45, s. XV, f. 105v–111r; Prague, NKCR,

adlig. 14.H.208 (2764), s. XVI, f. 1r–3r; →Vienna, ÖNB, 5239*, s. XIV, f. 3r–5v; →Vienna, ÖNB, 5311, s. XIV, f. 137va–138va; and Zwickau, Ratsschulbibliothek, 1.12.2, s. XV, f. 9v–13r). The text just mentioned is in turn an expanded version, or an alternative translation, of the *Liber imaginum signorum* attributed to Hermes and Enoch, which is preserved in numerous manuscripts from the fourteenth century onwards (see P. Lucentini, V. Perrone Compagni, *I testi e i codici di Ermete nel Medioevo*, Florence, 2001, 52–53, no. 18) and which first appears in *Picatrix* II.12 (ed. Pingree 1986, 82–85).

Text '(Paris, BnF, lat. 5934) Incipit liber Ptolomei de impressionibus imaginum, anullorum et sigillorum secundum facies duodecim signorum zodiaci. **[PREFACE]** Incipiamus tractare de compositionne et impressione imaginum, sigillorum et anullorum que possunt fieri Sole existente in quolibet signo secundum gradus et facies singulas... **[1]** Cum Sol est in Ariete. Aries est signum igneum, incisum membris, sine lingua, habens sub quolibet pede duodecim lumina ex auro, argento et ferro qua substinetur in sanitate — **[12]** (in Piscibus) et mitigare crudelitatem. Et est operatio eius in magnis deffectibus valde mirabilis. Finis libri Ptolomei de sigillis et impressionibus imaginum secundum duodecim signa.'

Bibl. C. Burnett, 'The Conte de Sarzana Magical Manuscript', in Burnett 1996, IX, 3; J.-P. Boudet, 'The Transmission of Arabic Magic in Europe (Middle Ages – Renaissance)', *Micrologus* 28 (2020), 143–65: 152 n. 30; Bohak/Burnett 2021, 33 n. 58.

Modern ed. ---

EDS ---

MSS Ghent, UB, 1021A, s. XVI, f. 32r–37v
Paris, BnF, lat. 5934, s. XVI, f. 80r–85v
St Petersburg, BAN, Q. 537, s. XVI, f. 120r–127v
[ZZ] Conte de Sarzana, no shelfmark, s. XVI, pp. 31–43

B.17. *Archanum magni Dei de reductione geomancie ad orbem*

A text of geomancy translated by Bernard of Gordon, professor of medicine at the University of Montpellier, on 22 December 1295. According to the full title, this text was revealed by God to Ptolemy 'the king of the Arabs.' At the same time, it is clear from the first chapter that the text was written by a Christian author (cf. 'per Christum dominum nostrum' and the mention of Paul the Apostle, MS Paris, BnF, lat. 15353, f. 87r) and in Spain, apparently for a king of Castile (cf. 'Queritur de nomine et vita et statu et regno et tota disposicione regis Castelle usque ad finem vite sue', ibid.). This seems to be confirmed by a compilation of astrological interrogations, in which the *Archanum magni Dei* is reported to have been composed at the request of the king of Castile: 'Scire debes quod ad preces serenissimi atque illustrissimi principis regis Castelle atque totius Andaluzie fuit

factus quidam novus tractatus pratice iudicialis astronomie per astrologos tunc existentes et fuit intitulatus Archanum magnum Dei. Nam per illum tractatum possunt agnosci exquisite prescientia, preterita et futura in omni eo quod radicaliter potest procedere a voluntate hominis in tantum quantum se potest extendere virtus orbis' (MS Montreal, McGill University, Bibliotheca Osleriana, 7513, s. XV, f. 2r–149v: 5r–5v; this compilation is also found in MSS →Naples, BN, VIII C 45, s. XV, f. 199r–326r, and Vatican, BAV, Barb. lat. 227, s. XV, f. 1r–114v). Demaitre, 44, assumed that Bernard of Gordon translated the text from Provençal because 'there is no evidence that he was familiar with any other language', but Spanish cannot be ruled out.

Text '(Paris, BnF, lat. 15353) Incipit archanum magni Dei revelatum Tholomeo regi Arabum de reductione geomancie ad orbem. Per hoc presens opus possunt cognosci exquisite presentia, preterita et future in omni eo quod vult homo in tantum quantum se potest extendere virtus orbis. Modus autem operandi in hac sacra scientia — et alie sunt fallaces. Explicit. Honor virtus est gloria potestas... Translatio magistri Bernardi de Gordonio phisici regnante Bonifacio papa et Adulpho electo in imperatorem et Philippo rege Francie filio quondam Philippi regis Francie et Iacobo rege Maioricarum et Berengario episcopo Magalonensi et Audoardo rege Anglorum et anno XIII° lecture nostre in phisica in Montepessulano et anno domini M°CC° nonag<inta> quinto die Iovis ante Natale.'

Bibl. P. Meyer, 'Traités en vers provençaux sur l'astrologie et la géomancie', *Romania* 26 (1897), 225–75: 246 and 251–52; Thorndike 1923–1958, II, 120; L. Thorndike, '*Alfodhol* and *Almadel*: Hitherto Unnoted Mediaeval Books of Magic in Florentine Manuscripts', *Speculum* 2 (1927), 326–31: 329–30; Carmody 1956, 20 (no. 24); T. Charmasson, *Recherches sur une technique divinatoire: la géomancie dans l'Occident médiéval*, Genève-Paris, 1980, 217–20 and 290; A. Alonso Guardo, *Los pronósticos médicos en la medicina medieval: el Tractatus de crisi et de diebus creticis de Bernardo de Gordonio*, Valladolid, 2003, 22–23; L. E. Demaitre, *Doctor Bernard de Gordon: Professor and Practictioner*, Toronto, 1980, 43–46; D. Jacquart, 'Bernard de Gordon et l'astrologie', *Centaurus* 45 (2003), 151–58: 152.

Modern ed. Excerpts (beginning and end) edited by Meyer, 251–52.

EDS ---

MSS Cambridge, MC, F.4.27, s. XIV, f. 166ra–173vb (end missing)
Florence, BML, Plut. 89 sup. 34, s. XV–XVI, f. 19r–28v
London, BL, Harley 2404, s. XV, p. 59 (colophon only)
Mühlhausen, SA, 60/2, s. XV, f. 191ra–210rb (different version)
Munich, BSB, Clm 458, s. XV, f. 105r–116r
Paris, BnF, lat. 7349, s. XV, f. 138v–141r
Paris, BnF, lat. 7457, s. XV, f. 83r–96r
Paris, BnF, lat. 15353, s. XIII–XIV, f. 87ra–92vb

B.18. *Canon Ptolomei et Pictagore de diversis eventibus secundum naturas planetarum*

This text is one of the many versions of the so-called 'calculus of the victorious and the vanquished', an onomantic device whose aim is to predict which of the two opponents will win in a fight, whether a sick person will live, and other such questions on the basis of the numerical values of the names of the people concerned and of the planets. This device is attested in Greek and other languages since Antiquity and Ibn al-Nadīm knew one Arabic version ascribed to Ptolemy under the title 'The Adversaries, Which One of Them Succeeds' (tr. B. Dodge, *The Fihrist of al-Nadīm. A Tenth-Century Survey of Muslim Culture*, New York-London, 1970, I, 640). The present version is attributed to both Ptolemy and Pythagoras in the title (omitted in the London MS), an attribution which may simply stem from the fact that both men are named in the text as experts in this device ('regula est in qua laboravit satis Pictagora et Ptolomeus'). Ptolemy and/or Pythagoras are frequently named as experts in or inventors of this device in other Latin versions, for instance MSS London, BL, Addit. 15236, s. XIII–XIV, f. 129v (ed. Burnett, 156–57: 'sicut Philemo [read "Ptolomeo"] et Pictagore fecit per astronomicam artem istius argumenti...'); →London, BL, Sloane 3554, s. XV, f. 14v (ed. Burnett, 158: 'Hec ars que dicitur arithmum Tholomei...'); and Paris, BnF, lat. 7486, s. XIV, f. 68r–70r ('Exortatio ad artem prescientie Ptholomei regis Egypti. Quoniam vis scire prescientie...').

Text '(Budapest, OSK, lat. 59) Canon Ptolomei et Pictagore de diversis eventibus secundum naturas planetarum. Inventum Ptolomei et Pictagore secundum naturas planetarum subtilissima doctrina conpilatum... Regula est in qua laboravit satis Pictag<ora> et Ptolomeus. Hanc Alexander magnus secum habuit in omni suo discursu per orbem — Sex et sex maior vincet. Sex et septem habens 7 vincet.'

Bibl. C. Burnett, 'The Eadwine Psalter and the Western Tradition of the Onomancy in Pseudo-Aristotle's *Secret of Secrets*', *AHDLMA* 55 (1988), 143–67: 150 and 152 (reprinted in Burnett 1996, XI).

Modern ed. Burnett, 155–56 (from MS London, BL, Arundel 339).

EDS ---

MSS Budapest, OSK, lat. 59, s. XIV, f. 19v–20v
London, BL, Arundel 339, s. XII–XIII, f. 69r
Prague, NKCR, I.G.6 (280), s. XV, f. 115v–116r

C. Commentaries

C.1. Commentaries on the *Almagest*

C.1.1. Thebit Bencora, *De hiis que indigent expositione antequam legatur Almagesti*

Thābit ibn Qurra's *Tashīl al-Majisṭī* ('Simplification of the Almagest') translated by Gerard of Cremona. This text is a short introduction to the *Almagest*, consisting of explanations of essential astronomical concepts. For a commentary on it, see C.1.13.

Note An alternative version is found in two manuscripts: Dijon, BM, 449, f. 58va (beginning only, corresponding to § 1–6 in Carmody's edition), and Milan, BA, A. 183 inf., where the text opens 'Incipit astrologia Thesbit Bencora super Almagesti. Tesbit Bencorat radiosa mentis speculatione astrologie...'. Burnett ('Ṯābit ibn Qurra') examined this version in the Dijon MS and concluded that it was a distinct translation, possibly by Hugo Sanctelliensis. However, the complete copy in the Milan MS shows that it is a variant version (a draft?) of Gerard of Cremonas's translation, for as the text goes on, the two versions become closer and closer and virtually identical in places. It is also noticeable that in the Milan MS, the text occurs among the other treatises by Thebit in Gerard's translation.

Text '(Paris, BnF, lat. 9335) Liber quem edidit Tebit filius Chore de his que indigent expositione antequam legatur Almagesti. De his que indigent expositione antequam legatur Almagesti (!). Equator diei est circulus maior qui describitur super duos polos orbis — aut propinqui oppositioni erunt retrogradi. Expletus est liber Tebit filii Chore de his que indigent expositione antequam legatur Almagesti.'

Bibl. Wüstenfeld 1877, 65 (no. 28); Steinschneider 1904, 26 (no. 75); Carmody 1956, 118 (no. 2); F. J. Carmody, *The Astronomical Works of Thabit B. Qurra*, Berkeley-Los Angeles, 1960, 117–18; Sezgin 1974–1979, VI, 90 (no. 5a) and 169 (no. 19); R. Morelon, *Thābit ibn Qurra: Œuvres d'Astronomie*, Paris, 1987, xxxvii–xli; C. Burnett, 'The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century', *Science in Context* 14 (2001), 249–88: 278 (no. 28) (reprinted in Burnett 2009, VII); C. Burnett, 'Ṯābit ibn Qurra the Ḥarrānian on Talismans and the Spirits of the Planets', *La Corónica* 36.1 (2007), 13–40: 33–35; R. Morelon, 'The Astronomy of Thābit ibn Qurra', in *Thabit Ibn Qurra. Science and Philosophy in Ninth-Century Baghdad*, ed. R. Rashed, Berlin-New York, 2009, 601–18: 601–02.

Modern ed. Critical edition by Carmody, *The Astronomical Works*, 131–39 (from 21 MSS). The alternative version (see Note above) has been edited by Burnett, 'Ṯābit ibn Qurra', 34–35, from MS Dijon, BM, 449. Critical edition of the Arabic text, with a facing French translation, by Morelon, *Thābit ibn Qurra*, 1–17.

EDS ---

MSS Berlin, SBPK, lat. fol. 610, s. XIII, f. 93v–97v
Bernkastel-Kues, CSB, 215, s. XIV, f. 99ra–101rb
Cambridge, GCC, 174 (95), s. XIV, pp. 53b–55b (§ 27–54)
Cambridge, UL, Ii 3.3 (1767), s. XIII–XIV, f. 90r–93r
Cracow, BJ, 619, s. XIV–XV, f. 4r–7r
Cracow, BJ, 1924, s. XIII–XIV, pp. 3a–4a (§ 1–11)
Cracow, BJ, 1924, s. XIII–XIV, p. 202 (§ 1–11)
Cracow, BJ, 1970, s. XIII–XIV, f. 37v–42v
Dijon, BM, 449 (270), s. XV, f. 15va–16va
Dijon, BM, 449 (270), s. XV, f. 58va (§ 1–6)
Dresden, SLUB, Db. 86, s. XIII, f. 222r–224r
Dublin, TC, 441, s. XIV, f. 112r–115r
Eger, FK, U^2 VI 1, s. XIV, f. 110r–114r
Escorial, RBMSL, O.II.10, s. XIV, f. 84v–88r
Florence, BML, Plut. 18 sin. 3, s. XIV, f. 106va–111va
Florence, BML, Plut. 18 sin. 6, s. XIV, f. 85ra–89va
Florence, BNC, II.III.24, s. XIV, f. 219va–221va
Glasgow, UL, Hunterian Museum 461, s. XIV–XV, f. 31v–34r
London, BL, Arundel 268, s. XIV, f. 63va–65va
London, BL, Harley 1, s. XIII, f. 16r–17r
London, BL, Harley 13, s. XIII–XIV, f. 119va–122rb
London, BL, Harley 3647, s. XIII–XIV, f. 91va–94va
Milan, BA, A. 183 inf., s. XIV, f. 76ra–77vb
Milan, BA, Q. 69 sup., s. XIV, f. 39r–40v
Milan, BA, S. 77 sup., s. XVI, f. 399r–405v
Montpellier, BIU, Section de Médecine H 323, s. XIII–XIV, f. 112v–117r
Oxford, BL, Ashmole 1522, s. XIV, f. 114va–118va
Oxford, BL, Ashmole 1796, s. XIV, f. 173r–175v
Oxford, BL, Auct. F.5.28 (3623), s. XIII, f. 96v–99r
Oxford, BL, Bodley 463, s. XIII, f. 24ra–26va
Oxford, BL, Bodley 464, s. XIV, f. 92v–95r
Oxford, BL, Bodley 491, s. XIV, f. 111v–116r
Oxford, BL, Digby 168, s. XIV, f. 68ra–69vb
Oxford, BL, Tanner 192, s. XIV, f. 106vb–107vb (§ 1–14)
Oxford, HC, 3, s. XIV, f. 1vb–3va
Oxford, UC, 41, s. XIV, f. 26r–27v
Paris, BM, 3642, s. XIII, f. 7va–9rb
Paris, BnF, lat. 7195, s. XIII–XIV, f. 143va–146vb
Paris, BnF, lat. 7215, s. XIV, f. 168ra–170rb
Paris, BnF, lat. 7267, s. XIII–XIV, f. 27rb–28ra (§ 1–49)
Paris, BnF, lat. 7298, s. XIII–XIV, f. 84ra–86vb
Paris, BnF, lat. 7333, s. XIII–XIV, f. 65vb–68va
Paris, BnF, lat. 7416B, s. XIV, f. 86va–88ra
Paris, BnF, lat. 9335, s. XIII, f. 23vb–25rb

Paris, BnF, lat. 10268, s. XV, f. 133r–138r
Paris, BnF, lat. 14068, s. XV, f. 97v–102v
Paris, BnF, lat. 16211, s. XIII–XIV, f. 104rb–108rb
Paris, BnF, n.a.l. 1893, s. XIV, f. 74rb–76vb
Paris, BS, 595, s. XIV, f. 99ra–102rb
Parma, BP, 984, s. XV, f. 50r–52r
Pommersfelden, GSB, 66 (2640), s. XIII, f. 47va–51rb
Princeton, UL, Garrett 99, s. XIII–XIV, f. 209rb–212vb
Salamanca, BU, 2662, s. XIV, f. 94va–97va
St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 20ra–21va
Vatican, BAV, Barb. lat. 182, s. XV, f. 101rb–101vb
Vatican, BAV, Reg. lat. 1241, s. XV, f. 33r–41r
Vatican, BAV, Reg. lat. 1904, s. XV–XVI, f. 57r–61r
Venice, BNM, lat. VIII.69 (3349), s. XV, f. 14v–21v
Venice, BNM, lat. XIV.165 (4254), s. XIV, f. 49va–53rb
Venice, MCC, cod. Cic. 3747 (2712), s. XV, f. 123ra–125ra
Verona, BC, CCXLIV (215), s. XIII, f. 27vb–29vb
Vienna, ÖNB, 2386, s. XIV, f. 6va–7rb
Vienna, ÖNB, 5145, s. XV, f. 47r–51v
Vienna, ÖNB, 5209, s. XVI, f. 133r–145v
Vienna, ÖNB, 5277, s. XVI, f. 302r–305v
Vienna, ÖNB, 5311, s. XIV, f. 18vb–21ra
Vienna, ÖNB, 5392, s. XV, f. 233r–237r
Vienna, ÖNB, 5498, s. XV, f. 47r–52v
Wolfenbüttel, HAB, 76.1 Aug. 2º (2725), s. XIV, f. 34rb–39vb

C.1.2. Geber, *Liber super Almagesti*

Jābir ibn Aflaḥ's *al-Kitāb fī l-Hay'a* ('Book of Astronomy') — better known in modern scholarship as *Iṣlāḥ al-Majisṭī* ('Correction of the *Almagest*') — translated by Gerard of Cremona. This text is a new edition of the *Almagest* in nine books as follows: trigonometry (Book I); spherical astronomy (II = *Almagest* I–II); Sun (III = *Almagest* III); Moon (IV = *Almagest* IV–V.10); description of an observational instrument, parallaxes, distances and eclipses (V = *Almagest* V.11-VI); fixed stars (VI = *Almagest* VII–VIII); planetary spheres (VII = *Almagest* IX–XI); retrogradation (VIII = *Almagest* XII); and planetary latitudes (IX = *Almagest* XIII). The work includes criticism of Ptolemy on several points (see also C.1.18). Geber's *Liber super Almagesti* gave rise to a supercommentary (C.1.6) and was used as a source in commentaries C.1.3 and C.1.21.

Note Four manuscripts (Dresden, SLUB, Db. 87; Vatican, BAV, Vat. lat. 2059; Vienna, ÖNB, 5392; Vienna, ÖNB, 10905) have a short appendix on spherical trigonometry, which is essentially a commentary on I.13–14: 'Nota in figura tredecima libri primi

Geber quod arcus AG subtensus recto potest esse quarta circuli — In eadem figura potest contingere quod uterque duorum arcuum AG AB sit maior quarta circuli et quod uterque sit minor, sed Geber.' This appendix breaks off mid-sentence but it is found in a longer — and no doubt original — version in three manuscripts which do not have Geber's text (Paris, BnF, lat. 7377B, f. 41r–42v; Madrid, BN, 10010, s. XIII, f. 51v–52r; and Vatican, BAV, Reg. lat. 1268, s. XIV, f. 210r–210v) among a substantial set of notes discussing various texts, including Theodosius's *Spherica*, Geber's *Liber super Almagesti*, Menelaus's *Spherica* and Ametus filius Josephi's *Liber de proportione et proportionalitate* (these notes appear most complete in Paris, BnF, lat. 7377B, f. 38r–60v: 'Hec probationes sunt necessarie in theoremate undecimo partis secunde libri Theodosii de speris…'; and only partial in Madrid, BN, 10010, f. 50v–52v; and Vatican, BAV, Reg. lat. 1268, f. 207v–211v). This appendix is discussed and edited by Lorch, 'Jābir ibn Aflaḥ' (1995), 12–20 (15–18 for the edition, where the longer form includes the three final chapters numbered 14(iii)-14(v)). In Vienna, ÖNB, 5392 and Vienna, ÖNB, 10905, the appendix is followed by an additional chapter on VII.14 ('Nota in figura decima quarta septimi libri Geber quod centrum orbis signorum potest esse infra triangulum — ad dyametrum circuli ABG quod proponebatur') and by further notes on various chapters ('Annotationes in Gebrum. Textus fo. 1. Et de eis. Prima difficultas propter narrationem prachticae et theorice — orbe signorum aliud est solus meridiem ab eo'), as already noted by Lorch, 'Jābir ibn Aflaḥ' (1995), 14.

Text '(Cesena, BCM, Plut. S.XXVII.2) (1ra–3ra) **[PREFACE]** Verba Geber filii Afla Yspalensis. Scientia species habet quarum melior post scientiam fidei — cuius socius non est. Et hinc incipio premittere illa quorum premissio necessaria est. (3ra–19rab) **[BOOK I]** Tractatus primus de propositionibus huius libri vel theorematibus. Et incipiamus exponere intentiones nominum usitatorum in eo, dico ergo polus circuli — per illam quantitatem, et illud est cuius voluimus declarationem. Explicitus est tractatus primus. (19rb–36ra) **[BOOK II]** Initium tractatus secundi de ordinibus specierum huius scientie. Inquit Ptholomeus primum a quo nos oportet incipere in hoc libro est consideratio in summa dispositionis totius terre apud totum celum — et sinus arcus eius est notus, ergo ipse est notus, et illud est quod voluimus. Finit tractatus secundus huius libri. (36ra–43ra) **[BOOK III]** Incipit tractatus tertius huius libri in motu Solis medio. Et postquam declaratum est illud cuius demontratio precessit de istis scientiis particularibus — dies equales ad dies diversos, et illud est quod voluimus declarare. Completus est tractatus 3 huius libri. (43ra–57ra) **[BOOK IV]** Initium tractatus quarti in Luna. Et postquam declaratum est ei totum quod premissum est de esse Solis, possibile est ei inquirere de re Lune — diametri orbis revolutionis, et illud est cuius voluimus declarationem. Finit tractatus quartus huius libri. (57ra–78rb) **[BOOK V]** Initium tractatus quinti in acceptione instrumenti quo scitur diversitas aspectus Lune. Et propterea quod non est quantitas spere terre apud speram orbis Lune — ergo longitudo puncti L ab illo puncto est nota, et illud est cuius voluimus declarationem. Expletus est tractatus quintus huius libri. (78rb–95ra) **[BOOK VI]** Incipit tractatus secundus (!) de stellis fixis. Quod stelle fixe sunt commitantes proprietates suorum locorum cum quantitate spatii unius semper inter se ad invicem. (78va) Inquid Ptolomeus: Et postquam narravimus

in eis que precedunt hunc sermonem illud quod accidit in spera recta — qualiter inveniantur quantitates eorum in fine libri in stellis currentibus secundum rectitudinem. Finitus est tractatus sextus. (95ra–115rb) **[BOOK VII]** Incipit tractatus septimus in stellis <quinque> currentibus. Et quia ostensum fuit ei totum cuius precessit declaratio de esse Solis et Lune et stellarum fixarum — et Martis super sedecim quadraginta Cancri. Expletus est tractatus septimus huius libri. (115rb–123ra) **[BOOK VIII]** incipit tractatus octavus in statione stellarum quinque et earum retrogradatione. Propterea quod vir rememoratus est inventionis stationis stellarum secundum quod non sit ei nisi diversitas — super punctum L positum singulariter. Completa est eius declaratio. Completus est tractatus octavus. (123ra–134ra) **[BOOK IX]** Incipit tractatus nonus in latitudinibus planetarum. Et propterea quod remanserunt de scientia stellarum quinque hesitantium due res — sunt digniores et evanescant et destruantur. Completa est eius declaratio. Completus est tractatus nonus et est ultimus libri. Hunc librum Geber transtulit in Toleto magister Gerardus Cremonensis de Arabico in Latinum.'

Bibl. Delambre 1819, 179–85; M. Steinschneider, *Zur Pseudepigraphischen Literatur insbesondere der geheimen Wissenschaften des Mittelalters aus hebräischen und arabischen Quellen*, Berlin, 1862, 70–73; Wüstenfeld 1877, 64 (no. 24); Steinschneider 1893, II, 543–44; Steinschneider 1904, 20 (no. 42); Carmody 1956, 163–64 (no. 1: 'Elementa astronomica'); R. Lorch, *Jābir ibn Aflaḥ and His Influence in the West*, PhD dissertation, University of Manchester, 1970; R. Lorch, 'The Astronomy of Jābir b. Aflāḥ', *Centaurus* 19 (1975), 85–107 (reprinted in Lorch 1995, VI); R. Lorch, 'The Astronomical Instruments of Jābir ibn Aflaḥ and the Torquetum', *Centaurus* 20 (1976), 11–34 (reprinted in Lorch 1995, XVI); H. Hugonnard Roche, 'La théorie astronomique selon Jabir ibn Aflah', *History of Oriental Astronomy* (*IAU Colloquium 91*), Cambridge, 1987, 207–08; N. M. Swerdlow, 'Jābir ibn Aflaḥ's Interesting Method for Finding the Eccentricities and Direction of the Apsidal Line of a Superior Planet', in *From Deferent to Equant: A Volume of Studies in the History of Science in the Ancient and Medieval Near East in Honor of E. S. Kennedy,* eds D. A. King, G. Saliba, New York, 1987, 501–12; R. Lorch, 'The Manuscripts of Jābir ibn Aflaḥ's Treatise', in Lorch 1995, VII; R. Lorch, 'Jābir ibn Aflaḥ and the Establishment of Trigonometry in the West', in Lorch 1995, VIII; C. Burnett, 'The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century', *Science in Context* 14 (2001), 249–88: 278 (no. 24) (reprinted in Burnett 2009, VII); J. Samsó, 'Ibn al-Haytham and Jābir b. Aflaḥ's Criticism of Ptolemy's Determination of the Parameters of Mercury', *Suhayl* 2 (2001), 199–225 (reprinted in J. Samsó, *Astrometeorología y astrología medievales*, Barcelona, 2008, II, VII); J. Bellver, 'Jābir b. Aflaḥ on the Four-Eclipse Method for Finding the Lunar Period in Anomaly', *Suhayl* 6 (2006), 159–248; J. Bellver, *Críticas a Ptolomeo en el s. XII: El caso del* Iṣlāḥ al-Maŷisṭī *de Ŷābir b. Aflaḥ*, PhD dissertation, Universitat de Barcelona, 2007; J. Bellver, 'Jābir b. Aflaḥ en torno a la inclinación de los eclipses en el horizonte', *AIHS* 57 (2007), 2–25; J. Bellver, 'Jābir b. Aflaḥ on Lunar Eclipses', *Suhayl* 8 (2008), 47–91; J. Bellver, 'On Jābir b. Aflāḥ's Criticism of Ptolemy's *Almagest*', in *A Shared Legacy. Islamic Science East and West. Homage to Professor J. M. Millàs Villacrosa*, eds E. Calvo Labarta et al., Barcelona, 2008, 181–89; J. Bellver, 'Jābir b. Aflaḥ on the Lunar Eccentricity and Prosneusis at Syzygies', *ZGAIW* 18 (2008–2009), 213–39; J. Bellver, 'El lugar del Iṣlāḥ al-Maŷisṭī de Ŷābir b. Aflaḥ en la llamada "Rebelión andalusí contra la astronomía ptolemaica"', *Al-Qanṭara* 30 (2009), 83–136; J. Bellver, 'Jābir b. Aflaḥ on the

Limits of Solar and Lunar Eclipses', *SCIAMVS* 12 (2011), 3–27; J. Bellver, 'Ŷābir b. Aflaḥ en la leyenda de Sevilla', *Archivo Hispalense* 95 (2012), 41–53; Zepeda 2013, 105–28; M. J. Parra, 'A Previously Unnoticed Appendix in the *Iṣlāḥ al-Majisṭī* by Jābir ibn Aflaḥ', *Suhayl* 15 (2016–2017), 113–28; J. Bellver, 'The Arabic Versions of Jābir b. Aflaḥ's *al-Kitāb fī l-Hay'a*', in Juste/van Dalen 2020, 181–99; J. L. Berggren, 'What Every Young Astronomer Needs to Know about Spherical Astronomy: Jābir ibn Aflaḥ's "Preliminaries" to his *Improvement of the Almagest*', in *Instruments – Observations – Theories. Studies in the History of Astronomy in Honor of James Evans*, eds A. Jones, C. Carman, 2020, DOI: 10.5281/zenodo.3928498, 239–59; Y. T. Langermann, 'Revamping Ptolemy's Proof for the Sphericity of the Heavens: Three Arabic Commentaries on *Almagest* I.3', in Juste/van Dalen 2020, 159–80: 167–72; J. Samsó, *On Both Sides of the Strait of Gibraltar. Studies in the History of Medieval Astronomy in the Iberian Peninsula and the Maghrib*, Leiden-Boston, 2020, 508–16; J. Bellver, 'Ptolemy and Jābir b. Aflaḥ on Solar Eclipses', *Suhayl* 21 (2024), 209–340.

Modern ed. None. The Arabic text has been partly edited by Bellver, *Críticas*.

EDS Nürnberg, Johannes Petreius, 1534, pp. 1–146

MSS Cambridge, UL, Mm 2.18 (2313), s. XIV, f. 1ra–49vb
Cesena, BCM, Plut. S.XXVII.2, s. XIII, f. 1ra–134ra
Cracow, BJ, 569, s. XIV, f. 63v–115r
Cracow, BJ, 1921, s. XIV, f. 5r–122v
Cracow, BJ, 1964, s. XV, f. 2r–170r
Darmstadt, HLHB, 1987, s. XV, f. 39r–42r (preface and I.1–8)
Dresden, SLUB, Db. 87, s. XIII, f. 162r–268r
Erfurt, UFB, Dep. Erf. CA 2º 382, s. XV, f. 3r–112r
Florence, BML, San Marco 215, s. XIV–XV, f. 1r–124r
Florence, BNC, Conv. Soppr. A.I.1475, s. XIII–XIV, f. 1ra–70va
Jena, TULB, El. f. 67, s. XIV, f. 93r–139r
London, BL, Harley 625, s. XIV, f. 8r–84v
London, RCP, 383, s. XIII, f. 162ra–178vb (breaks off in Book V)
Lyon, BM, 328, s. XIV, f. 78v–79r (excerpts from Book I)
Madrid, BN, 10006 (*olim* Tol. 98–16), s. XIII, f. 1r–150r
Madrid, BRAH, Cortes 2787, s. XVI, f. 220r–236v (preface and Book I)
Milan, BA, D. 114 inf., s. XVI, f. 59r–69v (breaks off in Book II)
Milan, BA, G. 70 sup., s. XIV, f. 65ra–121ra
Naples, BN, VIII C 35, s. XIV, f. 1ra–44vb
Nürnberg, SB, Cent. III 25, s. XV, f. 96r–130r
Oxford, BL, Ashmole 357, s. XIV–XV, f. 97r–178v (end missing)
Oxford, BL, Digby 178, s. XIV, f. 107ra–108rb (excerpts from Book I)
Oxford, CCC, 233, s. XIV, f. 32r–64r (breaks off in Book II)
Palermo, CSF, 4, s. XV, f. 7v–10r (excerpts from Book I)
Paris, BA, 1035, s. XIII, f. 1ra–79va
Paris, BnF, lat. 7267, s. XIII–XIV, f. 24rb–26rb (excerpts)
Paris, BnF, lat. 7292, s. XV, f. 49r–51r (beginning of Book I)
Paris, BnF, lat. 16198, s. XIV, f. 74r–122v

Philadelphia, UP-KC, Ms. Codex 826 (*olim* Lat. 3), s. XIII, f. 1r–63v (breaks off in Book VII)
Seitenstetten, SB, 53, s. XV, f. 1r–110v
Vatican, BAV, Ott. lat. 2234, s. XIV, f. (2ra–42ra)
Vatican, BAV, Vat. lat. 2059, s. XIV, f. 1r–193v
Vatican, BAV, Vat. lat. 3096, s. XIV, f. 14v–140r
Venice, BNM, lat. VIII.14 (3068), s. XIV, f. 1ra–47ra
Vienna, ÖNB, 5392, s. XVI, f. 1r–225v
Vienna, ÖNB, 10905, s. XVI, f. 1r–146v

C.1.3. Gerard of Cremona, *Notule Almagesti*

A lemmatic commentary on the complete *Almagest* written by Gerard of Cremona on the basis of his own translation of the text (A.1.2). This work was previously known as the 'Vatican Commentary' (Zepeda), but Stefan Georges has demonstrated that the author was in fact Gerard of Cremona himself. In the three main manuscripts, the 'opening' of the text is somewhat abrupt and consists of a commentary on sections of Book I of Geber's *Liber super Almagesti* (C.1.2) — a text also translated by Gerard of Cremona —, but it is unclear whether this opening was originally meant to be part of the text. The commentary otherwise starts with *Almagest* I.2. The text is followed by additional notes discussing matters pertaining to the various books (including I.1). These additional notes break off abruptly in all three manuscripts and appear to be most complete in MS Vatican, BAV, Vat. lat. 6795, where they amount to 18 chapters. Sections of the *Notule Almagesti* occur as glosses to the *Almagest* in Gerard of Cremona's translation in the margins of at least five manuscripts: Berlin, SBPK, lat. fol. 753; Florence, BML, Plut. 89 sup. 57; Oxford, NC, 281; Paris, BnF, lat. 16200; and Vatican, BAV, Pal. lat. 1365. The *Notule Almagesti* was revamped in England in the 1230s (C.1.5).

Text '(Madrid, BRAH, 97) (1r–2r) [**OPENING**] Quod perpendicularis cadens ex extremitate arcus super diametrum productam ab extremitate eius secunda sit sinus eius — nobis tunc nisi notitia anguli qui sequitur angulum quesitum. (2r–12v) [**BOOK I**] In capitulo secundo Almagesti, sciendum est universaliora esse preponenda aliis et sensibiliora particularia minus sensibilibus — sunt descripti super duos polos orbis equatoris diei. (12v–20r) [**BOOK II**] Tractatus secundus libri Almagesti. Hic queritur quare Tholomeus hic distinctionem fecerit tractatus cuius rei duplex est causa — quicquid est usque ad finem planum est. (20r–34r) [**BOOK III**] Tractatus tertius. Postquam declaravimus etc. Vidimus oportunum esse ut illud quod ibi dictum est sequatur — ad quod declarandum talem subicimus figuram. (34r–48r) [**BOOK IV**] Incipit dictio Almagesti quarta. Capitulum primum ex quibus considerationibus oporteat esse investigationem a Luna — secundum orbem revolutionis eadem invenitur proportio in omnibus illis eclipsibus. (48r–73r) [**BOOK V**] Dictio quinta Almagesti libri. Capitulum primum de artificio, id est quomodo fiat instrumentum armillarum — ab orbe signorum et Luna in altera. Aliud vero totum planum est. (73r–90v) [**BOOK VI**] Dictio

sexta Almagesti tredecim continens capitula. In hoc dictione intendit Tholomeus tractare de eclipsibus — in qua sunt septem climata in secunda dictione Almagesti existit. (90v–94r) [**BOOK VII**] Dictio septima Almagesti et reliqua totum quod continetur in capitulis istis facile est — et in eo quod non est in forma Capricorni sexies. (94r–98v) [**BOOK VIII**] Capitulum secundum de modo, id est quomodo sit orbis lacteus qui nominatur Almaierati — secundum viginti octo mansiones. (98v–108v) [**BOOK IX**] Dictio nona in qua sunt undecimi capitula. In istis capitulis, hic nichil est dicendum — id est in parte Piscis in qua fuit Sol totum quod sequitur usque ad finem capituli planum est. (108v–116r) [**BOOK X**] Dictio decima Almagesti in qua sunt decem capitula. Capitulum primum in declaratione etc. Illud quod dicitur in istis capitulis exponetur in principio eiusque capituli — totum vero quod sequitur usque ad finem huius capituli planum est et per se patet. (116r–121r) [**BOOK XI**] Dictio undecima libri Tholomei qui dicitur Almagesti in qua sunt duodecim capitula. Capitulum primum etc. Qualiter capitula ista sint intelligenda in principio eiusque capitulorum dicetur — Quod vero sequitur usque ad finem huius capituli planum est. Expleta est dictio Almagesti undecima. (121r–127v) [**BOOK XII**] Dictio Almagesti duodecima incipit in qua sunt 9 capitula. Capitulum primum etc. Qualiter capitula ista — sicut ibi ubi dicit: In stella autem Mercurii ponam causa allev<iationis>. (127v–138r) [**BOOK XIII**] Incipit dictio tertiadecima Almagesti. In hac dictione ponuntur undecim capitula — similiter capitulum istud planum est et nichil est in eo dicendum. Finite sunt notule Almagesti. (138r–138v) [**ADDITIONAL NOTES**] Sciendum est quod in secundo libro est quiddam de proportionibus quod non est ibi bene enucleatur — esse est sine motu et non.'

Bibl. Zepeda 2013, 222–59; Georges (forthcoming).

Modern ed. None, except I.12-II.12, ed. Zepeda, 573–636 (from the two Vatican MSS).

EDS ---

MSS Madrid, BRAH, 97, s. XIII, f. 1r–138v
Oxford, BL, Rawlinson D.893, s. XIII, f. 67ra–67vb (fragment IV.3–5)
Vatican, BAV, Vat. lat. 3100, s. XII–XIII, f. 1ra–109ra
Vatican, BAV, Vat. lat. 6795, s. XIII, f. 1ra–97vb (missing end of Book V to beginning of Book VII)

C.1.4. *Almagesti minor*

The *Almagesti minor*, also known as *Almagestum parvum*, is a summary of the first six books of the *Almagest*, whose author reorganised the content after the model of Euclid's *Elements* and added proofs and further material from Albategni [al-Battānī] and others. The source text for the *Almagest* is the translation of Gerard of Cremona (A.1.2). In the manuscripts, the text is anonymous or variously attributed to Albategni, Geber [Jābir ibn Aflaḥ], Campanus of Novara, Albertus Magnus and Thomas Aquinas. Zepeda (2018, 11–18) rejects all these ascriptions and argues that a better candidate is Walter of Lille, to whom Richard of Fournival attributes the text in his *Biblionomia* written *c.* 1250 ('Galterus de Insulla', see MS →Paris, BnF, lat.

16557, under Note). Pursuing the investigation further, Stefan Georges confirmed this authorship, identified Walter of Lille with the poet Walter of Châtillon and argued that the text was composed at the court of Henry II of England, probably at Winchester, *c.* 1170. The *Almagesti minor* gave rise to supercommentaries C.1.7, C.1.12 and C.1.24, and was used as a source in commentaries C.1.8, C.1.16 and C.1.21.

Note In addition to the manuscripts listed below, sections of the *Almagesti minor* appear as glosses to the *Almagest* in MS Cracow, BJ, 619.

Text '(ed. Zepeda) **[PREFACE]** Omnium recte philosophantium verisimilibus coniecturis et credibilibus argumentis et firmissimis rationibus non solum verisimilibus et credibilibus argumentis sed et firmissimis rationibus deprehensum est formam celi spericam — Que cum ita sint superest ut propositum aggrediamur. **[BOOK I]** Data circuli diametro latera decagoni, pentagoni, exagoni, tetragoni, atque trianguli omnium ab eodem circulo — et ab orizonte recte spere transierit. **[BOOK II]** Orizon declivis est cui polus elevatur. Spera declivis est vel obliqua — aspectus Lune sine cuius notitia solares eclipses sciri est impossibile. **[BOOK III]** Communia quedam premittenda sunt quia hic modus demonstrationi est aptior — in tempore considerationis tardier vel celerior diversitas. Explicit liber tertius continens universam de motu Solis doctrinam. **[BOOK IV]** Incipit quartus de motu Lune. Terram ad Lune distantiam sensibilem quantitatem habere — et erit motus iste contra ordinem signorum. Explicit liber quartus. **[BOOK V]** Incipit quintus. Locus stelle secundum longitudinem est punctum circuli signorum — quam propter solares eclipses querimus. **[BOOK VI]** Superlatio Lune ad datum tempus est id quod relinquitur cum diversus motus — Et inclinationes quidem tenebrarum sic se habent. Explicit hic sextus liber et sexti glosa textus.'

Bibl. Carmody 1956, 164 (no. 2); A. Birkenmajer, 'La bibliothèque de Richard de Fournival, poète et érudit français du début du XIII^{e} siècle, et son sort ultérieur', in Birkenmajer 1970, 117–210: 142–47; M. Pereira, 'Campano da Novara autore dell'*Almagestum parvum*', *Studi Medievali* 19 (1978), 769–76; Lorch 1992; Zepeda 2013, 166–83; H. Zepeda, 'Euclidization in the *Almagestum parvum*', *Early Science and Medicine* 20 (2015), 48–76; Zepeda 2018; N. M. Swerdlow, 'The *Almagest* in the Manner of Euclid', *JHA* 52 (2021), 104–07; Georges (forthcoming).

Modern ed. Critical edition, translation and commentary by Zepeda 2018.

EDS ---

MSS Basel, UB, F.II.33, s. XIV, f. 221r–244r
Berlin, SBPK, lat. qu. 510, s. XIII, f. 114r–175v
Berlin, SBPK, lat. qu. 526, s. XIII–XIV, f. 35v (excerpt V.21)
Cambridge, UL, Ee 3.61 (1017), s. XVI, f. 55r–55v (excerpts V.19, 21 and 25)
Cracow, BJ, 1924, s. XIII, pp. 9–163
Darmstadt, HLHB, 1987, s. XV, f. 1r–37v (I–V.9, with additions f. 37v–38v)
Dresden, SLUB, Db. 87, s. XIII, f. 104r–161v (end missing)
Erfurt, UFB, Dep. Erf. CA 2º 375, s. XIV, f. (85r–103r) (excerpts)
Erfurt, UFB, Dep. Erf. CA 2º 383, s. XIV, f. 1r–52v

Erfurt, UFB, Dep. Erf. CA 4º 356, s. XV, f. 1r–101v (end missing)
Florence, BML, Conv. Soppr. 414, s. XIII, f. 1r–45r
Florence, BML, Plut. 89 sup. 57, s. XIII, f. (8v–88v) (excerpts)
Jena, TULB, El. f. 73, s. XVI, f. 182ra–182vb (excerpt V.1)
Leipzig, UB, 1475, s. XV, f. 2r–51v
London, BL, Harley 625, s. XIV, f. 85r–123r and 132r–136v
Memmingen, SA, 2º 2,33, s. XV, f. 152r–198v
Milan, BA, H. 75 sup., s. XIII–XIV, f. 67ra–68rb (excerpts V.1, I.15 and V.11)
Munich, BSB, Clm 56, s. XV, f. 3r–120r
Munich, BSB, Clm 10661, s. XV, f. 171r–172r (excerpts V.1, I.15 and V.11)
Nürnberg, SB, Cent. VI 12, s. XV, f. 1r–66v
Oxford, BL, Ashmole 345, s. XIV, f. 21r–22r (excerpt V.1)
Oxford, BL, Canon. Misc. 61, s. XV, f. 9r–11r (excerpts V.1, I.15 and V.11)
Oxford, NC, 281, s. XIII, f. (28r–77r) (excerpts)
Paris, BnF, lat. 7295, s. XV, f. 77r–77v (excerpts V.1 and I.15)
Paris, BnF, lat. 7399, s. XIII, f. 15v–93v
Paris, BnF, lat. 16200, s. XIII, f. (5ra–96ra)
Paris, BnF, lat. 16657, s. XIII, f. 82v–132r
Paris, BS, 595, s. XIV, f. 62ra–63vb (excerpts V.1, I.15 and V.11)
Prague, NKCR, V.A.11 (802), s. XV, f. 1r–59v
Salamanca, BU, 2662, s. XIV, f. 49va–50va (excerpts V.1, I.15 and V.11)
Toledo, ABC, 98-22, s. XIII, f. 67ra–80vb
Vatican, BAV, Reg. lat. 1012, s. XIII–XIV, f. 1r–73r
Vatican, BAV, Reg. lat. 1261, s. XIII, f. 1r–49r
Vienna, ÖNB, 5258, s. XV, f. 75r–77r (excerpts V.1, I.15 and V.11)
Vienna, ÖNB, 5266, s. XV, f. 176ra–228va
Vienna, ÖNB, 5273, s. XVI, f. 35v–90v
Vienna, ÖNB, 5292, s. XVI, f. 1r–65v
Vienna, ÖNB, 5303, s. XVI, f. 256r–259r (excerpts I.15 and V.1)
Vienna, ÖNB, 5418, s. XV, f. 184r–189v (excerpts I.15 and V.1)

C.1.5. *Notule Almagesti*

A lemmatic commentary on the complete *Almagest* in Gerard of Cremona's translation (A.1.2) taking as a starting point and borrowing largely from Gerard's own *Notule Almagesti* (C.1.3), but also from the *Almagest* itself and other sources. Like Gerard's *Notule Almagesti*, this commentary contains a curious opening, made of notes added by the scribe apparently at a later stage and consisting of explanations of the preface and of other sections of Book I of the *Almagest*. The commentary otherwise starts with *Almagest* I.2 and with the same incipit as in Gerard's *Notule*. The only known manuscript, which is likely to be the autograph, was copied in England in the first half of the thirteenth century, probably in or soon after 1234.

Text '(Paris, BnF, lat. 7266) [**opening**] Ultime hominis promissiones, id est quod ultimo promittitur homini... Bonum fuit scire etc. (3ra–5vb) [**book i**] <Notul?>e Almagesti. Sciendum est universaliora esse preponenda aliis et particularia sensibiliora minus sensibilibus — ad 3 decenas ...ietis (?) et illa de aliis. (5vb–10ra) [**book ii**] Et postea que narravimus etc. In primo libro tractavit de illis que fiunt in celo — sicut de horis et elevationibus et reliquis. (10ra–16rb) [**book iii**] Postquam declaravimus. Ea vero in quibus etc. Abrachis cum computabat annum a motu Solis — unus qui moveat augem et alter ipsum. (16rb–19ra) [**book iv**] Iam narravimus. In hoc capitulo docet Ptolomeus que sint illa ex quibus inveniuntur loca Lune — de errore Abrachis credendum est ei quod in libro eius illa invenit. (19ra–26va) [**book v**] Que vero accidunt etc. Sed in divisione etc., id est in figuris que proveniunt ex divisione motuum — ab orbe signorum et Luna in altera. (26vb–32ra) [**book vi**] Postquam sequitur etc. Et revolutionum. Ut in Sole et Luna eccentrici et diversitatis — ubi tractatur de...is (?) eclipticis. (32ra–33ra) [**book vii**] Declaratur autem etc. Ad partem successionis signorum, id est ab oriente ad occidentem — id est fecerimus quod illud latus revolvatur. (33ra–33va) [**book viii**] Et postquam iam etc. Aut o ... (?) etc. Omnia ista considerantur per circulos transeuntes — principium visionis non esset c... (?). (33va–36ra) [**book ix**] Quantum fuit etc. Per medium Solem, scilicet posuerit Solem medium — potest equari omni hora. (36ra–38rb) [**book x**] Radices secundum quas. Et fuit stella veneris etc. Sciendum quod stella ista non est in orbe signorum — scilicet 109 partes partes et 42 minuta. (38rb–40va) [**book xi**] Et quia iam etc. Extremitas noctis. Habitudines nominatur extremitas noctis — scilicet totum angulum AEK. (40va–42va) [**book xii**] Postquam demonstrate sunt etc. Sciendum quod auctoritates huius scientie viderunt — secundum proportionem 4 numerorum ut sepe dictum est. (43ra–46vb) [**book xiii**] Et quia remanserunt etc. Quoniam non accidunt. Q. d. ... (?) in nono tractatu posui 3 circulos — est 99 partes et fac more solito. Ex radicibus, id est principiis. Expliciunt notule Almagesti. (47ra–47vb) [**additional notes**] Sciendum est quod in secundo libro est quiddam quod non est ibi bene enucleatur — operando ut in proximo.'

Bibl. Zepeda 2013, 320 n. 619; Georges (forthcoming).

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7266, s. XIII, f. 1v–47vb

C.1.6. ⟨*Commentum in Gebri Librum super Almagesti*⟩

A commentary on Geber's *Liber super Almagesti* (C.1.2) by an anonymous author who also used the *Almagest* in Gerard's of Cremona's translation (A.1.2) and the *Almagesti minor* (C.1.4). In the only known manuscript (Paris, BnF, lat. 7406), which is probably not the author's copy, the scribe stopped copying in the middle of the first chapter of Book IV. The manuscript was copied in the second half of the thirteenth century (*c.* 1273?) in some university, probably in Paris or in England.

Text '(Paris, BnF, lat. 7406) (114ra) [**introduction**] Geber in libro 30 figurarum ad probationem sui propositi commodius habendam quedam premittit. Prima autem eius

propositio eadem est prime Theodosii in primo. Secunda autem proponit sensum quinque propositionum primi libri Theodosii... (114ra–120vb) [**BOOK I**] Omnis circulus signatus super speram a cuius polo egredientis ad circumferenciam linee quadratus est equalis medietati quadrati dyametri spere est ex magnis eiusdem spere. Sit enim spera ABZ circulis in ea signatus BGD — quod fuit propositum ultime propositionis primi libri Geber. Explicit primus liber Geber. (121ra–128rb) [**BOOK II**] Qualiter super instrumentum cuius preparatio ad inventionem — valet duos rectos, habes ergo quesiti notitiam. Explicit liber secundus Geber. (128rb–135rb) [**BOOK III**] Incipit liber tertius eiusdem. (128va) Anni quantitatem verisimiliter invenire. Annus est spacium in quo Sol ab uno puncto — dies equales ad dies diversos et illud voluimus declarare. Explicit tertius liber Geber. (135rb–137vb) [**BOOK IV**] Incipit liber quartus eiusdem. Verus Lune locus per lunarem eclypsim quam per solarem — et fecit currere illud secundum semitam indagationis subtilis.'

Bibl. R. Lorch, 'The Astronomy of Jābir b. Aflāḥ', *Centaurus* 19 (1975), 85–107: 102–03 (reprinted in Lorch 1995, VI); R. Lorch, 'Jābir ibn Aflaḥ and the Establishment of Trigonometry in the West', in Lorch 1995, VIII, 13, 20–29 and 35; Zepeda 2018, 99–100.

Modern ed. Excerpts (I.13–15) have been edited by Lorch, 'Jābir ibn Aflaḥ', 21–28.

MS Paris, BnF, lat. 7406, s. XIII, f. 114ra–137vb

C.1.7. ⟨*Commentum in Almagesti minorem*⟩

An anonymous commentary on the *Almagesti minor* (C.1.4) with reworked proofs. The only known manuscript was copied around 1300, probably in Paris. As it stands in this copy, the work is incomplete, ending abruptly in II.35 due to missing folia.

Text '(Florence, BR, 885) Almagesti [title in upper margin]. Omnium recte phantium (!) verisimilibus coniecturis etc. [followed by about 15 lines left blank]. Data circuli diametro latera decagoni, pentagoni, exagoni... Sit circulus ABG cuius diametri ADG centri D — sit medians celum notum et T oriens quod erit notum per 18^{am} huius secundi. A sit...'

Bibl. Lorch 1992, 419; Zepeda 2018, 88–89.

Modern ed. ---

EDS ---

MSS Florence, BR, 885, s. XIII–XIV, f. 109r–123v

C.1.8. Simon Bredon, *Commentum super Almagesti*

A commentary on *Almagest* I–III, written by Simon Bredon in Oxford probably *c.* 1340. The author used Gerard of Cremona's translation of the *Almagest* (A.1.2) and the *Almagesti minor* (C.1.4). None of the three extant manuscripts is complete and it is unclear whether a fuller commentary once existed. MS Oxford, BL, Digby 168 is Simon's autograph [Plate 7], but this copy is truncated, missing I.3–12 (due to three lost

folia) and the first chapters of Book II (due to two lost folia). MS Oxford, BL, Digby 178 opens with I.9 and MS Cambridge, UL, Ee 3.61 only preserves an excerpt from Book I.

Text '(Oxford, BL, Digby 168) Edicio Bredonis de Almagesti. (21r) **[PREFACE]** Quoniam princeps nomine Albuguafe in libro suo quem scientiarum electionem et verborum nominavit — et motuum qui sunt in celo inscripsit. (21r–23v) **[BOOK I]** In hoc autem libro sunt 13 distinctiones... Huc usque seriem (?) textus inserui 63 amplius nequaquam textui 63 autoris — totum quod intendebam ultimum propositum Tholomei. Et terminatur hic sententia primi libri. (24r–30v) **[BOOK II]** ... [beginning missing] — ad primum Capricorni 200.12.31 et ad primum Arietis 200.92.20. (30v–39r) **[BOOK III]** Capitulum primum de scientia quantitatis longitudinis anni et numero dierum eius... (31r) Post declarationem premissorum considerare convenit secundum Tholomeum de Sole et Luna et eorum motibus — erunt qui provenerint anni Nabugodonosor, qui sunt per quos intrabis in hunc librum.'

'(Oxford, BL, Digby 178) (39r–41v) **[BOOK I, CHS 9–11]** Arcus dicitur pars circumferencie circuli sive medietati talis circumferentie — Et hec pauca sufficiunt dicta pro sinus et arcus aliquali notitia. Explicit. (42r–47r) **[BOOK I, CHS 12–14]** Commentum magistri Symonis Bredon super aliquas demonstrationes Almagesti. Nunc superest ostendere quanta sit maxima declinatio ecliptice ab equinocciali — totum quod intendebam ultimum propositum Ptholomei. Et terminatur hic sententia primi libri. (47r–65r) **[BOOK II]** Arcum diei maximi seu minimi per notam poli altitudinem reperire — ad primum Capricorni 200.12.31 et ad primum Arietis 200.92.20. (65r–86v) **[BOOK III]** Capitulum primum de scientia quantitatis longitudinis anni et numero dierum eius... (65v) Post declarationem premissorum considerare convenit secundum Ptholomeum de Sole et Luna et eorum motibus — erunt qui provenerint anni Nabugodonosor, qui sunt per quos intrabis in hunc librum.'

Bibl. C. H. Talbot, 'Simon Bredon (*c.* 1300–1372): Physician, Mathematician and Astronomer', *BJHS* 1 (1962), 19–30: 21 n. 8 and 26–28; R. Lorch, 'Jābir ibn Aflaḥ and the Establishment of Trigonometry in the West', in Lorch 1995, VIII, 30–31; K. Snedegar, 'The Works and Days of Simon Bredon, a Fourteenth-Century Astronomer and Physician', in Nauta/Vanderjagt 1999, 285–309: 295–98; Zepeda 2013, 282–301; Zepeda 2018, 95–98.

Modern ed. Books I–II are edited by Zepeda 2013, 637–86, from all three MSS. Chs III.22–24 are edited by L. Miolo, S. Zieme, 'Lewis Caerleon and the Equation of Time: Tabular Astronomical Practices in Late Fifteenth-Century England', *AHES* 78 (2024), 183–243: 229–39 (from the two Digby MSS).

EDS ---

MSS Cambridge, UL, Ee 3.61 (1017), s. XV, f. 43r–45r (excerpt)
Oxford, BL, Digby 168, s. XIV, f. 21r–39r
Oxford, BL, Digby 178, s. XV, f. 39r–86v

C.1.9. Johannes de Wasia, ⟨*Annotationes in Almagesti*⟩

Notes and figures dealing mainly with the first two books of the *Almagest* and related material in great disorder. The notes open with *Almagest* II.12. The unique

manuscript was copied by Johannes de Wasia (d. 1395) [Plate 9] and the confused organisation of the material, as well as the corrections and marginal annotations in his hand, suggests that he was also the author. Johannes de Wasia (Waes, present-day Belgium) was active at the University of Paris at least from 1369 to 1383, then became parish priest at St Walburga in Bruges, canon at St Andrew of Cologne, and the first dean of the faculty of theology of the University of Cologne in 1394. The *Annotationes in Almagesti* was probably put together in Paris in or shortly after 1369. In the manuscript, the work follows Henry of Langenstein's *Questio de cometa* (f. 34r–47r), composed in Paris in 1368, and Johannes de Wasia's own *Tractatus de proportionibus* (f. 48r–55r), which is an expanded version of his *Compendium de proportionibus* written in 1369 (Erfurt, UFB, Dep. Erf. CA 4º 325, s. XIV, f. 47r–51v). Johannes de Wasia is also the author of a table of mean motions of the planets for the meridian of Paris in 1369 (Erfurt, UFB, Dep. Erf. CA 4º 362, s. XIV, f. 13v–14r: 'Tabella radicum mediorum motuum subscriptorum ad annum domini 1369 completa ad meridianum Parisiensem per Iohannem de Wasia calculata') and of undated *Questiones de spera* (Erfurt, UFB, Dep. Erf. CA 4º 298, s. XIV, f. 31r–58r). For further Ptolemaic works possibly by Johannes de Wasia, see C.1.10–11.

Text '(Erfurt, UFB, Dep. Erf. CA 4º 349) Pro 12º 2ᵉ dictionis. Probatur in hac figura <quod> duo anguli — Dato quocumque puncto zodiaco angulum meridiani cum ecliptica invenire, si versus septentrionem.'

Bibl. The *Annotationes in Almagesti* do not appear to have been discussed in the literature. On Johannes de Wasia and his works, see K. De Cock, A. Pattin, 'Joannes de Wasia (†1395), wijsgeer, theoloog en eerste deken van de theologische faculteit van de universiteit te Keulen', *Tijdschrift voor Filosofie* 35 (1973), 345–51; A. Pattin, 'Les Eléments d'Euclide source du *De proportionibus* de Jean de Waes (†1395)', in *Tradition et traduction. Les textes philosophiques et scientifiques grecs au Moyen Âge latin. Hommage à Fernand Bossier*, eds R. Beyers, J. Brams, D. Sacré, K. Verrycken, Leuven, 1999, 305–21; L. Cioca, 'Johannes de Wasia and His Sentences Commentary', *Philobiblon. Transylvanian Journal of Multidisciplinary Research in Humanities* 22 (2017), 149–64.

Modern ed. *---*

EDS *---*

MSS Erfurt, UFB, Dep. Erf. CA 4º 349, s. XIV, f. 66r–74v and 75v–77v

C.1.10. Johannes de Wasia (?), *Commentum super Almagesti Ptholomei*

This work, previously known as the 'Erfurt Commentary' (Zepeda), consists of a commentary on and a reworking of *Almagest* I.9-II.11 in Gerard of Cremona's translation (A.1.2) arranged by propositions and proofs. Enunciations are close

to those of the *Almagesti minor* (C.1.4), but the rest of the text differs. All four manuscripts date from the second half of the fourteenth century and the earliest of these seems to be MS Erfurt, UFB, Dep. Erf. CA 2º 375, copied by Johannes de Wasia (see C.1.9) probably in Paris in or after 1369. Zepeda (2018, 91) suspects that the author 'did not use the *Almagesti minor* itself, but a manuscript of the *Almagest* with some excerpts of it in the margins.' This matches exactly what we find in MS Erfurt, UFB, Dep. Erf. CA 2º 375, where the commentary is preceded (f. 85r–88r and 93r–112v) by a copy of *Almagest* I.9-II.12 with excerpts of the *Almagesti minor* added in the margins, all in Johannes de Wasia's hand. This manuscript is therefore likely to be the original copy (or, at least, very close to the original copy), in which case Johannes de Wasia would be a plausible author for the commentary, something which also makes sense in view of the fact that Johannes de Wasia's *Annotationes in Almagesti* (C.1.9) open with *Almagest* II.12. MS Dijon, BM, 441 contains an expanded version of the commentary, including a preface ('Quelibet circumferentia circuli secundum astrologos...') and a continuation for *Almagest* II.12–13, which is perhaps the work of Jean Fusoris (*c.* 1365–1436). In MS Erfurt, UFB, Dep. Erf. CA 2º 375, the text is followed by a supercommentary (C.1.11) on f. 127r–129v.

Text '(Erfurt, UFB, Dep. Erf. CA 2º 375) Commentum super Almagesti Ptholomei. Data circuli dyametro latera decagoni, penthagoni, hexagoni, tetragoni et trianguli omni ab eodem circulo circumscriptorum invenire... Pro probacione istius proposicionis supponitur quod linea divisa — erit angulus DEA notus orientalis super orizontem, quod est propositum.'

Bibl. Lorch 1992, 421–22; Zepeda 2013, 184–221; Zepeda 2018, 89–91.

Modern ed. Partial critical edition in Zepeda 2013, 493–572 (from all four manuscripts).

EDS ---

MSS Dijon, BM, 441 (266), s. XIV, f. 212r–233v
Erfurt, UFB, Dep. Erf. CA 2º 375, s. XIV, f. 113r–126v
Erfurt, UFB, Dep. Erf. CA 2º 393, s. XIV, f. 63ra–80vb
Vatican, BAV, Pal. lat. 1380, s. XIV, f. 116r–138v (incomplete)

C.1.11. Johannes de Wasia (?), *Commenta super Almagesti Ptholomei*

This short text, dealing with various sections of Book I of the *Almagest*, appears to be for the most part a supercommentary on C.1.10. The only known manuscript was copied by Johannes de Wasia, probably in Paris in or shortly after 1369.

Text '(Erfurt, UFB, Dep. Erf. CA 2º 375) Commenta super Almagesti Ptholomei. Data circuli dyametro etc. C dividet GD in 2 equalia — patet composicio tabularum ascensionum in spera recta. Explicit prima dictio Almagesti cum notabilibus et regulis ad intellectum eius necessariis commentata.'

Bibl. Lorch 1992, 421–22; Zepeda 2013, 185; Zepeda 2018, 90.

Modern ed. ---

EDS ---

MSS Erfurt, UFB, Dep. Erf. CA 2º 375, s. XIV, f. 127r–129v

C.1.12. Bernhardus Chorner, *Almagesti Ptolomei abreviatum*

A commentary on the first two books of the *Almagesti minor* (C.1.4), with revised proofs and added material from and references to the *Almagest*, Euclid's *Elements*, Campanus of Novara's *De figura sectore* and Theodosius's *Spherica*. The text begins with ch. I.3, due to one missing folio in the only known manuscript. This manuscript was copied in and/or around 1410, probably at the University of Prague and possibly by Johannes Andree Schindel. The attribution 'Bernhardi Chorner quondam Iacobi de Tyrnavia [Trnava, Slovakia]' is unclear, but the second part of the name may refer to a 'Iacobus Capellanus de Tyrna', who matriculated in 1395 at the University of Vienna (Zepeda, 100 and n. 98).

Text '(Prague, APH, L. XLVIII) Sint AB et AG note. Essent quoque per secundum corollarium — sicque patet correlarium. Explicit Almagesti Ptolomey abreviatum Bernhardi Chorner quondam Iacobi de Tyrnavia.'

Bibl. Zepeda 2018, 100–03.

Modern ed. ---

EDS ---

MSS Prague, APH, L. XLVIII (1292), s. XV, f. 60r–69v

C.1.13. Johannes Borotin (?), *Expositio Thebiti Bencorath in precognicionibus Almagesti*

This 'expositio' on Thebit Bencora's *De hiis que indigent expositione antequam legatur Almagesti* (C.1.1) is preserved in the personal notebook of Johannes Borotin (1378-after 1458) [Plate 11], who received his master of arts at the University of Prague in 1410, was for some time (at least in 1412) rector of the school of Zderaz in the outskirts of Prague, then, from 1413 onwards, professor in the faculty of arts at the University of Prague. In the colophon, Borotin says that he wrote ('scripsit') it on Sunday 20 November 1412 in Zderaz and that Johannes Andree Schindel began lecturing on the *Almagest* in Prague on the same day. Borotin was to attend these lectures later, in January and February 1413 (see C.1.14), and the present *Expositio* was meant, in all likelihood, as an introduction to them. The exact nature and authorship of this *Expositio* are, however, unclear. It may have consisted

of lectures given by Schindel (so Burnett, 14; Lička, 269). At the same time, the colophon does not explicitly involve Schindel with the *Expositio* and even seems to imply that Schindel was in Prague when Borotin finished writing or copying it in Zderaz. Moreover, Borotin was mistaken about Schindel's whereabouts on that day, for Schindel had begun lecturing on the *Almagest* over a week before, on 11 November 1412 (see C.1.14).

Text '(Prague, APH, O. I) Exposicio Thebiti Bencorath in precognicionibus Almagesti. Nota: Equator diei idem est quod equinoctialis circulus — tempore Sol redit ad suam (?) coniunccionem. De istis melius videbis circa theoricam planetarum et (?) practicabis si vis. Explicit exposicio Thebit precognicionum Almagesti anno domini 1412, feria prima sive die dominico 12° kal. Decembris. Eodem die Magister Ioannes Andree, doctor medicine, incepit legere librum magnum Ptolomei Almagesti in Praga. Mitte, mi domine, auxilium de sancto et de Syon, tuere me ut perficere possim quod proposui, quia volo. Me Borotyn scripsit in Zderaz dum sibi vixit anno milleno quadringento duodeno, quo iam complebat quatuor triginta Decembres.'

Bibl. On Johannes Borotin, see P. Spunar, *Repertorium auctorum Bohemorum provectum idearum post Universitatem Pragensem conditam illustrans*, 2 vols, Wrocław-Warszawa, 1985–1995 [Studia Copernicana, XXV and XXXV], I, 140–45; C. Burnett, 'Teaching the Science of the Stars in Prague University in the Early Fifteenth Century: Master Johannes Borotin', *Aither. Journal for the Study of Greek and Latin Philosophical Traditions* 2 (2014), 9–50; L. Lička, 'Studying and Discussing Optics at the Prague Faculty of Arts: Optical Topics and Authorities in Prague Quodlibets and John of Borotín's *Quaestio* on Extramission', in *Studying the Arts in Late Medieval Bohemia: Production, Reception and Transmission of Knowledge*, ed. O. Pavlíček, Turnhout, 2021, 251–303.

Modern ed. ---

EDS ---

MSS Prague, APH, O. I (1585), s. XV, f. 120r–129r

C.1.14. Johannes Andree Schindel, ⟨*Lectiones in Almagesti*⟩

Lectures on the complete *Almagest* delivered by Johannes Andree Schindel at the University of Prague from 1412 to 1418. These lectures are only partially preserved in the notebook of Johannes Borotin (see C.1.13) [Plate 11], where they appear in disorder and interrupted with blank pages, covering altogether *Almagest* I.13–14, II.1, II.5–7, I.9 and I.12. The beginning (I.13) is dated 28 January 1413 and ch. II.5 was completed on 28 February 1413 (see MS entry). Borotin missed the first lectures presumably because he was unable to attend them (see C.1.13). Further information on Schindel's lectures can be gleaned from the very copy of the *Almagest* he used in his teaching, which turns out to be extant as MS →Cracow, BJ, 619 [Plate 10]. Below the colophon of the *Almagest* in that manuscript (f. 272r), Schindel added a note saying that he had begun lecturing on 11 November 1412 (not on 20 November, as in

Borotin's account, see C.1.13) and finished on 10 July 1418. The date 11 November is definitely correct, for Schindel also cast the horoscope of this event (f. Iv), where the positions of the planets and of the ascendant are indeed correct for 11 November 1412 at noon in Prague. It took Schindel more than five and a half years to read the complete *Almagest*, which he did on feast days, and he appears to have spent more time on the first books, judging from a note added in the margin of f. 120r, where he says that he completed Book V on 4 March 1417. In the note added below the colophon, Schindel also gives the names of his most zealous students ('leccionum auditores plus ceteris solliciti'), namely Master Anthonius de Luna, then dean of the faculty of arts, Master Nicolaus de Stoyczin, Master Allexius de Polonia and Stephanus de Sossniessowicz, bachelor of arts and medicine. Johannes Borotin does not feature in this list, but both men were to stay in contact over the years, for, in 1444, Schindel attended Borotin's lecture on Ptolemy's *Quadripartitum* (see MS Cracow, BJ, 593).

Text '(Prague, APH, O. I) 1413 5^{o} kal. Februarii [upper margin, hand of the scribe]. Et postquam premisimus hoc capitulum etc. In hoc capitulo vult Ptolomeus docere… (141r) Incipit secundi libri Almagesti Ptolomei — Ex eo autem ibi est 15^{a} demonstracio et est quasi conversa precedentis.'

Bibl. P. Spunar, *Repertorium auctorum Bohemorum provectum idearum post Universitatem Pragensem conditam illustrans*, 2 vols, Wrocław-Warszawa, 1985–1995 [Studia Copernicana, XXV and XXXV], I, 134–35 (no. 363); Zepeda 2018, 103–04. On Johannes Andree Schindel (Jan Šindl), see also D. B. Durand, *The Vienna-Klosterneuburg Map Corpus of the Fifteenth Century*, Leiden, 1952, 41–44; A. Šolcová, 'Mistr Jan Šindel — pravděpodobný tvůrce matematického modelu pražského orloje', *Pokroky Matematiky, Fyziky a Astronomie* 54 (2009), 307–17; A. Hadravová, P. Hadrava, 'The Eclipse Instrument of John Šindel', in *Studying the Arts in Late Medieval Bohemia: Production, Reception and Transmission of Knowledge*, ed. O. Pavlíček, Turnhout, 2021, 305-40: 306-07 and *passim*.

Modern ed. ---

EDS ---

MSS Prague, APH, O. I (1585), s. XV, f. 138r–161v

C.1.15. Johannes Andree Schindel, *Tractatus de quantitate trium solidorum*

A commentary on *Almagest* V.13–16, on the distances and sizes of the Moon, the Sun and the earth, written by Johannes Andree Schindel in 1420, that is, two year after he finished lecturing on the *Almagest* at the University of Prague (see C.1.14).

Text '(Munich, BSB, Clm 56) Incipit tractatus de quantitate trium solidorum. Capitulum primum de distantia Lune a terra. Quia tria corpora solida particularium — quia quod modicum distat nichil distare videtur etc. Explicit tractatus de quantitate trium solidorum secundum sententiam Ptolomei in Almagesti etc.'

Bibl. P. Spunar, *Repertorium auctorum Bohemorum provectum idearum post Universitatem Pragensem conditam illustrans*, 2 vols, Wrocław-Warszawa, 1985–1995 [Studia Copernicana, XXV and XXXV], I, 136 (no. 368).

Modern ed. ---

EDS ---

MSS Munich, BSB, Clm 56, s. XV, f. 197r–206v
Munich, BSB, Clm 14783, s. XV, f. 495r–505v
St Florian, SB, XI.619, s. XV, f. 135ra–139va
Vatican, BAV, Pal. lat. 1376, s. XV, f. 181ra–184va
Vienna, ÖNB, 5277, s. XVI, f. 92r–100v

C.1.16. Paul of Gerresheim, *Expositio practice tabule tabularum et propositionum Ptolomei pro compositione tabule sinuum et cordarum necessariarum*

An 'expositio' of Ptolemy's tables and propositions on sines and chords (*Almagest* I.9–11) written in 1443 by Paul of Gerresheim [Düsseldorf] at the University of Cologne, where he matriculated in 1422, received his master of arts in 1440 and was elected rector in 1442. Paul used the *Almagesti minor* (C.1.4). MS Brussels, BR, 1022–1047 is the autograph copy [Plate 12].

Text '(Brussels, BR, 1022–1047) Expositio practice tabule tabularum et propositionum Ptolomei pro compositione tabule sinuum et cordarum necessariarum, facta pro simplicibus per me Paulum de Gherisheym. Necessitatem et utilitatem tabule sinuum et cordarum astronomorum signifier Ptolomeus ostendit in prima dictione sui Almagesti — (196r) tabule sinuum et cordarum. Sequitur nunc ipsa tabula rectificata anno domini 1443' (followed by the table f. 196v–197v).

Bibl. Lorch 1992, 422; Zepeda 2018, 108–09. Most biographical information on Paul of Gerresheim has been gathered in *Manuscrits datés conservés en Belgique*, III: *1441–1460,* eds F. Masai, M. Wittek, Bruxelles-Gand, 1978, 20 (no. 237).

Modern ed. ---

EDS ---

MSS Brussels, BR, 1022–1047, s. XV, f. 184v–197v
Brussels, BR, 2962–2978, s. XV–XVI, f. 211r–212r (excerpt)

C.1.17. Giovanni Bianchini, *Flores Almagesti*

A series of ten *tractatus*, dealing with arithmetic (I), algebra (II), *De proportionibus* (III) and astronomical matters from the first six books of the *Almagest* (IV–X),

written by Giovanni Bianchini (*c.* 1410–1469) in Ferrara from *c.* 1440 until at least 1456. The manuscripts display differences in content and organisation.

Text '(Cracow, BJ, 558) (1r–12r) **[I]** Tractatus primus de arismeticha per Iohannem de Blanchinis. Liber primus. Incipit prohemium. Arismetrica (*corr. in* Arithmetica) dico quod determinatur per numeros, et duas noto diffinitiones numerorum — nec resultabit error sensibilis in aliquo calculo astrologie. (12r–15v) **[II]** Tractatus secundus Iohannis de Blanchinis de demonstrationibus cum regulis agregatis. De practica regularum argebre capitulum primum. In tota practica regularum argebre quattuor demonstrationibus — radix diminuta medietate cuborum valet res. (16r–25r) **[III]** Tractatus tertii Iohannis de Blanchinis. Diffinitiones. Si duo numeri ad invicem multiplicentur et productum per primum multiplicantem — versus portionis AE, quod est ultima conclusio. (25r–29v) **[IV]** [*Blank space for title*] Omnes recte linee et trianguli orthoghonii inter lineas eque distantes — et tot pedes sint blasis. (30r–47v) **[V]** Incipiunt demonstrationes necessarie ad figuram retoris liber tertius. Si ab uno puncto angulariter due recte linee protrahantur — tractatus quarti huius fiet eadem conclusio. (48r–80v) **[VI]** Liber primus tractatus sextus Iohannis de Bianchinis. Distantiam centri deferentis Solis a centro mundi atque verum locum augis Solis demonstrative invenire. Describam circulum zodiaci supra quem sit ABQL circa centrum — ut per operationes non committatur error. (80v–94r) **[VII]** Tractatus septimus. Liber secundus. Distantia centri deferentis, centrum epicicli acc... (?) quantitates semidiametri ipsius deferentie demonstrare. Demonstratum est per Ptholomeum in libro Almagesti — in demonstratione eclipsium et figura ipsorum pungenda. (94v–100r) **[VIII]** Tractatus octavus. Liber I. De minutis cass... (?) ad longitudines longiores et propinquiores demonstratio. In hiis que precesserunt, demonstratum est quod semidiameter Solis — in lineis rectis inclusorum tam quibus quibus perficietur opus nutu Dei gloriosi. (100v–110r) **[IX]** De imperfecta compositione tabularum hucusque observatarum aspectus Lune invenienda. In precedentibus demonstratum est diversitatem aspectus Lune — operare prout in sequentibus dabo exemplum eclipsis Lune futura. (110r–116r) **[X]** Eclipsis Solis futuri que erit in anno 1460 a nativitate domini de mense Iulii ad situm Ferrarie perscrutari. Primo queram coniunctionem veram luminarium per tabulas de motibus planetarum alias per me constructas — et si excesserit minuta 50 erit grisia cum albedine.'

Bibl. L. A. Birkenmajer, '*Flores Almagesti*. Ein angeblich verloren gegangener Traktat Giovanni Bianchini's Mathematikers und Astronomen von Ferrara aus dem XV. Jahrhundert', *Bulletin International de l'Académie des Sciences de Cracovie, Classe des Sciences* (1911), 268–78; L. Thorndike, 'Giovanni Bianchini in Paris Manuscripts', *Scripta Mathematica* 16 (1950), 5–12 and 169–80: 6–8 and 169–71; L. Thorndike, 'Giovanni Bianchini in Italian Manuscripts', *Scripta Mathematica* 19 (1953), 5–17: 10–13; G. Rosińska, 'The "Italian Algebra" in Latin and How it Spread to Central Europe: Giovanni Bianchini's *De Algebra* (ca. 1440)', *Organon* 26–27 (1997), 131–45; J. Chabás, B. R. Goldstein, *The Astronomical Tables of Giovanni Bianchini*, Leiden-Boston, 2009, 19; Zepeda 2013, 323–29; G. Van Brummelen, 'The End of an Error: Bianchini, Regiomontanus, and the Tabulation of Stellar Coordinates', *AHES* 72 (2018), 547–63: 551–52 and *passim*; J. Chabás, B. R. Goldstein, 'The *Tabulae eclypsium* by Giovanni Bianchini', *Aestimatio NS* 2.1 (2021), 1–41: 5–6 and *passim*.

Modern ed. ---

EDS ---

MSS Bologna, BU, 198 (293), s. XV, f. 3r–125v
Cracow, BJ, 558, s. XV, f. 1r–116r
Cracow, BJ, 601, s. XV, f. 62r–68v (*Tractatus* II)
Paris, BnF, lat. 10253, s. XV, f. 6r–138v (*Tractatus* I–VIII)
Perugia, BCA, 1004 (M. 27), s. XV, f. 1r–77r
Vatican, BAV, Reg. lat. 1904, s. XV–XVI, f. 1r–56r (*Tractatus* I–V)
Vatican, BAV, Vat. lat. 2228, s. XV, f. 16r–51v and 78r–120r (*Tractatus* I–VIII)

C.1.18. Averroes, ⟨*Gebri Hispalensis reprehensiones et correctiones in Ptolemei Magna compositione*⟩

This list of 22 criticisms and corrections to the *Almagest* by Geber (see C.1.2) in Averroes's rendering was copied by George of Trebizond in his personal notebook, which also contains the first draft of his commentary on the *Almagest* (C.1.19). Averroes criticised Ptolemy in several of his works, in particular in his *Epitome of the Almagest* (*Mukhtaṣar al-Majistī*, 1159–1162), which survives only in a Hebrew translation made by Jacob Anatoli in Naples in 1231, of which eleven manuscripts are known. The present list of 22 criticisms and corrections by Geber is not found in Averroes's *Epitome*, but Lay suggests that George of Trebizond may have derived it from the commentary on the *Epitome* by Efodi (Profiat Duran, *c.* 1340–1415), extant in MS Paris, BnF, hébreu 1021, f. 29r–31r, immediately after the text of the *Epitome*.

Text '(Torino, BNU, G II 36) Averois: Volo ponere ea in quibus reprehendit Geber Hispalen<sis> Ptolemeum in Magna compositione et correxit, sicut putavit, demonstrationibus suis. Primum in libro primo quod Ptolemeus ex figura sectoris fieri demonstravit per sex lineas — ponit eius super Solem.'

Bibl. Monfasani 1984, 677–78; J. Lay, 'L'abrégé de l'*Almageste*. Un inédit d'Averroès en version hébraïque', *ASP* 6 (1996), 23–61: 33. On Averroes's *Epitome of the Almagest*, see also M. Steinschneider 1893, II, 546–49; R. Lorch, 'The Astronomy of Jābir b. Aflāḥ', *Centaurus* 19 (1975), 85–107: 99–100 (reprinted in Lorch 1995, VI); D. N. Hasse, 'Averroes' Critique of Ptolemy and Its Reception by John of Jandun and Agostino Nifo', in *Averroes' Natural Philosophy and Its Reception in the Latin West*, ed. J. J. M. Bakker, Leuven, 2015, 69–88: 72–73.

Modern ed. ---

EDS ---

MSS Torino, BNU, G II 36 (996), s. XV, f. 27r–28r

C.1.19. George of Trebizond, *Expositio Magne compositionis Ptolomei*

Written in 1451 by George of Trebizond, as he was working on the translation (A.1.4), this is a full-length commentary on the *Almagest*. Monfasani, 672, writes:

'The commentary is the biggest work George ever produced. Apart from the writings of Regiomontanus, it is the largest work by a humanist on mathematics in the Quattrocento.' Both the translation and the commentary were successively addressed to Pope Nicholas V, to Iacopo Antonio Marcello, to Mehmed II, to Matthias Corvinus and to Pope Sixtus IV (see A.1.4). Unlike the translation, the commentary was never printed. MS Torino, BNU, G II 36 preserves the draft of the text in George's hand [Plate 16]. MS Stuttgart, WLB, Math. fol. 24 is the copy addressed to Matthias Corvinus with George's autograph corrections. MS Vatican, BAV, Vat. lat. 2058 is the copy addressed to Sixtus IV by Andreas of Trebizond, George's son. George's commentary was the target of Regiomontanus's critique (see C.1.23).

Text '(Basel, UB, F.V.22) (4r–21r) [INTRODUCTION] Georgii Trapezuntii ad libros Magne Ptolomei compositionis introductio. Capitulum primum de divisione omnis circuli et precipue zodiaci. Quoniam libros Ptolomei de motibus celestium, quibus nescio an quicquam altius ac rationis et scientie via certius inveniri aut fingi possit ex Greca lingua in Latinam vertimus — in exponendo Ptolomeo non gravabimur decies enim repetita placebunt. (21r–53v) [BOOK I] Expositio Magne compositionis Ptolomei a Georgio Trapezunda facta incipit. Codicis huius quem expositurus gratia salvatoris sumus volumina librique XIII sunt, in quibus Ptolomeus intendit erraticarum stellarum et fixarum motus invenire — decrescunt equaliter ut mox videbitur. (53v–90v) [BOOK II] Incipit liber secundus. De universali orbis terrarum situ qui a nobis habitatur. In hoc libro principaliter ascensiones climatum et angulos — orientalior sit vel subtrahere si occidentalior. Explicit liber secundus. (90v–110v) [BOOK III] Incipit tertius. De magnitudine animi temporis. Capitulum primum. Cum in superioribus per transitionem: Ac rethores dicerent exorsus est breviter — motum huic tempori convenientem addentes aut subtrahentes. (110v–127v) [BOOK IV] Incipit liber quartus. Quibus observationibus accidentia Lune consideranda sunt. Capitulum primum. Nam cum distantia qua Lunae globus quoniam terra — 30 Novembris die vel circa ingrediebatur. (127v–167r) [BOOK V] Incipit liber quintus. De constructione instrumenti quod astrolabium vocatur. Capitulum primum. In utraque quadratura: Quadraturas latine dicimus quas Graeci dichoromos appellant — in differentia alterius vie ad alteram. (167r–204v) [BOOK VI] Quomodo mediarum coniunctionum atque oppositionum componende tabule sunt. Capitulum secundum. Notum distantie graduum 20.37: Sol enim medie fuerat in Piscium — quoniam e contra centrum eius borealius est. Explicit liber sextus. (204v–207v) [BOOK VII] Incipit septimus. Quod stelle non erratice semper eundem inter se situm servant. Capitulum primum. In hoc libro de stellis non erraticis agit — australior propinquior polo australi. (207v–215r) [BOOK VIII] De spera solida facienda. Capitulum tertium. Capiemus in ipsa duo puncta quem exquisite per dyametrum — vel tot diebus de coniunctione Solis defeciat. Sequitur liber nonus. (215r–243v) [BOOK IX] Incipit liber nonus. De ordine globorum Solis, Lune, ceterarumque stellarum erraticarum. Capitulum I. <Q>uasi ad polos obliqui solaris et fixae ad polos zodiaci moventur — minime ad centrum epicycli. (243v–263r) [BOOK X] Liber decimus incipit. Demonstratio maxime longitudinis stelle Veneris. Per equales et ad eandem partem: Maximas inquit distantias stelle videlicet a Sole — reliquorum 109.42 et angulus

similiter IBT. Explicit liber decimus Magne compositionis Ptolomei. (263r–281r) [**BOOK XI**] Incipit undecimus. Demonstratio excentricitatis et maxime longitudinis stelle Iovis. Capitulum primum. Centrum equantis querit primo sicut et in Marte — enim fundamenta iam sunt omnia consequi poterit. (281r–308v) [**BOOK XII**] Liber XII. De hiis quae premittuntur ad regressus plan<e>tarum demonstrandos. Perspicuum est quod de regressibus nunc dicendum — priore distantia quoniam maior est quam posterior. (308v–351r) [**BOOK XIII**] Incipit liber XIII^{us}. De suppositionibus quae ad motus latitudinis quandoque planetarum pertinent. Quoniam etiam propter eas sensibiles differentie (?): Apparitiones et occultationes stellarum dicit — maius inter observationes temporis spatium exigit quam vita hominis sit. [**COLOPHON**] Laudetur nomen tuum, qui me hoc opus in die felici salutis nostre absolvere voluisti, Christe benedicte, quod in die quam foelici tue incarnationis incoepi absolvique novem id mensibus, traductionum vero textus mensibus novem diebus 22, cuius rei testis gravissimus est, tempore pontifex summus Nicolaus V, qui volumen traducendum mense Marcii tradidit et mense Decembris anni eiusdem et librum traductum et commentarios vidit absolutos propter quos postea me destruxit, ut cedule ostendunt, per ignorantissimum Iacobum Cremonensem apposite. Deo gratias.'

Bibl. Norlind 1966; P. L. Rose, *The Italian Renaissance of Mathematics. Studies on Humanists and Mathematicians from Petrarch to Galileo*, Genève, 1975, 41–42; Monfasani 1984, 671–87 (and 248, 285, 322 and 786–89 for the prefaces); Zepeda 2013, 329–34; M. Shank, 'The *Almagest*, Politics, and Apocalypticism in the Conflict between George of Trebizond and Cardinal Bessarion', *Almagest* 8 (2017), 49–83.

Modern ed. None, except several exerpts, ed. Monfasani, 679–87, and the various prefaces, ed. Monfasani, 248–51 (to Iacopo Antonio Marcello), 286–87 (to Matthias Corvinus), 322–25 (preface to the reader from Torino, BNU, G.II.36) and 796–804 (Andreas of Trebizond to Sixtus IV). Andreas of Trebizond's preface to Sixtus IV had already been edited by M. Fuiano, 'Astrologia ed umanesimo in due prefazioni di Andrea di Trebizonda', *Atti dell'Accademia Pontaniana*, Nuova Serie 17 (1968), 385–412: 405–12.

EDS ---

MSS Basel, UB, F.V.22, s. XV, f. 4r–352v
Dublin, TC, 382, s. XVI–XVII, f. 35r–40v (excerpts)
Göttweig, SB, 379, s. XVI, f. 4r–338v
Lund, UB, Klass. förf. (*olim* Math. Fol. 1), s. XV, f. 2r–284r (with preface to Sixtus IV)
Milan, BA, A. 143 inf., s. XV, f. 1r–260r
Oxford, BL, Laud. Lat. 111, s. XV, f. 1r–153r (with preface to Iacopo Antonio Marcello)
Paris, BnF, lat. 7265, s. XV, f. 1r–297v
St Petersburg, BAN, IV-1-935, s. XV, f. 40r–40v (preface to Matthias Corvinus only)
Stuttgart, WLB, Math. fol. 24, s. XV, f. 1r–312v (with preface to Matthias Corvinus)
Torino, BNU, G II 36 (996), s. XV, f. 39r–198v
Vatican, BAV, Vat. lat. 2058, s. XV, f. 1r–241v (with preface to Sixtus IV)
Vienna, ÖNB, 3106, s. XV, f. 1r–262r
Vienna, ÖNB, 10903, s. XV, f. 1r–263r

C.1.20. Georg Peurbach, *Tractatus super propositiones Ptolemei de sinubus et chordis*

Explanation of six propositions on sines and chords by Georg Peurbach (1423–1461), largely based on John of Gmunden's *De sinubus, chordis et arcubus* (1437). Ptolemy is named in the title of both early printed editions, as well as (apparently) in the title of MS [ZZ] *olim* Maihingen, A.B. VII.3.2º 7, but not in the earliest witness, MS Vienna, ÖNB, 5203, copied by Regiomontanus.

Text '(Vienna, ÖNB, 5203) 'Tractatus sinuum et chordarum Georgii Peurbachii. Sinuum, cordarum et arcuum noticia ad celestium motuum cognitionem pervalde necessaria existit, ideo de eorum doctrina restat in presenti perquirendum — Et similiter sciemus quantitates reliquarum chordarum, facilis ergo est secundum premissorum tenorem cordarum ad suos arcus cognitio. Finis.'

Bibl. Delambre 1819, 282–83; H. H. L. Busard, *Der Traktat de sinubus, chordis et arcubus von Johannes von Gmunden,* Wien, 1971, 75; H. Grössing, *Humanistische Naturwissenschaft. Zur Geschichte der Wiener mathematischen Schulen des 15. und 16. Jahrhunderts*, Baden-Baden, 1983, 106 and 115–16; Lorch 1992, 422; Zepeda 2018, 108; Malpangotto 2020, 39.

Modern ed. ---

EDS Nürnberg, Johannes Petreius, 1541, sig. A_2r–B_1v
Basel, Henricus Petri, 1561, sig. 131–139

MSS Vienna, ÖNB, 5203, s. XV, f. 124r–128r
[ZZ] *olim* Maihingen, A.B. VII.3.2º 7, s. XV–XVI

C.1.21. Johannes Regiomontanus, *Epitome Almagesti*

This summary of the *Almagest* was begun by Georg Peurbach in 1460 or 1461 at the request of Cardinal Bessarion, who sought to replace George of Trebizond's deficient translation and commentary (C.1.19). But Peurbach died unexpectedly in April 1461, as he was half-way through, and the work was continued by his student and associate Johannes Regiomontanus (1436–1476), who completed it in 1461 or 1462. Besides the *Almagest*, based on Gerard of Cremona's translation (A.1.2), Peurbach and Regiomontanus made extensive use of Geber's *Liber super Almagesti* (C.1.2), the *Almagesti minor* (C.1.4) and Albategni's [al-Battānī] *De scientia astrorum*. For further works by Regiomontanus on the *Almagest*, see C.1.22–23. The *Epitome Almagesti* was used by the anonymous author of the *Liber Almagesti Ptholomei abbreviatus* (C.1.24).

Text '(Venice, BNM, Fondo antico lat. Z. 328) (1r–2r) **[PREFACE]** Admiranti michi saepenumero vel potius graviter et inique ferenti tam raros esse etate nostra optimarum disciplinarum — et sic reliqua, nisi nos opinio fallit, facile superabunt. (2v–12r) **[BOOK I]** Epitoma primi libri Ptolemaei. Recte profecto meo iudicio nobiliores philosophi, o Syre,

distinxerunt inter theoricam philosophie et practicam partem — Patet igitur veritas corolarii atque usus eius. Finis primi. (12r–20v) **[BOOK II]** Incipit secundus. In orizonte obliquo latitudinem ortus dati puncti ecliptice per arcum semidiurnum — scilicet angulus AHT, notus fiet, qui querebatur. Finis secundi. (21r–31r) **[BOOK III]** Tercius incipit. Ingressum Solis in punctum equinoctii instrumenti adiutorio colligere — et a differentibus minuenda ut tempus mediocre proveniat. Finis tercii. (31v–38v) **[BOOK IV]** Quartus incipit. Verum locum Lune in ecliptica certius per eclipses lunares quam instrumenta — inter centrum mundi et centrum epicicli reperiret. Finis quarti. (39r–50r) **[BOOK V]** Quintus incipit. Instrumentum armillarum componere. Due armille decentis et eiusdem magnitudinis superficierum — qua omnia cum precisione possent inveniri. Finis quinti. (50v–61r) **[BOOK VI]** Sextus incipit. Quo pacto tempus et locus medie coniunctionis luminarium reperiatur — quare arcus OH notus, qui querebatur. Finis sexti. (61v–66r) **[BOOK VII]** Septimus incipit. Quod stelle fixe zodiaci non modo inter se verum etiam ad eas que extra zodiacum sunt stellas distantiam — versus alterum removeantur polorum cognitas fieri necesse est. Finis septimi. (66v–72v) **[BOOK VIII]** Octavus incipit. Viam Lacteam per stellas quae in ea sunt notabiliores describere — accipias angulum occidentalem orizonte et ecliptica comprehensum. Finis octavi. (73r–82v) **[BOOK IX]** Nonus incipit. Spherae celestes quo ordine habende sint ostendere — si que excreverint, revolucionibus habebis radicem cupitam. Finis noni. (83r–91v) **[BOOK X]** Decimus incipit. Diameter ecentrici Veneris per longitudinem longiorem eius atque propiorem transiens — satis erit pro medio motu planete in longitudine radicem statuisse. Finis decimi. (92r–100r) **[BOOK XI]** Undecimus incipit. Ad occasiones diversi motus Iovis quibusdam preambulis pervenire — Hec de angulis diversitatum breviter perstringere libuit. Finis undecimi. (100v–105r) **[BOOK XII]** Duodecimus incipit. Si planetis altioribus unicam posueris diversitatem, epiciclus in concentrico aut ecentricus — Geminis nisibus pertingere non tua te deterreat socordia. Finis duodecimi. (105v–117r) **[BOOK XIII]** Terciusdecimus. Latitudinibus trium superiorum viam speculationis aperire — quod postremo hoc in theoreumate explorare et coepto labori modum statuere decrevimus. Finis terciidecimi.'

Bibl. Delambre 1819, 284–88; E. Rosen, 'Regiomontanus' *Breviarium*', *Medievalia et Humanistica* 15 (1963), 95–96; N. M. Swerdlow, 'The Derivation and First Draft of Copernicus's Planetary Theory: A Translation of the Commentariolus with Commentary', *Proceedings of the American Philosophical Society* 117 (1973), 423–512: 425–26; N. W. Swerdlow, O. Neugebauer, *Mathematical Astronomy in Copernicus's De revolutionibus*, New York, 1984, I, 50–52; Zinner 1990, 51–55 and 213–14; Rigo 1991, 77–92; A. Rigo, 'Gli interessi astronomici del cardinal Bessarione', in *Bessarione e l'Umanesimo. Catalogo della mostra*, eds G. Fiaccadori, A. Cuna, A. Gatti, S. Ricci, Napoli, 1994, 105–17: 109–13; M. Shank, 'Regiomontanus and Homocentric Astronomy', *JHA* 29 (1998), 157–66; M. Shank, 'Regiomontanus on Ptolemy, Physical Orbs, and Astronomical Fictionalism: Goldsteinian Themes in the "Defense of Theon against George of Trebizond"', *Perspectives on Science* 10 (2002), 179–207; J. S. Byrne, *The Stars, the Moon, and the Shadowed Earth: Viennese Astronomy in the Fifteenth Century*, PhD dissertation, Princeton University, 2007, 156–67; M. Shank, 'Regiomontanus as a Physical Astronomer: Samplings from *The Defence of Theon against George of Trebizond*', *JHA* 38 (2007), 325–49; M. Malpangotto, *Regiomontano e il rinnovamento del sapere matematico e astronomico nel Quattrocento*, Bari, 2008, 33–36; Zepeda 2013, 334–39; M. Shank, 'Regiomontanus and Astronomical Controversy in the Background of Copernicus' in *Before Copernicus. The*

Culture and Contexts of Scientific Learning in the Fifteenth Century, eds R. Feldhay, F. J. Ragep, Montreal-London-Chicago, 2017, 79–109: 87–92; M. Shank, 'The *Almagest*, Politics, and Apocalypticism in the Conflict between George of Trebizond and Cardinal Bessarion', *Almagest* 8 (2017), 49–83: 56–57; Zepeda 2018, 109–14; Malpangotto 2020, 33-34 and 38; M. Shank, 'Regiomontanus *versus* George of Trebizond on Planetary Order, Distances, and Orbs (*Almagest* 9.1)', in Juste/van Dalen 2020, 305–86.

Modern ed. None, but there is a facsimile of ed. Venice 1496 in F. Schmeidler, *Joannis Regiomontani opera collectanea. Faksimiledrucke von neun Schriften Regiomontans und einer von ihm gedruckten Schrift seines Lehrers Purbach*, Osnabrück, 1972, 55–274.

EDS Venice, Johannes Hamman, 1496, sig. a_2r–[p_7]v
Basel, Henricus Petri, 1543, sig. 1–267
Nürnberg, Johannes Montanus & Ulricus Neuberus, 1550, sig. A_4r–[T_{vi}]v

MSS Bologna, BCA, A. 38, s. XV, f. 1r–164v
Cracow, BJ, 595, s. XV, f. 12r–155r (beginning missing)
Florence, BNC, Conv. Soppr. G.I.1690, s. XV, f. 1r–146r
Florence, BNC, Magliabech. XI.144, s. XV, f. 24v–105v
Jena, TULB, El. f. 73, s. XVI, f. 8r–9r, 138r and 179r–180r (excerpts)
Naples, BN, VIII C 40, s. XV, f. 1r–172v
Paris, BnF, lat. 5787, s. XV–XVI, f. 80r–213r
Vatican, BAV, Barb. lat. 156, s. XV, f. 1r–145v
Vatican, BAV, Vat. lat. 11573, s. XV, f. 1r–155v
Venice, BNM, Fondo antico lat. Z. 328 (1760), s. XV, f. 1r–117v
Venice, BNM, Fondo antico lat. Z. 329 (1843), s. XV, f. 39r–213r (beginning missing)
Vienna, ÖNB, 44, s. XV, f. 1r–136r

C.1.22. Regiomontanus, ⟨*Annotationes et calculationes in Almagesti*⟩

Scattered notes and calculations concerning various parts of Books I–III of the *Almagest*, introduced by a preface. These notes and calculations are found in a unique manuscript in Regiomontanus's hand, except for a portion copied by Cardinal Bessarion. Zinner dates these notes to *c.* 1463 and speculates that they may have served as a preliminary to the *Problemata Almagesti*, a work to which Regiomontanus refers several times in his works and letters, but which appears to be lost (see L.6, in Appendix I).

Text '(Venice, BNM, Fondo antico gr. Z. 526) Vulgatum est apud geometricas quantitatem anguli plani et rectilinei dependere... (208r) Ad quintum capitulum libri III. Ponatur arcus eccentrici...'

Bibl. E. Zinner, 'Einige Handschriften des Johann Regiomontan (aus Königsberg in Franken)', *Historischer Verein, Bamberg, Berichte* 100 (1964), 315–23: 322–23; Zinner 1990, 74–76; Rigo 1991, 92–95; A. Rigo, 'Gli interessi astronomici del cardinal Bessarione', in *Bessarione e l'Umanesimo. Catalogo della mostra*, eds G. Fiaccadori, A. Cuna, A. Gatti, S. Ricci, Napoli,

1994, 105–17: 112; M. Malpangotto, *Regiomontano e il rinnovamento del sapere matematico e astronomico nel Quattrocento*, Bari, 2008, 206; F. Acerbi, 'I codici matematici di Bessarione', in *I libri di Bessarione. Studi sui manoscritti del Cardinale a Venezia e in Europa*, eds A. Rigo, N. Zorzi, Turnhout, 2021, 107–218: 115 n. 25.

Modern ed. ---

EDS ---

MSS Venice, BNM, Fondo antico gr. Z. 526 (776), s. XV, f. 168r–175r and 208r–225v

C.1.23. Regiomontanus, *Defensio Theonis contra Trapezuntium*

A sharp criticism of George of Trebizond's commentary on the *Almagest* (C.1.19), this massive work survives mainly in the St Petersburg MS, which was Regiomontanus's working copy, with numerous corrections and additions, all in his hand [Plate 15]. The work cannot be dated precisely, but it is likely that Regiomontanus began writing it as early as 1462 and that he kept working on and revising it until his death in 1476. The Escorial MS, which contains an incomplete copy of Books I–III, is also Regiomontanus's autograph.

Text '(St Petersburg, BAN, IV-1-935, ed. Shank/Kremer) (37r–39r) **[PREFACE]** Nuper quosdam offendi commentarios in magnam Claudii Ptolemaei compositionem inclito ac Christianissimo Pannoniarum regi Matthiae autore Georgio Trapezuntio inscriptos, quorum ingenti magnitudine subitaque novitate mirum in modum letabar, talis iamdiu cupieris expectans muneris, multo autem maximum videndi desiderium ardorem instinxit maiestas principis cui opus illud dedicatum erat. Non enim nisi elegantissimo quolibet atque optimo — ab iniuriis distat abstinere siquando alieno indire peccata sua recognoverit. **[TITLE]** Defensio Theonis contra Trapezuntium. (2r–17r) **[BOOK I]** In prefatione Leonem Judeum carpens inquit: Nec potuit percipere dispositiones aeris propinquitatem et remotionem in visu plurimum immutare. Propinquiora enim apparent que humido crassoque medio cernimus — Sed tale aliquid dicit de Ptolemeo Geber in tractatu suo septimo ubi centrum ecentrici alicuius trium superiorum investigatur. (17v–29v) **[BOOK II]** Secundus liber. In capitulo Quinto secundi libri: Meridianus, inquit, et orizon quoniam maximi circuli in duo equalia — ubi enim locus dabitur, multo plura pronunciabit lingua. (29v–36v and 40v–50r) **[BOOK III]** In capitulo tertio libri tertii premittit quasdam vocabulorum diffinitiones ubi prorumpit — sed inversas ac falsas hominis temerarii exposiunculas pessundare. (50v–57v) **[BOOK IV]** Secundus: Super quarto libro quas homo iste temerarius ineptias effutire ausit circa inspectiones lunares — quod reliquum est alibi abundius manifestabitur. (57v–92r) **[BOOK V]** Iam quantum Ptolemei librum ab iniquis exposiunculis vidicare iubemur — reciprocam sibi quandam prestarent investigandi facultatem. (92r–144r) **[BOOK VI]** Percusis hactenus deliramentis quibus argutissima Ptolemei doctrina ab expositore — de stellis fixis atque erraticis perperam commentus es, cur sim excribare pergemus. (144r–147v) **[BOOK VII]** Cum equidem primum ad defendendum viros inique lacessitos animum appuli — quicquid super his duobus scripsit voluminibus in unum quasi

acervum confersit. (147v–150v) **[BOOK VIII]** Octavus autem quoniam narrationis fili (?) sensum derelicto — Verum cum huiuscemodi leviores a plerique omnibus peccata satis emendare possint. (151r–186v) **[BOOK IX]** Noni deinceps voluminis commenta per lustrare aggrediemur ubi in primis — ceteris tradiderit planetis expeditiorem cursum habentibus aliquis animadvertat. (186v–190r) **[BOOK X]** De Venere quidem circa principium decimi voluminis pauca cum dixerit — centro equantis producte ad centrum epicycli sui reperiatur. (190r–207r) **[BOOK XI]** Item in calce capituli primi libri undecimi de stella Iovis eandem autor — passionibus de doctrina hominis periculum faciemus. (207r–244r) **[BOOK XII]** Quartus. Super duodecimo incipe. Superius igitur etsi hominis peritia astronomia explorata sit — nefando fumo obtenebrare non erubescit. (244r–302v) **[BOOK XIII]** Donec de hoc hominis monstro iudicatis ad postrema nos deinceps — clientulo indicatam tuo declinare velis. Hinc procul fugite quicumque sideralem queritis disciplinam commentariosque mendaces una cum autore suo Georgio Trapezuntio sinite valere.'

Bibl. E. Zinner, 'Einige Handschriften des Johann Regiomontan (aus Königsberg in Franken)', *Historischer Verein, Bamberg, Berichte* 100 (1964), 315–23: 318–21; Zinner 1990, 97–98; M. Shank, 'Regiomontanus and Homocentric Astronomy', *JHA* 29 (1998), 157–66: 161–63; M. Shank, 'Regiomontanus on Ptolemy, Physical Orbs, and Astronomical Fictionalism: Goldsteinian Themes in the "Defense of Theon against George of Trebizond"', *Perspectives on Science* 10 (2002), 179–207; M. Shank, 'Regiomontanus as a Physical Astronomer: Samplings from *The Defence of Theon against George of Trebizond*', *JHA* 38 (2007), 325–49; M. Malpangotto, *Regiomontano e il rinnovamento del sapere matematico e astronomico nel Quattrocento*, Bari, 2008, 45–48; Zepeda 2013, 339; M. Shank, 'Regiomontanus and Astronomical Controversy in the Background of Copernicus' in *Before Copernicus. The Culture and Contexts of Scientific Learning in the Fifteenth Century*, eds R. Feldhay, F. J. Ragep, Montreal-London-Chicago, 2017, 79–109: 94–96; M. Shank, 'The *Almagest*, Politics, and Apocalypticism in the Conflict between George of Trebizond and Cardinal Bessarion', *Almagest* 8 (2017), 49–83: 57; M. Shank, 'Regiomontanus *versus* George of Trebizond on Planetary Order, Distances, and Orbs (*Almagest* 9.1)', in Juste/van Dalen 2020, 305–86.

Modern ed. Online facsimile of the St Petersburg MS, with diplomatic edition, introduction and notes by M. Shank and R. L. Kremer at http://regio.dartmouth.edu/ (2009).

EDS ---

MSS Escorial, RBMSL, d.II.5, s. XV, f. 44r–63v (Books I–III, incomplete)
St Petersburg, BAN, IV-1-935, s. XV, f. 2r–302v

C.1.24. *Liber Almagesti Ptholomei abbreviatus*

An anonymous commentary on the *Almagesti minor* (C.1.4) consisting of 'a mixture of excerpts, summaries, and commentary' (Zepeda, 118). The text appears to be incomplete or unfinished in the only known manuscript. This commentary was composed after *c.* 1462, since the author used Regiomontanus's *Epitome Almagesti* (C.1.21), and may have originated with the scribe/author of the manuscript *c.* 1500.

An alternative title of the work is given to Book III: 'Incipit liber tertius epythomatis super astronomia Albategni'.

Text '(Utrecht, UB, 6.A.3) Incipit liber Almagesti Ptholomei abbreviatus. Prefatio sex continens conclusiones. Omnium recte phylozophantium non solum verissimilibus et credibilibus argumentis — de duobus reliquis triangulis orthogoniis duarum.'

Bibl. Zepeda 2018, 117–19.

Modern ed. ---

EDS ---

MSS Utrecht, UB, 6.A.3 (725), s. XV–XVI, f. 4v–10r

C.1.25. Luca Gaurico, *Additiones in Almagesti*

Short additions to the *Almagest*, consisting mainly of tables (shadow tables, tables of months) and a note on the precessional increment to the star catalogue for 1530, made by Luca Gaurico as an appendix to his own edition of the *Almagest* in the translation of George of Trebizond (A.1.4) published in Venice in 1528. Gaurico also left a few annotations in the margins of the text of the *Almagest* (ed. Venice 1528 — in the subsequent editions of 1541 and 1551, these annotations have been inserted into the text in italics with the mention 'Gauric<us>').

Text '(ed. Venice 1528) (141v) Gaurici addictiones. [Table] Umbra gnomonis in meridiebus... (142r) Tabula ad sciendum latitudines regionum per horas diei prolixioris et econtra... (142v) L. Gauricus Neapol. lectoribus foelicitatem. Stellas fixas Ptolemaei ad annum salutis 1530 redigere. Si quispiam omnes stellas fixas Ptolemaei tempore observatas ad nostram hanc tempestatem seu mavis annum Christi 1530 redigere voluerit, ipsarum longitudinibus G. 19, M. 50 adiiciat... (142v–143v) [Tables of months].'

Bibl. ---

Modern ed. ---

EDS Venice, Luceantonius Junta, 1528, sig. 141v–143v
Basel, Henricus Petri, 1541, sig. 369–376
Basel, Henricus Petri, 1551, sig. 326–332

MSS ---

C.1.26. Johannes Noviomagus, *Isagoge in Ptolomaei Phaenomena*

A general introduction to the star catalogue of the *Almagest* published by Johannes Noviomagus (Jan van Bronkhorst, 1494–1570) in Cologne in 1537, as a preamble to his edition of Ptolemy's star catalogue in George of Trebizond's translation (A.1.4). Noviomagus was then professor of mathematics and Greek at the University of Cologne.

Text '(ed. Cologne 1537) Isagoge in Ptolomaei Phaenomena. Ut igitur Phaenomena quae astrologiae primordia sunt rectius intelligantur a studiosis — vocat in Meteoris. Finis.'

Bibl. E. Dekker, P. H. Meurer, R. Satterley, 'Zwei Himmelskarten nach Dürer bei Johannes Noviomagus (Köln 1537)', *Cartographica Helvetica* 42 (2010), 39–53: 44.

Modern ed. ---

EDS Cologne, 1537, sig. A_{ii}v–[A_{iv}]v

MSS ---

C.1.27. Erasmus Reinhold, ⟨*Scholia in Almagesti*⟩

This commentary is part of Reinhold's translation of the *Almagest*. See A.1.5.

C.1.28. Erasmus Reinhold, ⟨*Commentum in Almagesti V.12–16*⟩

A commentary on *Almagest* V.12–16, on the distances and sizes of the Moon, the Sun and the earth, written by Erasmus Reinhold in 1549. This commentary is found in Reinhold's notebook [Plate 27], otherwise mainly devoted to a commentary on Copernicus's *De revolutionibus*. In the same year 1549, Reinhold published his translation and commentary of Book I of the *Almagest* (A.1.5).

Note Another autograph of Reinhold is MS Philadelphia, UP-KC, LJS 397, which contains 37 folia of astronomical notes and calculations, including questions pertaining to Book V of the *Almagest* (f. 3v–4v: 'De proportionibus trium corporum. Hinc etiam facile constat solidarum magnitudinem...'). These notes are not dated.

Text '(Berlin, SBPK, lat. fol. 391) In Ptolemaei Μεγαλην σινταξιν, βιβλίου ε΄. (172v) Caput XII libri quinti. (173r) De maxima Lunae latitudine. Alexandriae latitudo est graduum 30.58. Quando autem Luna versabatur in tropico aestivo et in maxima latitudine — canonem parallaxium (?) Solis et Lunae. Θεῷ δοξα. Calendis Ianuarii 1549.'

Bibl. J. A. Henderson, *On the Distances Between Sun, Moon and Earth According to Ptolemy, Copernicus and Reinhold*, Leiden, 1991, 2-3 and *passim*.

Modern ed. ---

EDS ---

MSS Berlin, SBPK, lat. fol. 391, s. XVI, f. 172r–186v

C.1.29. Erasmus Oswald Schreckenfuchs, *In Almagesti priores tres libros annotationes*

A lemmatic commentary on *Almagest* I–III published in 1551 by the mathematician Erasmus Oswald Schreckenfuchs (1511–1575). This commentary was written as a

reading aid to the *Almagest* in George of Trebizond's translation (A.1.4), which Schreckenfuchs published as part of his volume of Ptolemy's *Opera omnia* in Basel in 1551. Schreckenfuchs's contribution aside, this volume is essentially a reprint of Ptolemy's *Opera omnia* published in Basel in 1541.

Text '(ed. Basel 1551) (a_1r–a_6r) Erasmi Osvaldi Schrekhenfuchsii ad lectorem praefatio, qua Claud<ii> Ptolemaei in Almagesto difficiliora explicantur. In primis duobus libris, optime lector, breviusculis annotationibus — habebit magnum aditum ad reliqua vale. Praefationis Erasmi Osvaldi Schrekhenfuchsii ad lectorem finis. (b_1r–f_3v) Eras<mi> Osvaldi Schrekhenfuchsii in Magnae compositionis Cl<audii> Ptolemaei Pelusiensis Alexandrini libri I annotationes. Caput II. Propositi autem] In hoc capite proponitur totius Almagesti series ac ordo — (f_3v) 219 dierum, 17 horarum et 58 min<utorum> hactenus de hoc capite. Eras<mi> Osvaldi Schrekhenfuchsii in Almagesti priores tres libros annotationum finis' (followed by two astronomical figures, f_4r–f_4v).

Bibl. Thorndike 1923–1958, VI, 16. On Schreckenfuchs, see also H. Schröckenfuchs, *Erasmus Oswald Schreckenfuchs 1511–1575 und seine Nachkommen*, Wien, 2008; Malpangotto 2020, 221–32.

Modern ed. ---

EDS Basel, Henricus Petri, 1551, sig. a_1r–f_4v

MSS ---

C.1.30. Theon of Alexandria, *Commentary on the Almagest* [Greek]

A very substantial commentary on the complete *Almagest* composed in Greek by Theon of Alexandria in the second half of the fourth century. In most Greek manuscripts, Books III, V and XI are missing, but these gaps have been partially filled, for the missing Book III was replaced by the commentary of Nicolaus Cabasilas (fourteenth century) and the missing Book V by the commentary of Pappus of Alexandria (d. 350). This arrangement is found, among others, in the Greek MS Nürnberg, SB, Cent. V App. 8, a manuscript which belonged to Regiomontanus and which was the exemplar of the *editio princeps* of 1538, which, in turn, was the source for most (all?) of the nine Latin translations identified here (C.1.30.1–9). One of the first Latin users of the Greek text, before it was translated into Latin, appears to be Erasmus Reinhold in 1549 (see A.1.5).

Bibl. Delambre 1817, II, 550–616; A. Rome, 'Les observations d'équinoxes et de solstices dans le chapitre 1 du livre 3 du commentaire sur l'Almageste par Théon d'Alexandrie (première partie)', *Annales de la Société scientifique de Bruxelles, Série I* 57 (1937), 213–36; A. Rome, 'Les observations d'équinoxes et de solstices dans le chapitre 1 du livre 3 du commentaire sur l'Almageste par Théon d'Alexandrie (deuxième partie)', *Annales de la Société scientifique de Bruxelles, Série I* 58 (1938), 6–26; A. Rome, 'The Calculation of an Eclipse of the Sun according to Theon of Alexandria', *Proceedings of the International Congress of Mathematicians*, Providence, 1950, 209–19; A. Rome, 'Sur l'authenticité du 5^{e} livre du Commentaire de Théon d'Alexandrie sur l'Almageste, *Académie Royale de Belgique. Bulletin de la Classe des Lettres et des Sciences Morales et Politiques, 5^{e} série* 39

(1953), 500–21; A. Tihon, 'Le Livre V retrouvé du *Commentaire à l'Almageste* de Théon d'Alexandrie', *L'Antiquité Classique* 55 (1987), 201–18; A. Jones, 'Theon of Alexandria's Observation of the Solar Eclipse of A.D. 364 June 16', *JHA* 43 (2012), 117–18; J. Christianidis, I. Skoura, 'Solving Problems by Algebra in Late Antiquity: New Evidence from an Unpublished Fragment of Theon's Commentary on the *Almagest*', *SCIAMVS* 14 (2013), 41–57; J. M. Steele, 'The Eclipse of Theon and Earth's Rotation', in *New Insights From Recent Studies in Historical Astronomy: Following in the Footsteps of F. Richard Stephenson*, eds W. Orchiston, D. A. Green, R. Strom, Heidelberg-New York, 2015, 47–51; F. Acerbi, 'Byzantine Recensions of Greek Mathematical and Astronomical Texts: A Survey', *Estudios Bizantinos* 4 (2016), 133–213: 175–76; I. Skoura, *Τα σχόλια του Θέωνα στη Μαθηματική Σύνταξη του Πτολεμαίου*, PhD dissertation, University of Athens, 2016.

Modern ed. The Greek text was first published by Simon Grynaeus on Johannes Walderus's press in Basel in 1538, as second part to the *editio princeps* of the Greek text of Ptolemy's *Almagest*, also published by Simon Grynaeus. Critical edition of Books I–V (with Book V in Pappus's version) by A. Rome, *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste*, Vaticano, 1931–1943, 3 vols. An older edition of Books I–II, together with a French translation was made by Halma 1821, and N. Halma, *Commentaire de Théon d'Alexandrie sur le second livre de la composition mathématique de Ptolémée*, Paris, 1821. There is no modern edition of Books VI–XIII.

C.1.30.1. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Johannes Hommel

A partial translation, comprising Theon's preface and the first ten chapters of Book I, by Johannes Hommel (1518–1562), professor of mathematics at the University of Leipzig from 1551 onwards.

Text '(Munich, BSB, Clm 719) Theonis Alexandrini in primum librum Mathematicae constructionis Ptolomaei commentarius. Prooemium. Saepius admonitus ab autoribus, fili Epiphani, explicare ea, quae cuique difficilia videntur in Mathematica Ptolomaei constructione — quam Ptolomaeus 47′ 8″ esse affirmat.'

Bibl. Müller 1998, 49 and 331–33, no. 152 (entries by M. Folkerts); T. Woitkowitz, 'Der Landvermesser, Kartograph, Astronom und Mechaniker Johannes Humelius (1518–1562) und die Leipziger Universität um die Mitte des 16. Jahrhunderts', *SA* 92 (2008), 65–97: 91.

Modern ed. ---

EDS ---

MSS Munich, BSB, Clm 719, s. XVI, f. 1r–70v

C.1.30.2. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. in or before 1556

A partial translation, made of two chapters only (I.9–10), by an anonymous translator. The date 1 December 1556, given at the end of the text in the only

known manuscript, may be that of the copy. The manuscript in question belonged to Johannes Praetorius.

Text '(Munich, BSB, Clm 719a) Ex Theone, Ptolemaei commentatore [note in upper margin by a contemporary hand]. De particularium scientiis. De initiis alicuius doctrinae dicturus planius, sicut in prioribus ea quae de mathematicis (!) speculationibus summatim oportebat proponere — ut X partibus habebimus circumferentiam quae a recta dicta subtenditur. Finis. 1 Dec. 56.'

Bibl. Müller 1998, 49 and 333–34, no. 153 (entries by M. Folkerts).

Modern ed. ---

EDS ---

MSS Munich, BSB, Clm 719a, s. XVI, f. 1r–19r

C.1.30.3. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Henry Savile

Translated by Henry Savile in Oxford in 1568, this partial version covers Theon's preface and Books I–III, V, VII.1–4 and VIII.2 (with Book III by Nicolaus Cabasilas's version and Book V in Pappus of Alexandria's version, see C.1.30), and is interspersed with Ptolemy's original text, also translated by Savile (A.1.7). Books VII and VIII include Ptolemy's text only and ignore Theon's commentary. The translation is extant over three autograph copies: MSS Oxford, BL, Savile 26 (Book I); Oxford, BL, Savile 27 (Books II–III, VII.1–4 and VIII.2) [Plate 30]; and Oxford, BL, Savile 28 (Book V). Savile lectured on the *Almagest* at Merton College in 1570–1571 (see C.1.33).

Text '(Oxford, BL, Savile 26) **[PTOLEMY'S TEXT]** Ptolemaeus. Praeclare mihi videntur, Syre, seniores (*corr. ex* doctiores) philosophi contemplantem philosophiae partem ab activa separasse... **[THEON'S COMM.]** Theon. Assiduis auditorum adhortationibus compulsus, fili Epiphanie, ut aliquid de iis quae difficiliora in mathematica Ptolemaei...'

Bibl. Goulding 1999, 28–31 and 134–38.

Modern ed. ---

EDS ---

MSS Oxford, BL, Savile 26, s. XVI, f. 3r–78v
Oxford, BL, Savile 27, s. XVI, f. 2r–88r
Oxford, BL, Savile 28, s. XVI, f. 1r–28r

C.1.30.4. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Giovanni Battista Teofilo

This translation, which includes Theon's preface and Books I–IX (with Book III in Nicolaus Cabasila's version and Book V in Pappus's version, see C.1.30), was

made by Giovanni Battista Teofilo (Johannes Baptista Theophilo), physician at Urbino and a student of Federico Commandino. The translation is dated 1571 by Vincenzo Viviani, in a note added on the last page of Teofilo's autograph copy (MS Paris, BnF, lat. 7263), which Viviani owned and gave to Louis XIV in 1686. However, the translation was apparently not yet completed in 1574, for, in a letter dated 30 July 1574, Commandino asked Teofilo whether he had finished it. This letter is extant in the same MS Paris, BnF, lat. 7263, f. VIIIr–IXv (see Rose, 300 and edition, 306–07), among other documents which highlight the history of the text. One of these documents, an anonymous letter to Jacomo Tassoni, nephew of Teofilo, dated 1595, informs us about the prospect of publishing the translation (f. IVr–Vr, see Rose, 300). In 1717, a copy of the autograph was made for Pope Clement XI. This copy was later acquired by Baldassarre Boncompagni (= MS [ZZ] Boncompagni 219), who also had in his library a copy made in 1658 by Jacopo Tassono, great grandson of Teofilo — in all likelihood a different person from the above-mentioned Jacomo Tassoni (= MS [ZZ] Boncompagni 218) (see Rome and Rose, 301 and n. 8). Commandino also had his own copy of the text, or at least part of it, now MS Urbino, BU, Fondo del Comune — Busta 120.

Text '(Paris, BnF, lat. 7263) Persaepe ab auditoribus admonitus (*sus.* Frequentibus auditorum exhortationibus impulsus), mi (?) Epifani fili, ~~ut~~ in (*sus.* ad) ea quae in Mathematica Ptolemaei constructione obscura est — angulus eorundem erit 25. 21. 33.'

Bibl. Halma 1821, x–xiii; A. Rome, *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste*, I, Vaticano, 1931, vi–vii; P. L. Rose, 'Plusieurs manuscrits autographes de Federico Commandino à la Bibliothèque Nationale de Paris', *RHS* 24 (1971), 299–307: 300–01; M. N. Boyer, 'Pappus Alexandrinus', in *Catalogus translationum et commentariorum: Mediaeval and Renaissance Latin Translations and Commentaries*, eds P. O. Kristeller et al., II, Washington, DC, 1971, 212.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7263, s. XVI, f. 1r–391r
Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 198r–207v (beginning only)
[ZZ] Boncompagni 218, s. XVII, f. 16–349
[ZZ] Boncompagni 219, s. XVIII, f. 5–391

C.1.30.5. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Jerónimo Muñoz

A translation of the complete work (with Book III in Nicolaus Cabasila's version, Book V in Pappus of Alexandria's version and Book XI missing, see C.1.30) by Jerónimo Muñoz in 1582, when he was professor of astronomy ('cathedraticus

astrologie' or 'professor astrologie', as he calls himself in the colophon and in several places in the text) at the University of Salamanca. The only known manuscript is Muñoz's autograph copy, which includes his corrections, notes, additions and sometimes extensive commentary [Plate 31]. These are variously referred to by the words 'Interpres' or 'Munos' written in the margin, or as 'Propositio addita ab interprete' (55v), 'Interpretis addito' (71v), 'Finis commetariorum Theonis et additionum Hieronymi Munos interpretis' (74v), 'Commentaria Hieronymi Munos in 6 caput libri 4...' (190r), etc. See also the description of the manuscript. Muños annotated the manuscript beyond 1582, as shown by his observations dated 1583 (271r), 1584 (155r), 1585 (171v) and 1589 (172v).

Text '(Naples, BN, VIII C 33) Theonis Alexandrini commentaria in primum lib<rum> Mathematicae constructionis Ptolemei. Prooemium. Assiduo rogatus ab auditoribus, fili Epiphanie, dictarem aliqua in ea que, inquam (?), videntur ex Mathematica Ptolemaei constructione difficilia — descriptionum tabularum proportionalis supputando. Die 17 veteri calculo, 27 die vero novo Octobris mensis, anni 1582, decima hora antemeridiana, absolvebat Salmanticae Hieronymus Munos, cathedraticus astrologie gymnasii Salmanticen<sis>, translationem commentariorum Theonis Alexandrini in Magnam constructionem Cl<audii> Ptolemaei. Finis commentariorum Theonis Alexandri quae quidem (?) extant in Latinam linguam translatorum.'

Bibl. Kristeller 1963–1992, I, 424; P. L. Rose, 'Plusieurs manuscrits autographes de Federico Commandino à la Bibliothèque Nationale de Paris', *RHS* 24 (1971), 299–307: 301 n. 5; V. Navarro Brotóns, 'Continuity and Change in Cosmological Ideas in Spain Between the Sixteenth and Seventeenth Centuries: The Impact of Celestial Novelties', in *Change and Continuity in Early Modern Cosmology*, ed. P. J. Boner, Heidelberg-London-New York, 2011, 33–50: 37–38; V. Navarro Brotóns, *Jerónimo Muñoz: Matemáticas, cosmología y humanismo en la época del Renacimiento*, València, 2019, 115–28; M. Á. Granada, 'Jerónimo Muñoz y Juan Cedillo Díaz: el Sol como 'corazón del mundo' en el debate en torno a Copérnico', *Galilaeana* 20 (2023), 85–120.

Modern ed. Excerpts concerning *Almagest* I.7-8 (Naples, BN, VIII C 33, f. 34r–37r) have been published by Granada, 104–15.

EDS ---

MSS Naples, BN, VIII C 33, s. XVI, f. 21r–300r

C.1.30.6. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. late 16th century

A defective and chaotic version, comprising Theon's preface and Books I–V (with Book III in Nicolaus Cabasila's version and Book V in Pappus's version, see C.1.30) in disorder and with missing sections. The translation is anonymous and occurs in a single manuscript copied towards the end of the sixteenth century.

Text '(Florence, BML, Acquisti e Doni 694) Theonis Alexandrini commentarius in primum constructionis mathematicae Ptolemaei. Ad Epiphanium filium prohoemium. Frequentius admonitus ab auditoribus, Epiphani fili, ut eorum explanationem afferre quae unicuique ex Mathematica Ptolemaei constructione difficilia viderentur...'

Bibl. Kristeller 1963–1992, V, 567.

Modern ed. ---

EDS ---

MSS Florence, BML, Acquisti e Doni 694, s. XVI, f. 1r–341v

C.1.30.7. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Giambattista della Porta

Translated by the Italian polymath Giambattista della Porta (1535–1615) and published by him in Naples in 1605, this version includes Book I only, interspersed with Ptolemy's original text, also translated by della Porta (A.1.8). The edition of 1588, often referred to in the secondary literature since Fabricius, probably never existed (see De Vivo, XIV–XV).

Text '(ed. Naples 1605) **[PTOLEMY'S TEXT]** Claudii Ptolemaei Magnae constructionis liber primus. Prooemium. Qui legitime philosophati sunt, bene quidem, o Syre, contemplativam philosophiam ab activa mihi videntur... (3) **[THEON'S COMM.]** Theonis Alexandrini commentarius in primum mathematic<ae> constructionis Ptolemaei librum. Prooemium. Saepenumero ab auditoribus honatus, fili Epiphani, ea commentari, quae unicuique difficilia iudicarunt — ubique tum in horizontem super sphaera recta. Finis.'

Bibl. Halma 1821, XIII; R. De Vivo, *Giovan Battista della Porta: Claudii Ptolemaei Magnae constructionis liber primus, cum Theonis Alexandrini commentariis Io. Baptista Porta Neapolitano interprete*, Napoli, 2000, XIV–XVII.

Modern ed. De Vivo (from ed. Naples 1605).

EDS Naples, Felix Stelliola, 1605, sig. 1–181

MSS ---

C.1.30.8. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. David Sainclair

A translation of the complete work (with Book III in Nicolaus Cabasila's version, Book V in Pappus's version and the usual lacuna of Book XI), see C.1.30 by David Sainclair (David Sanclarus), a catholic Scot who was professor of mathematics at the Collège Royal in Paris from 1599 to his death in 1629. According to the colophon, the translation was made on the basis of the text published by Johannes Walderus

in 1535, which is evidently a mistake for 1538. Rome writes: 'Elle est la traduction de l'édition de Bâle 1538, qui s'y trouve reproduite jusque dans les moindres détails.' David Sainclair also left notes on the *Almagest* (C.1.35).

Text '(Paris, BnF, lat. 7264) Theonis Alexandrini commentarius in Magnam Cl<audii> Ptolemaei Syntaxim, quae arab<ice> dicitur Almagestus. Item Nicolai Cabasilae archiep<iscopi> Thessal<onici> in tertium eiusd Syntax<eωs>. Item Pappi Alexandrini comm<entarius> in quintum eiusdem Syntaxeωs librum. Interprete Davide San-Claro mathematicarum artium quondam professore regio in Academia Parisiensi. (1) Theonis Alexandrini prooemium. Crebrioribus adhortatus a discipulis, o fili Epiphanie, dictare in ea Mathematicorum voluminum Ptolemaei quae omnibus videntur difficilia — structurarum canonum ex proportione sub latitudine. Excudebatur in Regia Anolomasi (!) et cura Iohannis Balderi [Johannes Walderus] anno ab incarnatione domini nostri Iesus Christi 1535 [*sic* for 1538] primo quinti mensis.'

Bibl. Halma 1821, IX–X and XII–XIII; A. Rome, *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste*, I, Vaticano, 1931, VI; P. L. Rose, 'Plusieurs manuscrits autographes de Federico Commandino à la Bibliothèque Nationale de Paris', *RHS* 24 (1971), 299–307: 301 n. 5; M. N. Boyer, 'Pappus Alexandrinus', in *Catalogus translationum et commentariorum: Mediaeval and Renaissance Latin Translations and Commentaries*, eds P. O. Kristeller et al., II, Washington, DC, 1971, 212–13; Kristeller 1963–1992, III, 221; I. Pantin, 'Teaching Mathematics and Astronomy in France: The *Collège Royal* (1550–1650)', *Science & Education* 15 (2006), 189–207: 193.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7264, s. XVII, pp. I–452

C.1.30.9. Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. George Fleming and Alessandro Marchetti

This translation, which includes Book I only, was prepared by the Irishman George Fleming, a teacher of the Greek language in Pisa (see below), and corrected by Alessandro Marchetti (1633–1714), professor of philosophy and mathematics at the University of Pisa. Theon's commentary is interspersed with Ptolemy's original text, also translated by Fleming and Marchetti (A.1.9). The date of the translation is unknown, but it was at least begun by 15 May 1673, as Marchetti explains in a letter addressed to Cardinal Leopoldo de' Medici on that day: 'Questa è l'aver io cominciato a tradur dal Greco non solo il Commento di Teone Alessandrino sopra l'Almagesto di Tolomeo, il qual commento è bellissimo e copiosissimo, e per quanto io sappia non più tradotto, ma anche il testo del medesimo Almagesto, del quale noi non abbiamo altra versione che quella del Trapesunzio, che è barbarissima e oscurissima… Ora io nel tradur quest'opera ho incontrato ed incontro grandissime difficoltà. L'una è il non sapere io per ancora tanto di lingua Greca, che mi bastasse

per poterla tradur da me solo, ma questa vien da me agevolmente supita col servirmi dell'aiuto di questo Ibernese stipendiato da V.A. per insegnar la detta lingua quì in Pisa, l'altra è l'essere il testo Greco scorrettissimo in molti luoghi e pien d'errori, e l'ultima è l'essere l'opera per se stessa veramente difficilissima' (ed. A. Fabroni, *Lettere inedite di uomini illustri*, II, Firenze, 1773, 276–79: 277–78). Halma, Rome and Saccenti, who did not know the Pisa MS, were aware of this translation through literary evidence only, including the letter of 1673 — yet Halma believed that it did actually not exist. The Pisa MS also includes, as an appendix, a set of notes on Theon's commentary by Marchetti (C.1.36).

Text '(Pisa, BU, 386) Magnae constructionis Claudii Ptolomei liber primus cum commentariis Theonis Alexandrini a Georgio Fleming Hiberno ex Graeco idiomate in Latinam linguam conversus et ab Alexandro Marchetti Pisis phylosophiae professore ordinario accuratissime emendatus, cui accesserunt etiam eiusdem Alexandri Marchetti breviores quaedam animadversiones in Theonis commentarium. **[PTOLEMY'S TEXT]** Proemium. Qui exacte philosophati sunt (o Syre) optime mihi videntur speculativam philosophiae partem a practica... (2r) **[THEON'S COMM.]** Commentarius Theonis. Diutius, fili Epifani, ab auditoribus meis rogatus in difficillima quaeque Mathematicae constructionis Claudii Ptolomei aliquid dicere — pertransibunt meridianum ubique et in recta sphaera horizontem. Commentariorum Theonis Alexandrini in Magnam constructionem C<laudii> Ptolomei libri primi finis. Laus Deo.'

Bibl. Halma 1821, VIII; A. Rome, *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste*, I, Vaticano, 1931, VII; M. Saccenti, *Lucrezio in Toscana. Studio su Alessandro Marchetti*, Firenze, 1966, 59 n. 1.

Modern ed. None, but a letter by Pier Matteo Maggio, dated Florence 29 September 1703, refers to a printed version published by Marchetti, see MS [ZZ] Boncompagni 218.

EDS ---

MSS Pisa, BU, 386, s. XVII, pp. 1r–97r

C.1.31. Ercole Bottrigari, *Mathematicae operationes omnes quae in Magnae Ptolemaei compositionis astronomicae libris XIII continentur*

Over 1000 pages filled with re-calculations, including diagrams but virtually no text, of the propositions and demonstrations of the *Almagest* by Ercole Bottrigari (1531–1612), mathematician and musician in Bologna. The only known manuscript is Bottrigari's autograph, dated Bologna 1560 [Plate 28].

Text '(Bologna, BU, 326) Mathematicae operationes omnes quae in Magnae Cl<audi> Ptolemaei Pelusiensibus Alexandrini compositionis astronomicae, Almagesti vulgo nuncupatae, lib<ris> XIII continentur... Ab Hercule Bottrigario geometrice ac arithmetice propria eius manu demonstratae, Bononiae, 1560.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Bologna, BU, 326-II (213), s. XVI, f. 3r–569v

C.1.32. Francesco Maurolico, *Breviarium sive epitome brevissimae in Almagestum Ptolemaei*

A summary of the 13 books of the *Almagest* written by Francesco Maurolico in 1567 (with additions dated 1569) as part of his teaching of astronomy at the Jesuit College of Messina. The only known manuscript is Maurolico's autograph copy [Plate 29]. Maurolico in fact produced two summaries of the text, the *In Magnae Ptolemaicae constructionis libros argumenta* (f. 2v–6v) and the *Breviarium sive epitome brevissima in Almagestum Ptolemaei* (f. 25v–44v). Since the latter appears to be an extented version of the former, both texts are treated in a single entry here.

Text '(Paris, BnF, lat. 7471) (2v–6v) In Magnae Ptolemaicae constructionis libros argumenta per Maurolycum. In primum. In prologo ait: Speculationem dividi in tria genera secundum Aristotelem, scilicet naturale, mathematicum ac theologicum — in oppositione superiores imitantur. Lector vale. 10 Maii 1567. (25v–44v) Sequitur breviarium sive epitome brevissima in Almagestum Ptolemaei, sive idea Ptolemaica per Maurolycum diligentissime ordinata. (26r) Ptolemaicae traditiones ex singulis Magnae constructionis libris a<rgumenta>. Ex primo. Speculativa pars philosophiae cum in tria genera dividatur secundum Aritotelem, naturale scilicet, mathematicum ac theologicum — (43v) a Sole remotam videri posse negat. Fulsio prima... Fulsio postrema... [table, same as f. 13r above] Die Lunae 16 Iunii dum Sol medium limen fenestrae occiduus percutit M.D.LX.VII. (44r) Differentias autem diversitatum in epicyclo propter inclinationem... In 4° ante observationem trium eclipsium. Si motus Lunae... (44v) In principio 12. Si planetis altioribus — postulat utrumque modum. 6 Iun<ii> 1569.'

Bibl. M. Clagett, 'The Works of Francesco Maurolico', *Physis* 16 (1974), 149–98: 166 and 167. See also 'Edizione Nazionale dell'Opera matematica di Francesco Maurolico. XI.B: Astronomica', online introduction by G. Truffa at http://maurolico.elabor.biz/Maurolico/sezione.html?path = 11.B.

Modern ed. R. Moscheo, *I Gesuiti e le matematiche nel secolo XVI. Maurolico, Clavio e l'esperienza siciliana*, Messina, 1998, 357–62 (*In Magnae Ptolemaicae constructionis libros argumenta*) and 368–94 (*Breviarium sive epitome brevissima in Almagestum Ptolemaei*).

EDS ---

MSS Paris, BnF, lat. 7471, s. XVI, f. 2v–6v and 25v–44v

C.1.33. Henry Savile, ⟨*Annotationes in Almagesti*⟩

Henry Savile's preparatory notes for his lectures on the complete *Almagest* delivered at Merton College, Oxford, in 1570–1571, and perhaps also in the following years.

These notes are extant over three autograph copies: MSS Oxford, BL, Savile 29 (Books I–II); Oxford, BL, Savile 31 (Books III–V and VII); and Oxford, BL, Savile 32 (Books IX–XIII). In the first of these manuscripts, these notes are preceded by the full text of Savile's introductory lectures on the usefulness of mathematics, the seven mathematical sciences and the history of mathematics from Adam to Ptolemy (MS Oxford, BL, Savile 29, f. 2r–65v; see also Goulding, *Defending Hypatia*, 94–107). Savile had translated large portions of the *Almagest* and of Theon's commentary on the *Almagest* in 1568 (see A.1.7 and C.1.30.3).

Note MS Oxford, BL, Savile 30, copied by Savile's friend, John Chamber, contains notes on the Ptolemaic theory of solar motion taken directly and with almost no changes from Savile's lectures (see Goulding 1999, 139–43).

Text '(Oxford, BL, Savile 29) Mathesis unde dicta...'

Bibl. M. Feingold, *The Mathematicians' Apprenticeship. Science, Universities and Society in England, 1560–1640*, Cambridge, 1984, 47–48; Goulding 1999, 46–49 and 125–34; R. Goulding, *Defending Hypatia. Ramus, Savile, and the Renaissance Rediscovery of Mathematical History*, Dordrecht-Heidelberg, 2010, 91–94 and 187–89.

Modern ed. ---

EDS ---

MSS Oxford, BL, Savile 29, s. XVI, f. 65v–140v
Oxford, BL, Savile 31, s. XVI, f. 1r–59v
Oxford, BL, Savile 32, s. XVI, f. 1r–73v

C.1.34. Jerónimo Muñoz, ⟨*Commentum in Theonem*⟩

This commentary is part of Jerónimo Muñoz's translation of Theon's text. See C.1.30.5.

C.1.35. David Sainclair, ⟨*Annotationes in Almagesti et Theonem*⟩

A set of notes which follow the translation of Theon's commentary by David Sainclair in the only known manuscript (C.1.30.8). These notes can be identified as follows: a new translation of Ptolemy's preface to the *Almagest* (ch. I.1) (pp. 1–3); an alternative translation of Theon's preface (pp. 3–8); and notes on various parts of Theon's commentary, including at least from Books I–III and V (pp. 9–27). David Sainclair is named as the author of the third section (p. 9), but it should be noted that two or three hands copied this section, one neat hand for pp. 9–15 (the same hand that copied pp. 1–8), and one or two sloppy hands for pp. 19–27 (pp. 16–18 are blank).

Text '(Paris, BnF, lat. 7264) (II/1) Cl<audii> Ptolemaei praefatio. Sunt haec ni fallor tentamenta nitidioris et accuratioris tran<s>talionis quam forte postmodum aggressus fuerat

David Sanclarus... Pulcherrime mihi videntur qui ingenie philosophati sunt theoreticam philosophia partem ab activa separasse... (II/3) Theonis Alexandr<ini> prooemium. Frequentiori meorum auditorum exhortatione incitatus, fili mi Epiphanie... (II/9) Davidis Sanclari notae in Ptolemaeum et Theonem. Quicumque generoso ingenii spiritu ad altiora — XIII. Canonica prius dictorum angulorum et periphenarum in singulis climatibus explicatio.'

Bibl. Halma 1821, IX; Kristeller 1963–1992, III, 221.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7264, s. XVII, second part, pp. 1–27

C.1.36. Alessandro Marchetti, *Notae seu totius breves animadversiones in commentarium Theonis Alexandrini in librum primum Magnae constructionis Claudii Ptolomei*

A set of notes discussing passages of Theon's commentary on the first book of the *Almagest*. In the Pisa MS, these notes follow immediately the translation of the text by George Fleming and Alessandro Marchetti (C.1.30.9) and are perhaps in Marchetti's hand. They end abruptly at the bottom of f. 99v, leaving no clue as to how many pages may be missing. The extant section discusses two of Theon's passages from chs 3 and 9 (= chs 4 and 10 in Heiberg's edition of the *Almagest*), found on pp. '49' and '114' respectively, i.e. f. 24r and 56v in the current foliation of the manuscript.

Text '(Pisa, BU, 386) Alexandri Marchetti notae seu totius breves animadversiones in commentarium Theonis Alexandrini in librum primum Magnae constructionis Claudii Ptolomei. Pag. 49. Conatur Theo Alex<andrinus> demonstrare quod si supra circulum et eius diametri quadratum... (99r) Pag. 114. Notandum quod in Greco codice deficere — numeri qui reperiuntur in tabula Pythagorica, qu...'

Bibl. ---

Modern ed. ---

EDS ---

MSS Pisa, BU, 386, s. XVII, f. 98r–99v

C.2. Commentaries on the *Quadripartitum*

C.2.1. Gerard of Cremona, ⟨*Commentum in Quadripartitum*⟩

A lemmatic commentary on *Quadripartitum* III.10, dealing with the directions and the length of life, in Plato of Tivoli's translation (A.2.1). This commentary is extant

as a continuous and stand-alone text in a single manuscript (Oxford, BL, Digby 57), but it also occurs, in part or in full, as marginal glosses in nine copies of the *Quadripartitum* in Plato's translation (Brussels, BR, 18678–18681, f. 82r–85r; Cambrai, BM, 955, f. 92v–99v; Cesena, BCM, Plut. S.XXVII.3, f. 82r–84r; Paris, BnF, lat. 7302, f. 51v–62v (where the glosses have been inserted into the text); Pommersfelden, GSB, 60, f. 78r–88v; Salamanca, BU, 2051, f. 48r–49v; Vatican, BAV, Pal. lat. 1420, f. 20v–22v; Vatican, BAV, Reg. lat. 1285, f. 123r–126r; and Vatican, BAV, Vat. lat. 7616, f. 26r–29v). The text is anonymous, but the opening 'Sensus huius litere', as well as the style and modus operandi of the exposition are distinctive of Gerard of Cremona's commentaries. The nine above-mentioned manuscripts contain many more glosses, also clearly by Gerard of Cremona, which cover altogether most of the *Quadripartitum*, but it is unclear whether Gerard produced a continuous and stand-alone commentary on the complete text, as he did for the *Almagest* (C.1.3). The same kind of glosses also occur in several manuscripts of Abuiafar Hamet filius Joseph's *Commentum in Centiloquium* in Plato of Tivoli's translation (see C.3.1.1, Note 5). Gerard knew and used ʿAlī ibn Riḍwān's commentary on the *Tetrabiblos* (see C.2.2), which he probably accessed through the Arabic, cf. Oxford, BL, Digby 57, f. 165v ('Dicit Haly quod isti male faciunt...'), 166v ('Et hoc idem voluit Haly qui hunc locum exposuit...' and 'Dicit Haly quod ex hiis verbis habetur quod direction...') and 167r ('Dicit Haly quod ideo Ptholomeus dimisit sextilem aspectum...' and 'Dicit Haly quod si latitudo unius fuerit septentrionalis...').

Text '(Oxford, BL, Digby 57) Capitulum 10. De spatio vite. Sensus huius litere est quod vita continuatur et durat per loca plegiorum (!) et per planetas eadem loca disponentes, id est in eisdem locis maiorem dignitatem habentes — complexionis eiusdem hominis.'

Bibl. S. Falk, 'Understanding the Length of Life: The Glosses on Plato of Tivoli's Translation of the *Quadripartitum*', *SCIAMVS* 22 (2022), 195–251; Georges (forthcoming).

Modern ed. Critical edition and English translation by Falk.

EDS ---

MSS Oxford, BL, Digby 57, s. XIV, f. 165r–171r

C.2.2. Haly Abenrudian, *Glosa super Quadripartito Tholomei*

ʿAlī ibn Riḍwān's *Tafsīr al-Maqālāt al-arbaʿ fī l-qaḍāʾ bi-l-nujūm ʿalā l-ḥawādith* ('Commentary on the Four Treatises on the Judgement of Events by the Stars'), translated, via a Spanish intermediary, by Egidius de Tebaldis of Parma at the court of King Alfonso X in Toledo after 1257 (Alfonso X is called 'king of the Romans' in Egidius's preface), and perhaps between 1271 and 1275 (Procter, 26). The *Tafsīr* consists of an extensive lemmatic commentary on the *Tetrabiblos* which includes

Ptolemy's original text in full, in the translation of Ibrāhīm ibn al-Ṣalt revised by Hunayn ibn Iṣḥāq. ʿAlī ibn Riḍwān kept Ptolemy's original book and chapter division while introducing at the same time his own division of each of the four books (here called *partes*) into three treatises (*tractatus*), something which caused some confusion in the general organisation of the work. Six manuscripts (Cracow, BJ, 593; Cracow, BJ, 1862; Cracow, BJ, 1967; Klagenfurt, ADG–BM, XXXI b 10; Nürnberg, SB, Solg. Ms. 31.4º; and Wolfenbüttel, HAB, 78.2 Aug. 8º) preserve Ptolemy's text only and omit the commentary. Egidius's translation is the source text of commentaries C.2.6–11 and C.2.13, and was also used in commentaries C.2.18 and C.2.21. Independently of Egidius's translation, ʿAlī ibn Riḍwān's commentary was known to Gerard of Cremona (C.2.1) and Alvaro de Oviedo (C.2.3).

Note 1 The text closes with Haly Abenrudian's appendix on examples of interpretation of three nativities, including his own (inc. 'Volo in hoc loco dare tibi exemplum trium nativitatum…'). This appendix occurs on its own in five manuscripts (Cracow, BJ, 3224; Oxford, BL, Ashmole 369; Vatican, BAV, Barb. lat. 172; Vatican, BAV, Pal. lat. 1445; and Vienna, ÖNB, 3105), which have been counted in the list below. On the other hand, the horoscope of Haly's nativity occurs sometimes alone, for instance in MS Paris, BnF, fr. 1083, s. XV, f. 216r (with the mention 'Figura nativitatis Hali que deberet esse in Quadripartiti fine'), in Girolamo Cardano's *Liber de exemplis geniturarum* (ed. Nürnberg, Johannes Petreius, 1547, sig. 118v) and in Francesco Giuntini's *Speculum astrologiae* (ed. Lyon, Philippus Tinghus, 1581 and 1583, sig. 443, see C.2.34). These witnesses have been ignored in the list below. The three horoscopes given in Haly's appendix have been analysed by J. D. North, *Horoscopes and History*, London, 1986, 84–88.

Note 2 In MS Oxford, NC, 282, Haly's appendix (Note 1 above) is followed by an 'additional note' (inc. 'Volui iudicare utrum actor iste iudicaret…') by an astronomer who recalculated the planetary positions of Haly's nativity horoscope. The same note, albeit in a much shorter version, occurs in 13 other manuscripts (Cambridge, UL, Kk 4.7; Chicago, NL, Ayer Collection 744; Florence, BNC, Magliabech. XX.22; Klagenfurt, ADG-BM, XXXI b 10; Leipzig, UB, 1474; Paris, BS, 593; Venice, BNM, lat. VIII.16; Vienna, ÖNB, 2271; Vienna, ÖNB, 2311; Vienna, ÖNB, 3105; Wroclaw, BU, R 44; and the two main manuscripts of Conrad Heingarter's *Commentum Quadripartiti Ptholomei* (C.2.10): Paris, BnF, lat. 7305 and Paris, BnF, lat. 7432) and in the two early printed editions. The earliest of these manuscripts is Vienna, ÖNB, 2311, a copy glossed by William of Saint-Cloud (*fl.* 1285–1292 in Paris), who is also likely to be the author of the additional note. See Steel/Vanden Broecke 2018, 78–79 (with edition, 78 n. 230); and C. P. E. Nothaft, 'Henry Bate's Tabule Machlinenses. The Earliest Astronomical Tables by a Latin Author', *AS* 75 (2018), 275–303: 286–87.

Note 3 Most manuscripts and the two early printed editions have a lacuna of over 4000 words in ch. II.3, which resulted in the loss of the description of the first three quarters of the earth, together with their triplicity and regions. The missing section was meant to occur between two of Ptolemy's lemmas as follows: 'que est circa medium concordet cum Mercurio. <*missing section.*> Trigono qui est inter meridiem et occidens, et est trigonus Cancri, Scorpionis et Piscis...' (Paris, BnF, lat. 16653, f. 49v), which corresponds to pp. 132–46 of the Greek text in Robbins's edition and to pp. 98–113 in Hübner's edition. The origin of the lacuna remains to be investigated, but the gap was filled in several copies, either with the corresponding section borrowed from Plato of Tivoli's translation 'Necesse est igitur secundum hunc ordinem ut partes que sunt inter septentrionem et occidentem — boneque societatis atque mercationis liberalitatis etiam fidelitatis' (MSS Cambridge, UL, Kk 4.7, in the margin; Florence, BNC, Magliabech. XX.22; Paris, BS, 593; Venice, BNM, lat. VIII.16; Vienna, ÖNB, 2311, in the margin; Wroclaw, BU, R 44; as well as the copy of commentary C.2.13 in Cracow, BJ, 1963) or with a new translation, whose incipit and explicit read 'Ptholomeus. Oportet ergo propter hanc ordinationem quod primum quartum quod est partes, que sunt inter septentrionem et occidens habitationis terre — iste sunt provincie Antiochie et Lodia et Quillia et Macollia ipse partes de Cartoz et sui termini' (MSS Chicago, NL, Ayer Collection 744, f. 71ra–76vb, and Limoges, BM, 9, f. 183r–186r; as well as Conrad Heingarter's commentary (C.2.10) in MSS Paris, BnF, lat. 7305, f. 109v–118v, and Paris, BnF, lat. 7432, f. 38r–42r). This new translation was prepared by Alfonsus Dyonisii of Lisbon (Afonso de Dinis, d. 1352) on the basis of his own Spanish exemplar, as we learn from a long addition by him, which occurs at the end of the text (after the 'additional note' discussed in Note 2 above) in two manuscripts: Cambridge, UL, Kk 4.7, f. 88rb–91ra; and Chicago, NL, Ayer Collection 744, f. 227ra–233va ('Quia secundum Ptholomeum in secunda parte Quadripartiti, capitulis primo et quinto...'). In this addition, Alfonsus gives biographical information about Haly Abenrudian (whom he credits with a commentary on the *Almagest*, see L.4 in Appendix I), criticises Egidius de Tebaldis for his ignorance of the Spanish language due to his Italian background and for his numerous translation mistakes — which Alfonsus says he corrected in the margins of his own copy —, and proceeds with his translation of the missing section, which is given in full (thus the new translation occurs twice in the Chicago MS). Alfonsus presents himself as physician and *clericus* to King Alfonso IV of Portugal (reigned 1325–1357) and as a student of Robertus de Bardis, master of theology and chancellor of the University of Paris. Since Robertus de Bardis was chancellor from 1336 to his death in 1349, Alfonsus of Lisbon must have worked on his translation sometime in those years and more precisely, in all likelihood, between 1342 and 1345, when he is attested in Paris as

a student in theology. The MS glossed by Alfonsus has not been found, but at least two of his glosses occur in the margins of MS Paris, BnF, lat. 16653 (f. 49v and 80v), a manuscript that had been kept in the library of Sorbonne since 1306 (from Peter of Limoges's bequest), which confirms at the same time that Alfonsus worked on the text in Paris. The second gloss (f. 80v) explains indeed the meaning of a misunderstood Spanish expression. In the first gloss (f. 49v), found at the place of the missing section, the author ('ego Alfonsus de Portugalia') says that six folia of paper are missing here and that he supplied his translation from the Spanish in the right place in his own copy. The same gloss, with variants, reappears in four manuscripts: Nürnberg, SB, Cent. VI 22, f. 47ra; Oxford, BL, Digby 179, f. 52v, in the margin; Oxford, NC, 282, f. 62v; and Paris, BnF, lat. 7304, f. 41v–42r. The situation regarding ch. II.3 has been checked in all manuscripts, except London, BL, Royal 12.F.VII and Paris, BnF, lat. 7303, of which we do not have reproductions. Alfonsus's addition is also briefly discussed by D. Pingree, 'Between the *Ghaya* and *Picatrix I*: The Spanish Version', *JWCI* 44 (1981), 27–56: 38 and n. 22; and J. F. Meirinhos, 'Afonso de Dinis de Lisboa: percurso de um filósofo, médico, teólogo, tradutor e eclesiástico do século XIV', *Península: Revista de Estudos Ibéricos* 4 (2007), 47–64: 54 (no. 2) and 57.

Note 4 At the end of Book II, Haly added a series of 35 astrological aphorisms said to derive from a *Liber de accidentibus* attributed to Hermes: 'Ego autem cognovi pro bono addere in hoc tractatu verba Hermetis, qui dixit in libro suo de accidentibus res de quibus iuvare nos possumus in pronosticationibus universalibus. Dixit Hermes: Ordina significatores primo fortiorem — festinabuntur lites et non prolongabuntur. Hic enim adiunximus multa de dictis Hermetis, de quibus proficies si Deus voluerit.' This addition was later excerpted and circulated independently from the rest of the work under the name of Hermes in seven fourteenth- and fifteenth-century manuscripts (these manuscripts have not been taken into account here). On this addition, see the study and critical edition by Lucentini, 'Il *Liber de accidentibus*'. The excerpted *Liber de accidentibus* has also received a critical edition by P. Lucentini, '*Liber de accidentibus*', in *Hermetis Trimegisti Astrologia et Divinatoria*, Turnhout, 2001, 139–73.

Text '(Paris, BnF, lat. 16653) (1r–1v) **[TRANSLATOR'S PREFACE]** Dixit Egideus de Tebaldis Lonbardus de civitate Parmen<si>: Scire et intelligere gloriosum est quia omnis sapientia est a Deo, eius igitur est anima gloriosa que intelligit et discernit et Deus illum vere diligit et elegit in quo posuit superioris scientie intellectum — tua fama vigebit cunctis temporibus immortalis. (1v–3r) **[HALY'S PREFACE]** Tractatus primus glose Aly Abenrudiani super prima parte libri Quadripartiti Tholomei Pheludiani. Dixit Aly: Verba que dixit sapientissimus Ptholomeus in arte iudiciorum astronomie super hiis que accidunt glosare volentes dicimus quod iudicum stellarum est ars a principiis certis — et glosam nostram ab alia ita quod liber bene divisus sit.

(3r–42v) **[BOOK I]** Capitulum primum primi tractatus libri 4 partium Tholomei. [TEXT] Res, Misori, quibus perficiuntur pronosticationes accepte de astronomia maiores et nobiliores sunt due. [COMM.] Ptholomeus inspexit in omnibus maneriebus prognosticacionum et illas phisicorum defectivas invenit — [TEXT] ... et quando non fuerint in aliquibus horum statuum sunt debiles et virtutem non habent. [COMM.] ... tu autem inspicias partem quam habet quilibet in virtute et misceas ac iudices secundum illud. Hic perficitur prima pars libri Tholomei cum tertio tractatu glose Aly Abenrudiani. (42v–80v) **[BOOK II]** Tractatus primus glose Aly super secundo tractatu secundi libri Quadripartiti Tholomei. [HALY'S INTRODUCTION] Dixit Aly: In primis tractatibus nostris monstravimus per dicta Tholomei quod rationabiliter convenit ut hoc in hac arte confidat... (43r) [TEXT] Capitulum primum de divisione universali huius artis. Dixit Tholomeus: Bene sufficit nobis id quod universaliter locuti sumus super his in quibus debet inspicere in modo propositi generalis pro particularibus... [COMM.] Vult dicere quod ea que dixit in prima parte sunt generalia omnibus partivus huius artis — (79r) [TEXT] ... prognosticationes que erunt in nativitatibus hominum secundum quod huic ordinationi convenit. (80v) [COMM.] ... hic enim adiunximus multa de dictis Hermetis de quibus proficies si Deus voluerit. Et expedit ut bene inspicias et intelligas ea que tibi distinximus in istis duabus partibus, et si intellexeris ea bene scies id quod accidet in mundo de pauco vel multo cum auxilio summi Dei. Hic perficit glosa Haly Abenrudiani super secunda parte Quadripartiti Tholomei. (80v–128r) **[BOOK III]** Incipit primus tractatus glose Aly Abenrudian super tertia parte Quadripartiti Tholomei et est septimus tractatus tractatuum glose. [HALY'S INTRODUCTION] Dixit Aly: Iam glosavimus primam partem et secundam 6 (?) tractatuum et demonstravimus in eis rationes verborum Tholomei... (81r) [TEXT] Tholomeus: Postquam narravimus ante et inspeximus in accidentibus generalibus quia est res conveniencior ut proponatur ostendere modo... [COMM.] Aly: Accidentia generalia sunt (81v) que accidunt unigenti vel pluribus in aliquo tempore sicut terremotus — (128r) [TEXT] ... ad magnum usum et ad magnum augmentum de illis. [COMM.] ... Similiter si fuerint infortune potenciores fortunis. Et postquam hic completur tertia pars Quadripartiti Tholomei, completur hic similiter nonus tractatus glose Aly Abenrrudiani (!) physici super hoc eodem Quadripartito. (128r–159r) **[BOOK IV]** Hic incipit 10 tractatus glose Aly Abenrudiani et est primum glose super quartam partem Quadripartiti Tholomei. [HALY'S INTRODUCTION] Dixit Haly: Tres partes huius libri glosavimus in 9 tractatibus glose monstrando et declarando quam brevius potuimus... (128v) [TEXT] Tholomeus. Dixit Tholomeus: In rebus hominis potest iudicari de hiis que sunt ante nativitatem et eadem hora nativitatis et res accidentes post nativitatem... [COMM.] Aly: Res de quibus potest homo iudicare existentes ante nativitatem sunt iudicare de patribus et fratribus — (159r) [TEXT] Tholomeus: Et postquam in modo universali perfecimus iudicium nativitatum finem in hoc loco huic libro imponere conveniens extimamus. [COMM.] Haly: Quod dixit in modo universali vult dicere quod quicquid posuit in hoc libro sunt regule et radices quibus ars ista componitur. Explicit. Benedictus sit Deus gloriosus et sublimis et Deus illum dirigat qui scripsit. Amen. (159r–163v) **[HALY'S APPENDIX]** Volo in hoc loco dare tibi exemplum trium nativitatum ut melius intendas quicquid locuti sumus in eis, et prima est nativitas mea — hec sunt que tibi glosavi in quibus studium et mentem opponas et Deus te dirigat in viam rectam.'

Bibl. Steinschneider 1904, 3 (no. 9b); Björnbo 1909, 99 (no. 17); Haskins 1927, 110; E. S. Procter, 'The Scientific Works at the Court of Alfonso X of Castille: The King and his

Collaborators', *The Modern Language Review* 40 (1945), 12–29: 21–22 and 24–26; J. Muñoz Sendino, *La Escala de Mahoma. Traduccion del árabe al castellano, Latin y francés, ordenada por Alfonso X el Sabio*, Madrid, 1949, 92–96; Carmody 1956, 18 (no. 10f) and 21 (no. 41 = Haly's appendix); P. Lucentini, 'Il *Liber de accidentibus* ermetico e il commento di Haly Abenrudianus al *Tetrabiblos* di Tolomeo', in *Ob rogatum meorum sociorum. Studi in memoria di Lorenzo Pozzi*, eds S. Caroti, R. Pinzani, Milano, 2000, 93–122; J.-P. Boudet, 'Ptolémée dans l'Occident medieval: roi, savant et philosophe', *Micrologus* 21 (2013), 193–217: 200–04; G. Bezza, *Claudio Tolemeo: Il secondo libro del Quadripartitum con il commento di 'Alī ibn Riḍwān. Introduzione, traduzione e note*, Lugano, 2014; Burnett 2024. On 'Alī ibn Riḍwān and his commentary, see also Sezgin 1974–1979, VII, 44 (no. 1g); F. Rosenthal, *The Classical Heritage in Islam*, London, 1992 (first ed. 1965), 243–46; J. A. Seymore, *The Life of Ibn Riḍwān and His Commentary on Ptolemy's 'Tetrabiblos'*, PhD dissertation, Columbia University, 2001.

Modern ed. None, except for the translator's preface, ed. Lucentini, 99–100, and for Haly's addition at the end of Book II (Hermes's *Liber de accidentibus*, see Note 4 above), ed. Lucentini, 104–09 (from 16 MSS and ed. Venice 1493). The second book has been translated into Italian and commented upon by Bezza (on the basis of ed. Venice 1493, which also includes Ptolemy's lemmas in Plato of Tivoli's translation). English translation of the Arabic text of Haly's preface, ch. I.1 and Haly's appendix by Seymore, 204–43.

EDS Venice, Bonetus Locatellus, 1493, sig. 2r–106v (with lemmas of Plato of Tivoli's translation)
Venice, Octavianus Scotus, 1519, sig. [aa$_4$]r–96v (with lemmas of Plato of Tivoli's translation)

MSS Aberdeen, UL, 364, s. XV, f. 2ra–148vb
Berlin, SBPK, Hdschr. 95, s. XV, f. 147v (III.13)
Berlin, SBPK, lat. fol. 55 (961), s. XIV, f. 1ra–211va
Cambridge, UL, Kk 4.7 (2022), s. XIV, f. 4ra–91rb
Chicago, NL, Ayer Collection 744 (Boncompagni 307), s. XV, f. 1ra–234va
Cracow, BJ, 587, s. XV, f. 1ra–156vb
Cracow, BJ, 593, s. XV, f. 1r–66v and 73r–145v (without Haly's comm.)
Cracow, BJ, 1862, s. XV, pp. 1–75 (Books II–IV, without Haly's comm.)
Cracow, BJ, 1967, s. XV–XVI, f. 1r–60v (without Haly's comm.)
Cracow, BJ, 3224, s. XVI, pp. 239–266 (Haly's appendix)
Erfurt, UFB, Dep. Erf. CA 2º 299, s. XIII–XIV, f. 1ra–93vb
Erfurt, UFB, Dep. Erf. CA 2º 379, s. XIV, f. 1ra–92va
Erfurt, UFB, Dep. Erf. CA 2º 394, s. XIV, f. 2ra–57vb (truncated)
Escorial, RBMSL, e.III.4, s. XIV, f. 5ra–130rb
Florence, BNC, Magliabech. XX.22, s. XIV, f. 21ra–204vb
Klagenfurt, ADG–BM, XXXI b 10, s. XV, f. 1r–73v (without Haly's comm.)
Leipzig, UB, 1474, s. XV, f. 1ra–138va
Limoges, BM, 9 (28), s. XV, f. 144r–269r
London, BL, Additional 10362, s. XIV, f. 36r–37r (II.13)
London, BL, Royal 12.F.VII, s. XIV, f. 1ra–218vb (breaks off in IV.10)
Nürnberg, SB, Cent. VI 22, s. XIV, f. 13ra–155vb (I.1–2 missing)

Nürnberg, SB, Solg. Ms. 31.4º, s. XV, f. 47r–131r (without Haly's comm.)
Oxford, BL, Ashmole 369, s. XV, f. 17v–20v (Haly's appendix)
Oxford, BL, Bodley 597, s. XV, f. 1r–102v
Oxford, BL, Digby 114, s. XIV, f. 108r–164v (I.19-II)
Oxford, BL, Digby 179, s. XIV, f. 1ra–170vb
Oxford, CCC, 101, s. XV, f. 1ra–172vb
Oxford, NC, 282, s. XV, f. 1r–198r
Paris, BnF, lat. 7302, s. XV, f. 133v–144v (II.1–3)
Paris, BnF, lat. 7303, s. XV, f. 4va–103va
Paris, BnF, lat. 7304, s. XV, f. 1r–119v
Paris, BnF, lat. 7306, s. XV, f. 15r–16r (II.13)
Paris, BnF, lat. 16653, s. XIII–XIV, f. 1r–163v
Paris, BnF, lat. 16659, s. XV, f. 1v–2v (fragment from III.15)
Paris, BS, 593, s. XV, f. 2ra–187vb
St Petersburg, RNB, lat. Q.XVIII.116, s. XV, f. 2r–72v (Haly's comm. incomplete)
Vatican, BAV, Barb. lat. 172, s. XIV, f. 187vb–189vb (first part of Haly's appendix)
Vatican, BAV, Pal. lat. 1390, s. XIV, f. (42r–73r) (Haly's appendix and excerpts II.10–12)
Vatican, BAV, Pal. lat. 1419, s. XV, f. 1ra–112rb (breaks off in II.8)
Vatican, BAV, Pal. lat. 1445, s. XV, f. 4r–9r (Haly's appendix)
Venice, BNM, lat. VIII.16 (3382), s. XV, f. 1ra–104rb
Venice, MCC, Correr 1035, s. XV, f. 147r–302v
Vienna, ÖNB, 2271, s. XIV–XV, f. 1ra–422va
Vienna, ÖNB, 2311, s. XIII, f. 1ra–95rb
Vienna, ÖNB, 3105, s. XV, f. 33vb–36vb (Haly's appendix and additional note)
Vienna, ÖNB, 3124, s. XIV–XV, f. 83r–84r (III.3)
Vienna, ÖNB, 5288, s. XV, f. 1ra–280rb
Wolfenbüttel, HAB, 78.2 Aug. 8º (3778), s. XV, f. 69r–101r (I–II.3, without Haly's comm.)
Wroclaw, BU, IV.F.22, s. XIV–XV, f. 1ra–162vb (breaks off in IV.9)
Wroclaw, BU, R 44, s. XV, f. 1ra–133rb

C.2.3. Alvaro de Oviedo, *Haly Expositiones in Quadripartitum*

An epitome of Haly Abenrudian's commentary on the *Quadripartitum* omitting Ptolemy's lemmas. The text covers Books IV, III, I and II (in this order) and does not seem to be based on Egidius de Tebaldis's translation (C.2.2). The only known witness is in the hand of the philosopher and astrologer Alvaro de Oviedo and is found in a manuscript mainly copied by him in Italy and in Toledo between 1279 and 1282 [Plate 6]. Alvaro may have worked from the (lost) Spanish version of the text, as he is known to have done in the case of Haly Abenragel's *De iudiciis astrorum* (ʿAlī ibn Abī al-Rijāl's *Al-Bāriʿ fī aḥkām al-nujūm*), which he translated into Latin on the basis of the Spanish version made by Jehūdā ben Moshe. Alvaro also glossed two other Ptolemaic manuscripts, Madrid, BN, 10009 and Madrid,

BN, 10053, the latter of which contains two versions of the *Quadripartitum* (A.2.1 and A.2.2), something which may explain why the present epitome covers Haly's commentary only and not Ptolemy's text. *Haly Expositiones in Quadripartitum* contains an additional chapter consisting of Pseudo-Ptolemy's *Liber proiectionis radiorum stellarum* (B.6) followed by a note on the projection of rays said to have been borrowed from Haly's commentary on the *Quadripartitum*.

Text '(Madrid, BN, 10063) Expositiones in quartum Quadripartiti et sunt sententie Haly. Res igitur in quibus ea que ante partum: De hoc quod ea que ante partum sunt super parentes et fratres — (22ra) quia vapores iam incipiunt annullari et desiccari primum. Explicit. Domino Ihesu Christo gratie infinite. Amen, amen, amen. (22rb) [ADDITIONAL CHAPTER] Cum proiectionem radiorum stellarum scire volueris, scias gradus ascendentis... Hunc eundem modum docet Haly super textum (?) Quadripartiti. Dixit Haly: Scias quod hec equatio accipitur per 4 angulos proportionaliter, cuius primus est medietas arcus diei, scilicet 6 hore — prime Quadripartiti.'

Bibl. Millàs Vallicrosa 1942, 158–59; R. Gonzálvez Ruiz, *Hombres y Libros de Toledo (1086–1300)*, Madrid, 1997, 614–15; P. Lucentini, 'Il *Liber de accidentibus* ermetico e il commento di Haly Abenrudianus al *Tetrabiblos* di Tolomeo', in *Ob rogatum meorum sociorum. Studi in memoria di Lorenzo Pozzi*, eds S. Caroti, R. Pinzani, Milano, 2000, 93–122: 102. On Alvaro de Oviedo, see Millàs Vallicrosa 1942, 34–36 and *passim*; Gonzálvez Ruiz, *Hombres*, 602–16; Hernández/Linehan 2004, 310–11 and *passim*.

Modern ed. *---*

EDS *---*

MSS Madrid, BN, 10063, s. XIII, f. 15ra–22rb

C.2.4. ⟨*Epitome in Quadripartitum* (I)⟩

An epitome of the *Quadripartitum* in Plato of Tivoli's translation (A.2.1) and of Pseudo-Ptolemy's *Liber proiectionis radiorum stellarum* (B.6). The only known witness, which may well be the autograph, was copied in northern Italy around the middle of the fourteenth century, perhaps more precisely in or around Padua between 1338 and 1345. Book I opens with a detailed account of ch. 9 on the fixed stars, followed by chs 4–8, 10–23 and 2–3 (ch. 1 is ignored). The other books present the chapters in regular order.

Text '(Vienna, ÖNB, 5417) (75va–75vb) **[CHAPTER INDEX]** Liber primus. Capitulum primum in colectione intellectus scientie iudiciorum astrorum — 9. In divisione operum nati in vita. Scientia proiectionis radiorum. (76ra–78ra) **[BOOK I]** 9. Aries. Prima pars. Proprietas et virtutes stellarum in vertice Arietis existentium est similis virtuti Saturni et Martis cum sunt simul — haberi eam summe desiderare debemus. (78ra–81rb) **[BOOK II]** Liber secundus. Quoniam due sunt pronostice principales partes, una quarum est qua sciuntur accidentia magna future — qualitates illis coloribus similes iudicabunt. (81rb–86vb) **[BOOK III]** Liber

tertius. Prohemium. Quemadmodum ad... (?) celesti qu... (?) ...a (?) moventur universales effectus proveniunt — et augmentum proptinus (?) adiuvabit. (86vb–89vb) **[BOOK IV]** Liber quartus. Prologus. De rebus que ante partum et in partu et post partum sunt — iam autem rebus nativitatum cum libri complemento terminum imponamus. (89vb) **[PSEUDO-PTOLEMY, *LIBER PROIECTIONIS RADIORUM STELLARUM*]** Ut radiorum proiectionem invenias, quere distanciam — est locus radiationis equate.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Vienna, ÖNB, 5417, s. XIV, f. 75va–89vb

C.2.5. *Responsum Tholomei ad sciendum utrum nativitas fuit masculina aut feminina*

An explanation of *Quadripartitum* III.6, on whether a nativity is masculine or feminine. The earliest manuscript (Oxford, BL, Ashmole 345) was copied in England in the fourteenth century.

Text '(Oxford, BL, Ashmole 345) Responsum Tholomei ad sciendum utrum nativitas fuit masculina aut feminina. Dicit Tholomeus: Huius rei causa maxime proprie fuit a nativitate propter magnam convenientiam qui habet nativitas —— et similiter sunt descensiones opposite hiis, ut patet in figuris.'

Bibl. Carmody 1956, 21 (no. 42).

Modern ed. ---

EDS ---

MSS Cambridge, PC, 204, s. XV, f. 68rb–68vb
Oxford, BL, Ashmole 345, s. XIV, f. 3v–5r

C.2.6. Albertus de Magna Opatow (?), ⟨*Commentum in Quadripartitum*⟩

A commentary on the *Quadripartitum* in Egidius de Tebaldis's translation (A.2.5). The only known copy is Albertus de Magna Opatow's notebook [Plate 13], one section of which is dated 1447, the year when he earned his master's degree at the University of Cracow. Rosińska wondered whether Albertus was the author of the commentary or only the scribe. The chaotic arrangement of the material suggests that this is an author's copy, but it is also possible that the commentary derives from university lectures. Two scholars are known to have lectured on astronomy at Cracow in those years, Martinus Krol de Zurawica in 1445 (his *Algorismus minutiarum* is preserved in the notebook, f. 41r–56r) and Andreas Grzymala *c.* 1447 (see C.3.9). Ptolemy's text

(omitting Haly Abenrudian's commentary) has been copied in the centre of the page and the commentary in the margins, although this pattern varies and the dividing line between the text and the commentary is not always easy to discern. While Haly's commentary has been ignored, Albertus (or his teacher) used it and commented on it, as is already clear in the preface and in the opening sentence 'Hali glozat...'. Albertus de Magna Opatow, also known as Albertus or Albertinus Polonus, was a student at the University of Cracow from 1442 to 1447, studied medicine at the University of Bologna in the 1450s and later became professor of medicine at Cracow.

Text '(Cracow, BJ, 1859) **[PREFACE]** Principiatur thema egregii Hali super Quadripartitum sapientissimi Ptolomei in quo textualiter vademus in prologo et sequitur thema in hec verba, unde dicit Egidius: Scire aliquid laus est... **[TEXT]** Res, o Mizori, quibus perficiuntur prenosticationes accepte de astronomia, maiores et nobiliores sunt due. **[COMM.]** Hali glozat "o Mizori" id est "o mi domine" — ut finem libro imponemus. Pro quo ait Deus benedictus in secula seculorum. Amen.'

Bibl. Rosińska 1984, nos 1635 and 1854; Markowski 1990, 31. On Albertus de Magna Opatow (Wojciech z Opatowa), see A. Birkenmajer, 'Les débuts de l'école astrologique de Cracovie', in A. Birkenmajer, *Études d'histoire des sciences en Pologne*, Wrocław, 1972, 469–73: 472 [originally published in Polish in 1936]; Markowski 1990, 20–21; M. Markowski, 'Repertorium bio-bibliographicum astronomorum Cracoviensium medii aevi: Adam Tussinus de Tarnovia — Andreas Grzymała de Posnania', *Studia Mediewistyczne* 27.1 (1990), 111–63: 138–40; P. W. Knoll, *'A Pearl of Powerful Learning'. The University of Cracow in the Fifteenth Century*, Leiden-Boston, 2016, 386; Kaliszuk/Pieniądz 2019, 957–58 (no. 969).

Modern ed. ---

EDS ---

MSS Cracow, BJ, 1859, s. XV, f. 65r–138r

C.2.7. Petrus Gaszowiec, *Tabula de naturis particularibus signorum et facierum*

A table summarising *Quadripartitum* II.11, on the influence of the zodiacal signs and decans on the weather, drawn up by the astronomer and physician Petrus Gaszowiec, who lectured at the University of Cracow from 1456 to his death in 1474. According to Johannes de Glogovia, Petrus Gaszowiec drew up this table in 1463 (see Note below). The source text is Egidius de Tebaldis's translation (A.2.5).

Note The *Tabula* was reused by Johannes de Glogovia in his *Tractatus preclarissimus in iudiciis astrorum de mutationibus aeris* (1490), or Book II of his *Summa astrologie*, where it forms *Differentia* 37: 'Differentia trigesima septima. Naturas particulares signorum et facierum comprehendens quas ponit Ptholomeus secundi Quadripartiti, capitulo XI, rectificate anno domini 1463 per venerabilem virum

magistrum Petrum de Gaschowycz medicine doctorem, astrologice scientie virum doctissimum cuius anima requiescat in pace. Totum signum Arietis facit tonitrua et relanpagos — (Pisces) septentrionales facientes grandines <de natura> Saturni' (ed. Cracow, Florianus et Wolfgangus, 1514, sig. g_{i}r–g_{ii}r).

Text '(Munich, BSB, Clm 51) Nature particulares signorum et facierum quas ponit Ptolomeus secundo Quadripartiti, capitulo undecimo, verificate per venerabilem egregium virum patrum (!) Gaschowiez medicine doctorem. Totum signum Arietis facit tonitrua et lampagos — (Pisces) meridionales facientes grandinem <de natura> Saturni.'

Bibl. Markowski 1990, 182–83. On Petrus Gaszowiec, see also A. Birkenmajer, 'Les astronomes et les astrologues silésiens au Moyen Âge', in A. Birkenmajer, *Études d'histoire des sciences en Pologne*, Wrocław, 1972, 437–68: 457–59 [originally published in Polish in 1937]; A. Birkenmajer, 'Piotr Gaszowiec', in A. Birkenmajer, *Études d'histoire des sciences en Pologne*, Wrocław, 1972, 527–29 [originally published in Polish in 1949]; Markowski 1990, 161–83; R. L. Kremer, '"Abbreviating" the Alfonsine Tables in Cracow: The *Tabulae aureae* of Petrus Gaszowiec (1448)', *JHA* 38 (2007), 283–304; P. W. Knoll, *'A Pearl of Powerful Learning'. The University of Cracow in the Fifteenth Century*, Leiden-Boston, 2016, 386–87 and 572–73; Kaliszuk/Pieniądz 2019, 724–29 (no. 626).

Modern ed. ---

EDS ---

MSS Dresden, SLUB, N. 100, s. XV, f. 226v–227v
Jena, TULB, El. f. 70, s. XVI, f. 47v–48r
Munich, BSB, Clm 51, s. XV–XVI, f. 109v
Paris, BnF, lat. 7350, s. XVI, f. 263v–264v
Vatican, BAV, Pal. lat. 1439, s. XV, f. 127r–127v

C.2.8. ⟨*Commentum Cracoviense in Quadripartitum a. 1463*⟩

A commentary on *Quadripartitum* I–II in the translation of Egidius de Tebaldis (A.2.5), written in Cracow in 1463, as it appears in an excursus on the great conjunctions in II.4: 'ad annum equidem Christi 1463 currentem... anni illius ad meridianum inclite civitatis Crac<oviensis>...' (MS Memmingen, SA, 2º 2,34, f. 147ra — the date 1463 is given several times as the present year in the same chapter, f. 147ra–148rb). In II.11, the author gives the precessional increment for 1463 as 18°41′ and states that this makes a difference of two decans in longitude since Ptolemy's epoch ('Nam ad loca stellarum per Tolomeum verificata pro anno nostro 1462 completo adduntur 18 gradus 41 minuta, que faciunt fere duas facies', f. 159rb). A similar statement is found in a note which accompanies Petrus Gaszowiec's *Tabula de naturis particularibus signorum et facierum* (C.2.7) in three of its five manuscripts: 'Item, octava spera tempore Ptolomei huc usque mota est 19 gradibus et quasi per duas facies recessit octava spera a nona' (Munich, BSB, Clm 51; Paris, BnF, lat. 7350;

and Vatican, BAV, Pal. lat. 1439). Considering that the *Tabula* deals with the same ch. II.11 and was also made in Cracow in 1463, it is tempting to ascribe the present commentary to Petrus Gaszowiec.

Note The commentary closes with, or is followed by an appendix, which turns out to be a Haly Abenrudian's addition to *Quadripartitum* II.13, i.e. Hermes's *Liber de accidentibus* (see C.2.2 under Note 4).

Text '(Memmingen, SA, 2º 2,34) (125ra) **[PREFACE]** Inter utiliores vias quas in editionibus viderimus sapientum de astrorum doctrinantium influxibus (?) processus quem gloriosus astronomorum prime signifer Ptholomeus Saludranus in libro quartuo (!) partium ordinavit — et ingeniorum aviditati. (125ra–141rb) **[BOOK I]** Due sunt scientie ad pronosticationes complementum requesite secundum quod duobus modis — in aliis autem locis debiles sunt et vim non habent. (141rb–162rb) **[BOOK II]** Liber secundus de revolutionibus annorum. Capitulum primum de divisione universali huius artis. Iam sufficienter locuti sumus de universalibus principiis et regulis introductoriis huius artis in libro primo, convenit ut in isto secundo loquamus de modo applicationis predictarum regularum — ad varietatem colorum prout sepe dictum est. Et hec sunt in summa sententie domini Ptholomei de rebus et accidentibus universalibus ex secundo eius libro collecte. (162rb–163vb) **[APPENDIX]** Verum quia dominus Hali in fine capituli addit certa verba utilia domini Hermetis in libro suo de accidentibus, scripta et michi visum fuerit (?) utile eadem hic subscribere. Dixit Hermes: Ordina significatores primo etc. Primo fortiorem postmodum debiliorem — Hic enim adiunximus multa de dictis Hermetis de quibus proficies si Deus voluerit. Explicit secundus Quadripartiti Pthololomei.'

Bibl. P. Lucentini, 'Il *Liber de accidentibus* ermetico e il commento di Haly Abenrudianus al *Tetrabiblos* di Tolomeo', in *Ob rogatum meorum sociorum. Studi in memoria di Lorenzo Pozzi*, eds S. Caroti, R. Pinzani, Milano, 2000, 93–122: 94–95; G. Bezza, 'Representation of the Skies and the Astrological Chart', in *A Companion to Astrology in the Renaissance*, ed. B. Dooley, Leiden, 2014, 59–86: 84 n. 92 and 85–86.

Modern ed. None, except for the appendix, ed. Lucentini, 104–09 (see C.2.2), with the variant readings of the Florence MS (siglum *A*) in footnotes.

EDS ---

MSS Florence, BML, Ashburnham 202 (128/34), s. XV, f. 1r–67r
Innsbruck, BTLF, W. 3277, s. XV, f. 98ra–134va
Memmingen, SA, 2º 2,34, s. XV, f. 125ra–163vb

C.2.9. Lorenzo Bonincontri, *Excerpta ex Quadripartito Ptholomei*

A collection of excerpts from the *Quadripartitum*, with Haly Abenrudian's commentary, in Egidius de Tebaldis's translation (C.2.2). These excerpts were assembled by Lorenzo Bonincontri, probably when he was lecturing on astrology at the University of Florence (1475–1478). At least, the Florence MS was copied in Florence and also

includes Bonincontri's commentary on the *Centiloquium* (C.3.14), whose copy is dated 10 May 1477. The Paris MS was also copied in Florence and appears to be the personal notebook of the astronomer and astrologer Francesco Sirigatti, which includes a section dated 1492 and additions in his hand until 1506. In this manuscript, the text is attributed not to Bonincontri, but to Sirigatti himself ('Abreviatio Francisci Sirigatti super Quadripartito Ptholomei') and the two references to Bonincontri found in the title and in the explicit of Book I in the Florence MS (f. 62r and 71v) have disappeared. What is more, in the Paris MS, we find traces of erasure in these two places (f. 1r [Plate 20] and 16v), as well as in the final explicit (f. 66r). This suggests that Francesco Sirigatti attempted to appropriate the text for himself.

Text '(Florence, BML, Plut. 29.3) Exerpta per me Laurentium Bonincontrum Miniatensem ex Quadripartito Ptholomei et expositione Hali commentatoris sive Porphiri. (62r–71v) **[BOOK I]** Ex capitulo primo commenti. Scientia stellarum est ars a principiis certis aliarum scientiarum proveniens, quibus ea que accidunt possunt sciri cuius principia in phisicis... Ex textu et commento de pronosticandi scientia. Duas esse res quibus pronosticandi scientia perficitur et has maiores aliis quia de omnibus rebus potest cognoscere astrologus — in ceteris vero domibus male. Finiuntur extracta per me Laurentium Bonincontrum Miniatensem ex primo libro Quadripartiti Ptholomei. (71v–79r) **[BOOK II]** Excerta ex secundo libro Quadripartiti Ptholomei et ex commento. Rationabiliter dicit Aly ut convertere (?) in hac arte confidat — cum significatoribus luminarium. Finis primi libri et secundi. (79r–94v) **[BOOK III]** Incipit tertius liber Quadripartiti Ptholomei. Capitulum primum prohemiale et que ex his excerpsimus. Si res generales eclipsium et fortium coniunctionum planetarum — quam habet cum bonis vel malis. (94v–105r) **[BOOK IV]** Excerta ex libro quarto Quadripartiti Ptholomei. Ex capitulo primo de fortuna et prosperitate nati cum divitiis. Fortunam et prosperitatem nati in divitiis — et extrahemus a locis mensium et dabimus cuilibet signo duos dies et tertium. Finis. Deo gratias.'

Bibl. B. Soldati, *La poesia astrologica nel Quattrocento*, Firenze, 1906, 135–36; Thorndike 1923–1958, IV, 409 n. 1; A. Field, 'Lorenzo Buonincontri and the First Public Lectures on Manilius (Florence, *ca.* 1475–78)', *Rinascimento* 36 (1996), 207–25: 211 n. 17; L. Giorgetti, 'Da Giorgio Trapezunzio a Luca Gaurico intorno a Tolomeo', *Roma nel Rinascimento* (2002), 201–12: 206.

Modern ed. ---

EDS ---

MSS Florence, BML, Plut. 29.3, s. XV, f. 62r–105r
Paris, BnF, lat. 7433, s. XV, f. 1r–66r

C.2.10. Conrad Heingarter, *Commentum Quadripartiti Ptholomei*

This is essentialy a new edition of the *Quadripartitum* with Haly Abenrudian's commentary in Egidius de Tebaldis's translation (C.2.2), prepared by Conrad Heingarter for the duke of Bourbon Jean II at the Belleperche Castle (Bagneux)

in or shortly before 1477. The exact nature of Conrad's contribution remains to be investigated but, at the very least, he composed a preface to Jean II, rewrote Haly's commentary to some extent and added notes of his own, as well as a short conclusion at the end of Book IV. Conrad says that he improved the text and verified the position of the fixed stars for the meridian of Belleperche at Jean II's time. The two Paris MSS have basically the same text, including the same incipit and explicit for each book, but they nevertheless differ from one another. Two notable differences are that in Paris, BnF, lat. 7305, the preface is more elaborate and much longer, and each lemma of Ptolemy's text is given in both Plato of Tivoli's (A.2.1) and Egidius de Tebaldis's translations, the latter being called 'alia translatio'. Paris, BnF, lat. 7432 was copied under Conrad's supervision and contains, among others, three Ptolemaic works together with Conrad's commentary (*Quadripartitum*, *Centiloquium* and *De cometis*), which, according to the colophon f. 148v, were completed on 3 January 1477. This magnificent manuscript was evidently meant to be the presentation copy, but it was apparently still unfinished when Jean II died on 1 April 1488. This manuscript is unlikely to have been the model, even indirectly, of Paris, BnF, lat. 7305, which was copied in 1493, and the relationship between these two manuscripts is unclear. The fragment contained in the third manuscript, Zurich, ZB, B 244, reflects yet a third version of the text, a revision written in or after 1489, that is after the duke's death.

Text '(Paris, BnF, lat. 7432) (3v–4r) **[CONRAD HEINGARTER'S PREFACE]** Deus illum vere diligit in quo posuit superioris scientie intellectum, que procul dubio est scientia astrorum... Ego autem, Conradus Heingarter, verus amator scientie inspiciens librum quatuor partium... ex glosis sapientissimi Haly Alben Rudiani phisici (qui sua consideratione mirabili sententias occultas in eo contentas apperuit) declarare breviori sermone quo potero et solummodo pro intelligendo dictum librum ea que maxime necessaria sunt, ponam et stellas celi ad nostrum clyma sextum ad orizontem arcis Bellepartice, cuius longitudo est 23 gradu cum 15 minutis, latitudo vero 46 et semis et ad eram Iohannis Borbonii atque Alvernie ducis illustrissimi verificare dignum putavi — tua fama cunctis temporibus immortalis vigebit. (3v–33r) **[BOOK I]** [COMM.] (4r) Dicimus quo iudicium stellarum est scientia a principiis certis proveniens... (5r) [TEXT] Ptholomei scientie astrorum peritissimi Quadripartitum feliciter incipit, cuius quidem prima pars in XXIIII distinguitur capitula, quorum primum ostendit quod scientia iudiciorum astrorum non adeo est demonstrativa ut scientia motuum, que pure mathematicalis est. Sunt autem huius primi capituli aphorismorum. Aphorismus I. Res, o Mizori, quibus pronosticationes accepte de astronomia maiores et nobiliores due sunt — (32v) [TEXT] ... sunt debiles et virtutem non habent. Finit pars prima. [COMM.] ... sibi dabis tot unicuique gradui distribues. (33v–65r) **[BOOK II]** [COMM.] Incipit commentum libri secundi. Ex dictis Ptholomei et Haly Albenrudiani in glosis primi libri monstramus quod... (34r) [TEXT] Ptholomei scientie astrorum doctissimi Quadripartiti secunda pars (cuius sunt capitula XIII) iocundissime incipit. Capitulum primum (cuius sunt VII amphorismi) de divisione huius artis. Amphorismus primus. Bene sufficit nobis id quod universaliter sumus locuti — (64v)

[TEXT] ... in nativitatibus hominum secundum quod huic ordinationi convenit.Finit pars secunda. [COMM.] ... tua cunctis temporibus immortalis erit, vigebit atque florebit. (65r–103r) **[BOOK III]** [COMM.] Monstrabimus in hoc tertio et quarto volumine regulas quibus... (66r) [TEXT] Ptholomei astrorum scientie inter omnes doctissimi Quadripartiti tertia pars, cuius XV sunt capitula, incipit feliciter. Capitulum primum qualiter sciri possunt ea que accidunt homini cuilibet in natura propria, cuius sunt aphorismi IIII. Aphorismus primus. Postquam narravimus ante et incepimus in accidentibus generalibus — (102v) [COMM.] ... ex regulis sapientisimi Haly Albenrudiani glosavimus tibi ad laudem et ad utilitatem studentium. (103r) [TEXT] ... ad magnum usum et ad magnum augmentum de illis. Finis tercius. (103v–126r) **[BOOK IV]** [TEXT] Ptholomei astrorum scientie predicissimi (?) Quadripartiti pars quarta incipit, et sunt huius quarte partis capitula decem. Capitulum primum de fortuna nati, cuius sunt aphorismi duo. Aphorismus primus. In rebus hominis potest iudicari... (104r) [COMM.] Monstramus et declaravimus quam brevius potuimus tria volumina huius libri et adhuc te favente serenissime princeps — (125v) [TEXT] ... finem in hoc loco huic libro conveniens existimamus. Ptholomei viri illustrissimi qui pectore suo totum pene celum clausit Quadripartitum finit foeliciter. [COMM.] ... sunt regule et radices quibus ars ista componitur. Laus Deo glorioso et sublimi. (125v–126r) **[CONRAD HEINGARTER'S CONCLUSION]** Hec sunt commentaria, excellentissime princeps, tuus ego Conradus Heingarter ad tui nominis laudem atque tue artis Bellepartice famam et pro communi studentium in hac arte utilitatem, ex sapientibus fontibus (et precipue Haly Albenrudiani viri pre ceteris clarissimi) hansi, castiganda (propter vicia scriptorium) castigavi et stellas atque signa celi ad tuam eram, illustrissime princeps, verificavi, quia tu solus nostro tempore viros doctos amas, colis atque honoras, per quos quando aliorum regum et principum fama liquescet, tua cunctis temporibus florescet. Finit commentum Quadripartiti Ptholomei principis astrologorum doctissimi. (125v–134r) **[HALY'S APPENDIX]** Incipiunt exempla trium nativitatum Haly, et primo nativitas sua. Volo in hoc loco dare exempla trium nativitatum — et Deus te dirigat in viam rectam. (134r) **[ADDITIONAL NOTE]** Volui autem probare utrum ille auctor secundum 9 speram vel secundum octavam et inveni per loca planetarum que ponit in figura sue nativitatis quod ipsa fuit annis Christi perfectis 986, 10 mensibus, 15 die Ianuarii, qua die equavi planetas secundum tabulas Machabeorum (!), inveni sic.'

Bibl. Thorndike 1923–1958, IV, 362–65; Préaud 1969, XIII-XIV; M. Préaud, 'Les méthodes de travail d'un astrologue du XV^e^ siècle, Conrad Heingarter', *Position des Thèses de l'École des Chartes* (1969), 143–49: 144.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7305, s. XV, f. 4r–353r
Paris, BnF, lat. 7432, s. XV, f. 3v–134r
Zurich, ZB, B 244, s. XV, f. 11r–19v (fragment II.4–13)

C.2.11. Michael Ruszoczky (?), ⟨*Commentum in Quadripartitum*⟩

A commentary on *Quadripartitum* II.5–8 inserted into Michael Ruszoczky's (?) *Commentum in Centiloquium*. See C.3.18.

C.2.12. *Anonymous Commentary on the Tetrabiblos* [Greek]

Εἰς τὰ Πτολεμαίου ἀποτελέσματα ('<Commentary> on Ptolemy's *Apotelesmata*', title given in the earliest manuscript, from the eleventh century) is a commentary on the complete text of the *Tetrabiblos*, written sometime between *c.* 467 and *c.* 575 in Alexandria by an anonymous scholar, possibly Heliodorus of Alexandria. Besides the two translations by Giorgio Valla (C.2.12.1) and Hieronymus Wolf (C.2.12.2), this text also made its way in Latin through Isaac Argyros's *Paraphrasis in Anonymum commentum in Quadripartitum* (C.2.16).

Bibl. C.-E. Ruelle, 'Deux identifications. L'exégèse dite anonyme de la Tétrabible de Claude Ptolémée et le traité dit d'Hermès le Philosophe 'De revolutionibus nativitatum' attribués à l'astrologue arabe Abou-Mashar. Découverte du texte grec du second traité', *Comptes Rendus des Séances de l'Académie des Inscriptions et Belles-Lettres* 54 (1910), 32–39: 32–34; Gundel/Gundel 1966, 215; S. Heilen, 'Ptolemy's Doctrine of the Terms and Its Reception', in Jones 2010, 45–93: 65–66; Caballero-Sánchez 2013; R. Caballero-Sánchez, 'El *Comentario anónimo al Tetrabiblos de Tolomeo.* Edición crítica y traducción castellana de los escolios metodológicos del libro I (in Ptol. *Tetr.*, 1.1.1–1.3.1)', *MHNH* 13 (2013), 221–57; A. C. Domínguez Alonso, 'La influencia astrológica sobre la pasión amorosa en el *Comentario Anónimo al Tetrabiblos de Tolomeo*: Edición crítica, traducción y comentario', *MHNH* 15 (2015), 253–70; R. Caballero-Sánchez, 'En busca del autor perdido. Algunas reflexiones sobre el contexto histórico-filosófico del comentario anónimo al *Tetrabiblos* de Tolomeo', in *De ayer y hoy. Contribuciones multidisciplinares sobre pseudoepígrafos literarios y documentales*, ed. M. Labiano, Madrid, 2019, 130–47; R. Caballero-Sánchez, '¿Por qué llama el comentarista anónimo ὁ παλαιός a Tolomeo?', in *Plutarco, entre dioses y astros. Homenaje al profesor Aurelio Pérez Jiménez de sus discipulos, colegas y amigos*, eds J. F. Martos Montiel, C. Marcías Villalobos, R. Caballero-Sánchez, Zaragoza, 2019, II, 981–93; A. C. Domínguez Alonso, *La parafrasi bizantina di Isaac Argiro del Commento Anonimo al Tetrabiblos di Tolomeo. Edizione critica bilingue*, PhD dissertation, Università di Salerno, 2019, CXXV–CXXVII; R. Caballero-Sánchez, 'Heliodoro de Alejandría y el *Comentario Anónimo al Tetrabiblos de Tolomeo*', *Humanitas* 76 (2020), 33–56; R. Caballero-Sánchez, '¿Cuál es el final del *Comentario Anónimo al Tetrabiblos de Tolomeo*?', *Aevum* 95 (2021), 301–26; R. Caballero-Sánchez, 'On the Chronology of the Anonymous Commentary to Ptolemy's *Tetrabiblos*: Analysis of the Astronomical Evidence', *JHA* 52 (2021), 442–61; R. Caballero-Sánchez, 'The Horoscopes of the *Anonymous Commentary on Ptolemy's Tetrabiblos*', *Journal of the Warburg and Courtauld Institutes* 85 (2022), 1–23; A. Pérez-Jiménez, 'Edad real y nominal en los incestos del *Tetrabiblos* de Tolomeo (*Comentario Anónimo* pp. 256–257 Wolff)', in *Studi sull'arte dei decreti delle stelle in memoria di Guiseppe Bezza*, ed. F. Martorello, Sarzana-Lugano, 2022, 39–57.

Modern ed. The Greek text was first published in Basel in 1559 (from MS Munich, BSB, Cod. Graec. 59, s. XVI, f. 210r–312v, see Caballero-Sánchez 2013, 86 and 173) by Hieronymus Wolf, together with his own Latin translation (C.2.12.2). A critical edition is in preparation by Raúl Caballero-Sánchez.

EDS ---

MSS ---

C.2.12.1. *In Ptolemaei ad Syrum Apotelesmata commentarium*, tr. Giorgio Valla

A translation of the *Anonymous Commentary on the Tetrabiblos* (C.2.12) by Giorgio Valla (1447–1500), professor of Greek and Latin in Pavia (1466–1485) and Venice (1485–1500). In the unique extant witness, published in Venice in 1502, the text is presented as Valla's own commentary, something which irritated Girolamo Cardano who knew the Greek original text and accused Valla of appropriating the commentary for himself ('Mirum est autem quod a tam paucis tam celebris utilisque liber [i.e., the *Tetrabiblos*] sit expositus, ut vix praeter authorem ignotum qui Graece scripsit, quenque Georgius Valla vertit impudenter illius commentaria sane satis frigida sibi ascribens, quae Emarus Ranconetus nobis largitus est, apud quem etiam Graecus codex, ut vidi, extabat, et Haly Heben Rodoan Arabem alium sciam qui prodierit in lucem tanto authore dignus', *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24), *Prooemium expositoris*, ed. Basel 1554, sig. 2). The same accusation was repeated by the publisher of the *editio princeps* of the Greek text ('Nuper etiam cum in commentationes in Cl<audii> Ptolemaei Quadripartitum Venetiis anno 1502 editas et Georgio Vallae inscriptas incidissem, vehementer fui exhilarates. Nam a tanto viro nihil non eximium expectabam. Sed cum paulum progressus fuissem legendo, facile deprehendi id opus et Vallae falso esse inscriptum et ab ipso haudquaquam emendatum, sed e Graeco transcriptum duntaxat esse', ed. Basel 1559, sig. a_2r). It should be noted, however, that the text was published posthumously by Valla's son, Giampietro Valla, who may as well be responsible for the attribution of the commentary to his father. The Greek manuscript used by Valla has been identified as Modena, BEU, gr. 40 (Alfa T.9.6) (Caballero-Sánchez). My thanks to Craig Martin for drawing my attention to Cardano's passage.

Text '(ed. Venice 1502) Georgii Vallae Placentini In Ptolemaei ad Syrum Apotelesmata commentarium. (A_{ii}r) **[PREFACE]** Ptolemaeus mathematicorum omnium facile princeps ut quidam scripsere Adriani vixit temporibus ad Antoniumque — historicusque non invenustus. (A_{ii}r–C_{ii}v) **[BOOK I]** Exordium igitur in hoc opere sibi assumit Ptolemaeus in illos qui astronomiam artem — significat refrigerationem impedimentumque coitus. (C_{ii}v–D_{iii}r) **[BOOK II]** Georgii Vallae Placentini Enarratio in Ptolemaei Apotelesmatum volumen secundum distributiones universalis considerationis. Maxime praecipua cunctorum in tabulis expositorum cuncta introductoria praecepta — dicere ad illaque te remittendo concludit orationem. (D_{iii}r–F_{iii}v) **[BOOK III]** Georgii Vallae Placentini Commentatio in tertium Ptolemaei Apotelesmaton librum delectu eorum quae praecessere universalia. Componit sese in tertii libri exordio ad demonstrandum ordinem et iteratam commemorationem ex divisione dictorum — et si prius dictum ob celerem mobilitatem omnium quae diximus causa efficitur. (F_{iii}v–[G_{iv}]r) **[BOOK IV]** Georgii Vallae Placentini in quartum volumen Ptolemaei Apotelesmaton commentarium. Cum ea quae genesim praecedunt absolverit tertiumque volumen non simpliciter neque ut casus tulit imposuit finem — ex eo quod infertur ex ablatione ascensionum rectae sphaerae capitulo 16 omnium centrorum habebimus primordia.'

Bibl. J. L. Heiberg, *Beiträge zur Geschichte Georg Valla's und seiner Bibliothek*, Leipzig, 1896, 38–39; Caballero-Sánchez 2013, 83–84 and 134–35.

Modern ed. ---

EDS Venice, Simon Bivilaqua, 1502, sig. A_{ii}r–[G_{iv}]r

MSS ---

C.2.12.2. *Ennaratio in Claudii Ptolemaei quatuor libros De iudiciis*, tr. Hieronymus Wolf

A translation of the *Anonymous Commentary on the Tetrabiblos* (C.2.12) by Hieronymus Wolf (1516–1580), who published it in Basel in 1559, together with the Greek original text, in two columns.

Text '(ed. Basel 1559) (1–52) **[BOOK I]** Enarrator ignoti nominis in Claudii Ptolemaei quatuor libros De iudiciis, anonymo interprete. In exordio Ptolemaeus contra eos disputat, qui astrologiam artem esse negant, eamque demonstrare volunt — Si Saturno significat frigus et impedimentum coitus. Finis enarrationis primi libri. (53–85) **[BOOK II]** Enarratio secundi libri. Divisio considerationis universalis. Eorum praecipua quae nunc tanquam in tabella exposuimus. Omnibus praeceptis institutionum quae quod quasi in tabella spectanda — te remittit atque ita liber finit. Commentariorum in secundum Quadripartiti finis. (86–145) **[BOOK III]** Enarratio tertii libri. Tractata superius a nobis. Autori propositum est in exordio tertii libri — eorum quae dicta sunt omnium fit autor. Finis enarrationis tertii libri. (146–80) **[BOOK IV]** Enarratio quartii libri. Ea quae genituram antecedunt. Absolvit etiam tertium librum fastigio — etiam angulis e substractione ascensionum regulae rectae sphaerae, initia omnum angulorum sumus habituri. Finis enarrationis Quadripartiti mathematici Ptolemaei Claudii.'

Bibl. C.-E. Ruelle, 'Deux identifications. L'exégèse dite anonyme de la Tétrabible de Claude Ptolémée et le traité dit d'Hermès le Philosophe 'De revolutionibus nativitatum' attribués à l'astrologue arabe Abou-Mashar. Découverte du texte grec du second traité', *Comptes Rendus des Séances de l'Académie des Inscriptions et Belles-Lettres* 54 (1910), 32–39: 32–34; S. Heilen, 'Ptolemy's Doctrine of the Terms and Its Reception', in Jones 2010, 45–93: 65–66; Caballero-Sánchez 2013, 83–85; S. Heilen, H. Zäh, 'Who Edited and Who Translated the Anonymous Commentary to Ptolemy's *Tetrabiblos* and (Ps.-)Porphyry's *Isagoge* (Basel 1559)?', *MHNH* 20 (2020), 93–128.

Modern ed. ---

EDS Basel, Henricus Petri, 1559, sig. 1–180

MSS ---

C.2.13. ⟨*Commentum Cracoviense in Quadripartitum a. 1505–1507*⟩

A marginal commentary on the *Quadripartitum* in Egidius de Tebaldis's translation (A.2.5). Ptolemy's text is given in full, but without Haly Abenrudian's commentary.

The three extant manuscripts exhibit the same organisation and layout, and all three open with the same introduction summarising the contents of the four books of the *Quadripartitum* (inc. 'Iste totalis liber Ptolomei Pheludiani dividitur in quatuor partes...'), but the commentary itself appears to differ considerably, if not entirely. According to MS Cracow, BJ, 1963, Book I was completed in 1505, Book IV in 1506 and Book II in 1507 (no date is given for Book III). The three manuscripts were copied at the University of Cracow and two of them (the two Cracow MSS) are notebooks of students, which also include Matthias de Krajna's lectures on the *Centiloquium* given in 1505–1506 (C.3.20). This makes it likely that the present commentary derives from, or is somehow related to, university lectures. If this is the case, a good candidate lecturer would be Jacobus de Ilza, who was the main professor of astrology at Cracow from 1506 to 1515 and who is recorded to have lectured 'in astrologia' in the years 1505–1507 (cf. Wisłocki 1886, 69, 71, 73 and 78). Matthias de Krajna, on the other hand, can be ruled out for he left Cracow to study medicine in Italy in 1506.

Text '(Cracow, BJ, 1963) **[TEXT]** Ptolomeus. Res, o Missori, quibus perficiuntur prenosticationes accepte de astronomia aures et nobiliores... **[COMM.]** Iste totalis liber Ptolomei Pheludiani dividitur in quatuor partes principales. In prima posuit regulas introductorias — finem in hoc loco huic libro imponere conveniens extimamus. Finis anno 1506 ipso die sancti Nicolai.'

Bibl. Rosińska 1984, nos 829, 1029 and 1854; Markowski 1990, 32. On Jacobus de Ilza (Jakub z Iłży), see Markowski 1990, 40–43; M. Markowski, 'Repertorium bio-bibliographicum astronomorum Cracoviensium medii aevi: Georgius Kotermak de Drohobycz — Iosephus Struthius (Struś') de Posnania', *Studia Mediewistyczne* 29 (1992), 91–155: 98–103; Kaliszuk/Pieniądz 2019, 220–23 (no. 257).

Modern ed. ---

EDS ---

MSS Cracow, BJ, 1839, s. XVI, f. 1v–52v (Books I and III, breaks off in III.11)
Cracow, BJ, 1963, s. XVI, f. 10r–109v
New York, CU–RBML, Plimpton 202, s. XVI, f. 2r–48v (breaks off in IV.9)

C.2.14. *Compilatio libri iudicialis Ptholomei in nativitatibus secundum ordinem domorum*

A recasting of Ptolemy's doctrines on nativities (*Quadripartitum* III–IV) following the order of the twelve houses, with a final section on the revolutions of nativities. This *Compilatio* was put together by a scholar who likewise summarised, paraphrased and excerpted a large number of astrological texts in what appears to be an autograph manuscript, one section of which is dated 1507. This scholar is perhaps the 'Petrus de Rielat[9]' (?), whose name appears in the colophon of one of these texts (see MS entry).

The starting point and the main source of the *Compilatio* is the *Quadripartitum* (in Plato of Tivoli's translation, A.2.1), but the author also refers to the *Centiloquium* and to other authors, especially Leopold of Austria and Guido Bonatti.

Text '(Gloucester, CL, 15) Compilatio libri iudicialis Ptholomei in nativitatibus secundum ordinem domorum procedens... Expedita autem theorica nativitatum secundum canones Alchabitii vel alterius introductoris... Ait itaque Ptholomeus tractato (!) tertio, capitulo nono: Quando aliquod luminarium fuerit in aliquo angulorum figure precise... In prima domo in forma, figura et complexione nati. Forma, figura et complexio nati secundum Ptholomeum (12va), tractatu tertio, capitulo 11, ex quatuor demonstrantur — similiter si dominus prime domus radicis nativitatis fuerit in decima revolutionis, idem iudicabis ...us (?) vide in parte et capitulo eiusdem ... (?).'

Bibl. ---

Modern ed. ---

EDS ---

MSS Gloucester, CL, 15, s. XVI, f. 12rb–25va

C.2.15. Agostino Nifo, *Ad Apostelesmata Ptolemaei eruditione*s

An extensive lemmatic commentary on Book I of the *Quadripartitum* published by Agostino Nifo (1469/70–1538) in Naples in 1513 with dedication to the bishop of Bojano Sylvius Pandonus. Ptolemy's lemmas are given in a new translation from the Greek prepared by Nifo himself (A.2.7). The work is organised in three books, covering chapters I.4–17, 18–22 and 23–24 respectively (chapters 1–3 are omitted). As shown by Vuillemin-Diem/Steel, Nifo knew and used William of Moerbeke's translation of the *Quadripartitum* (A.2.6).

Text '(ed. Naples 1513) (Iv) **[PREFACE]** Praefatio. Consideranti mihi praesul dignissime ac Pandonii generis unicum decus quonammodo auditoribus meis bonarum atrium ac medicinae studiosis prodesse possim — quae amplissime sunt deditissimum. Vale. (IIr–XXXIr) **[BOOK I]** [TEXT] Ad Sylvium Pandonum Boviani episcopum Augustini Niphi Suessani eruditionum ad Apotelesmata liber primus. De potestate planetarum. Sol suapte natura calefaciendi atque aliqua ex parte exiccandi efficaciam habet, fiunt vero haec prae aliis nobis perspicua... [COMM.] Duo sunt coeli sive luminaria sive lumina quae graece phosphora sive phota dicuntur, alterum quidem quod graece Helios, latine Sol — nos novas mutationes, ut Aristoteles in libro de generatione tradit. Et de primo eruditionum libro haec sufficiant. (XXXIr–XXXXr) **[BOOK II]** Eiusdem Augustini Niphi secundus eruditionum liber qui est de iuris dictionibus stellarum. [TEXT] Conveniunt autem et ipsi planetae partibus signiferi et secundum domicilii rationem... (XXXIv) [COMM.] Naturales similitudines quas stellae quinque cum signis et signorum partibus habent sunt quatuor: domicilium, triangularitas quam triplicitatem vocant, altitudo quam exaltationem dicunt, atque fines quos terminos appellant — cum ipse capiat demonstrative dictam sortem. Haec de locis et partibus et consequenter de secundo libro. (XXXXr–XXXXIIIv) **[BOOK III]** Eiusdem Augustini Niphi eruditionum liber tertius qui est

de opulentiis stellarum. [TEXT] Convenientiae quidem igitur stellarum et dodecatemoriorum fere utique tot sunt... [COMM.] Stellae cum signis habent naturales quattuor convenientias sive similitudines, quae graece dicunctur (!) synoiceioseis, ut domum, triangulum, exaltationem et fines — tamen usus meus est cum Graeco sine nomine, nam ipse fideliter Ptolomaei verba exposuit brevibus satis. Finis.'

Bibl. Thorndike 1923–1958, V, 183; M. Rinaldi, 'Due capitoli sulla fortuna delle *Commentationes in Ptolemaeum* di G. Pontano. Le *Eruditiones ad Apostelemata Ptolemaei* di Agostino Nifo e il *Libellus de difficitionibus et terminis astrologiae* di O. Brunfels', *MHNH* 10 (2010), 201–16: 208–13; Vuillemin-Diem/Steel 2015, 45–48.

Modern ed. ---

EDS Naples, Petrus Maria de Richis, 1513, sig. Iv–XXXXIIIv

MSS ---

C.2.16. Isaac Argyros, ⟨*Paraphrasis in Anonymum commentum in Quadripartitum*⟩

A paraphrase of the *Anonymous Commentary on the Tetrabiblos* (C.2.12) written around 1370 by the Byzantine mathematician and astronomer Isaac Argyros and translated from the Greek in the first half of the sixteenth century. The translator translated not only Argyros's paraphrase but also Ptolemy's *Tetrabiblos* (A.2.8) and arranged both texts in alternating sequences by lemmas, with Argyros's paraphrase copied in smaller script. The only extant manuscript (Madrid, UC-BH, cod. 122) is the original copy, as evidenced by the numerous corrections throughout, which can only have been made by the translator. The Greek exemplars have been identified with MSS Madrid, UC-BH, cod. 27 (for Argyros's paraphrase) and cod. 29 (for Ptolemy's text). These three manuscripts belonged to the University of Alcalá by 1565 and the translation has been generally attributed to Hernán Núñez de Guzmán (Nonius Pincianus or El Pinciano, *c.* 1478–1553) or to someone of his circle at Alcalá (Signes Codoñer et al., Domingo Malvadi, Domínguez Alonso). Recently, however, Martínez Manzano argued against Núñez's authorship, relocated the manuscripts in Rome, dated the translation to *c.* 1530 and suggested that the three manuscripts may have been brought to Alcalá by the astrologer Pedro Sánchez Ciruelo (1470–1548). A full paleographical and codicological study would be needed to sort out the authorship, date and place of the translation.

Text '(Madrid, UC-BH, cod. 122) (1r–43v) **[BOOK I]** [CHAPTER INDEX] Hec insunt in primo libro Quadripartiti Ptolemaei. 1. Quod praenotio (*corr. ex* precognitio) que per astronomiam fit comprehendi possit et quatenus... [PTOLEMY'S TEXT] Claudii Ptolemei conclusivi Quadripartiti ad Syrum liber primus. Proemium. Cum duo maxima sint eademque precipua, Syre, que prognosticationem quae per astronomiam fit, constituunt,

alterum quidem, quod ordine ac potestate primum censetur, quo videlicet configurationes motuum Solis et Lunae ac stellarum... (1v) [ARGYROS'S PARAPHRASE] Cum duo maxima sint: Conclusivi Quadripartiti proemium Ptolemeus adversus eos facit qui astrologiam non esse scientiam existimabant — [TEXT] (42v) ... imbecilles penitus redduntur. (43v) [PARAPHRASE] ... septimum per hec aut nonum locum significavit. (44r–81r) **[BOOK II]** [CHAPTER INDEX] Hec insunt in secundo libro Quadripartiti Ptolemei. 1. Universalis considerationis divisio... [TEXT] Claudii Ptolemei conclusivi Quadripartiti ad Syrum liber secundus. Cap. 1: Universalis considerationis divisio. Ea quidem que tabulari modo a nobis superius exposita ad particularem... [PARAPHRASE] Ea quidem que tabulari modo: Cum omnia introductoria theoremata dixerit — [TEXT] ... secundum congruentem consequentiam pertractabimus. [PARAPHRASE] ... comete enim siccitates significant, traiectiones autem ventos. (81v–133r) **[BOOK III]** [CHAPTER INDEX] Hec insunt in tertio libro Quadripartiti Ptolemei. Proemium. 1. De conceptione et partu... (82r) [TEXT] Claudii Ptolemei conclusivi Quadripartiti ad Syrum liber tertius. Proemium. Cum in superioribus de universalium accidentium speculatione... [PARAPHRASE] Propositum est Ptolemei in huius libri tertii proemio dicendorum ordinem — (132v) [TEXT] ... et affectionum ipsarum concitativum ac multimodum. [PARAPHRASE] ... que predicta sunt causa efficitur. Explicit liber tertius. (133r–159r) **[BOOK IV]** [CHAPTER INDEX] Haec insunt in quarto libro Quadripartiti Ptolemaei. 1. De fortuna acquisitiva... (133v) [TEXT] Claudii Ptolemei conclusivi Quadripartiti ad Syrum liber quartus. Proemium. Quae igitur ante genituram et in ipsa genitura perspici possunt... [PARAPHRASE] Que igitur: Quecunque ante genituram opus erat considerare — [TEXT] ... cum ea causa que ex commixtione redundat pariter coniunctae. [PARAPHRASE] ... sed ob rei necessitatem magis particularia capitula conticuerit. Τέλος.'

Bibl. Kristeller 1963–1992, IV, 587; J. Signes Codoñer, C. Codoñer Merino, A. Domingo Malvadi, *Biblioteca y epistolario de Hernán Núñez de Guzmán (El Pinciano). Una aproximación al humanismo español del signo XVI*, Madrid, 2001, 61–63; Caballero-Sánchez 2013, 83 and 101–02; A. Domingo Malvadi, 'La enseñanza del griego en Alcalá de Henares. The Teaching of Greek in Alcalá de Henares', in *V Centenario de la Biblia Políglota Complutense. La Universidad del Renacimiento. El Renacimiento de la Universidad*, ed. J. L. G. Sánchez-Molero, Madrid, 2015, 395–415: 400; A. C. Domínguez Alonso, 'La influencia astrológica sobre la pasión amorosa en el *Comentario Anónimo al Tetrabiblos de Tolomeo*: Edición crítica, traducción y comentario', *MHNH* 15 (2015), 253–70: 259–64; A. C. Domínguez Alonso, 'La paráfrasis de Isaac Argiro al *Comentario Anónimo al Tetrabiblos de Tolomeo*: Algunas aportaciones originales al Libro I', *MHNH* 16 (2016), 233–50: 235; A. C. Domínguez Alonso, 'La paráfrasis autógrafa de Isaac Argiro al *Comentario anónimo* al *Tetrabiblos* de Tolomeo. Algunas cuestiones sobre su autoría', in *Plutarco, entre dioses y astros. Homenaje al profesor Aurelio Pérez Jiménez de sus discípulos, colegas y amigos*, eds J. F. Martos Montiel, C. Macías Villalobos, R. Caballero-Sánchez, Zaragoza, 2019, II, 1049–1060: 1052; A. C. Domínguez Alonso, *La parafrasi bizantina di Isaac Argiro del Commento Anonimo al Tetrabiblos di Tolomeo. Edizione critica bilingue*, PhD dissertation, Università di Salerno, 2019, CLIV–CLVII and CLXI–CLXII; T. Martínez Manzano, 'Ptolomeo en la Alcalá renacentista', in *Curiositas nihil recusat. Studia Isabel Moreno Ferrero dicata. Estudios dedicados a Isabel Moreno Ferrero*, eds J. A. González Iglesias, J. Méndez Dosuna, B. M. Prósper, Salamanca, 2021, 305–25.

Modern ed. Argyros's paraphrase, both the Greek original and the Latin translation, has been edited in two columns by Domínguez Alonso, *La parafrasi bizantina* (this edition does not include Ptolemy's text). Selected passages (Greek and Latin) had already been edited by Domínguez Alonso, 'La paráfrasis de Isaac Argiro', 240–53.

EDS ---

MSS Madrid, UC-BH, cod. 122, s. XVI, f. 1r–159r

C.2.17. ⟨*Epitome in Quadripartitum* (II)⟩

An epitome of the *Quadripartitum* focusing individual astrology more than on mundane astrology. The text ends abruptly in III.10 in the only known manuscript, which was copied in Germany in the first half of the sixteenth century.

Text '(Vatican, BAV, Pal. lat. 1366) (1r) **[INTRODUCTION]** Inquit Ptholomeus Phelusiensis primo Quadripartiti: Astronomia est scientia qua duorum luminarium et quinque planetarum figure sciuntur secundum motum suum in comparatione unius ad alterum — non scitur nisi per suam causam. (1v–23v) **[BOOK I]** Primus Quadripartiti liber. Quare astrologia presupponit astronomiam, que est completa, firma et stabilis — lege Ptholomeum folio 28 et secundus primi tractatus. (24r–29r) **[BOOK II]** Tractatus secundus incipit et tractat de universalibus. Inquit quod duo sunt in quibus hoc totum scire possumus — ut postea patebit in sequentibus. (30r–79r) **[BOOK III]** Liber tertius Quadripartiti de nativitatibus. Notandum pro regula universali quod conceptio et partus sibi correspondent — stelle possunt removere (?) mortem.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Vatican, BAV, Pal. lat. 1366, s. XVI, f. 1r–79r

C.2.18. Adam Tussinus de Tarnovia (?), ⟨*Commentata epitome in Quadripartitum*⟩

A commented summary of *Quadripartitum* II–IV found in the personal notebook of Adam Tussinus de Tarnovia, who lectured on astronomy and astrology at the University of Cracow between 1528 and 1545 and who is known in particular for his astrological almanacs and annual prognostications produced between 1532 and 1537. The source text is Plato of Tivoli's translation (A.2.1), as shown by the explicit, but the author appears to have also used Egidius de Tebaldis's translation (A.2.5), for he often refers to 'Hali', i.e. Haly Abenrudian, and he also copied a section of Haly's commentary elsewhere in his notebook (pp. 239–266). The author also refers to other authorities, including Albumasar ('Albumasar in Libro magnarum coniunctionum', p. 31) and Agostino Nifo ('Augustinus Niphus id ita exponit', p. 36).

Text '(Cracow, BJ, 3224) (19–76) **[BOOK II]** Liber secundus Quadrupartiti XIII c<apitula> continentes. Capitulum primum. De generali divisione scientie huius. Post dicta generalia in scientia astrorum omnibus partibus huius artis convenientia — accidentibus predictis coloribus significatis indicabunt. (83–145) **[BOOK III]** Pro habenda declaratione nativitatum regulas has ex tertio Quadripartiti Ptholomei breviter recollectas in mente habeas et habebis vera prognostica earum. In parte prohemiali Ptholomeus docet quod in principio sui Quadripartiti libri vult ponere regulas universales... (84) In casu spermatis et exitu hominis capitulum primum. Principium cuiuslibet hominis est — ad iudicia futurorum predicenda. (146–223) **[BOOK IV]** Quartus liber ... (?) Ptholomei et regule generales ex eo recollecte ... (?). Dividitur in prohemium et — finem libro imponere non incongruum existimamus.'

Bibl. Rosińska 1984, nos 890 and 1590; Markowski 1990, 230. On Adam Tussinus de Tarnovia, see Markowski 1990, 3–6; M. Markowski, 'Repertorium bio-bibliographicum astronomorum Cracoviensium medii aevi: Adam Tussinus de Tarnovia — Andreas Grzymała de Posnania', *Studia Mediewistyczne* 27.1 (1990), 111–63: 111–16.

Modern ed. ---

EDS ---

MSS Cracow, BJ, 3224, s. XVI, pp. 19–76 and 83–223

C.2.19. John Robyns, *Epitome in Apotelesmata Ptolomaei*

An epitome of the *Quadripartitum* I.1–3 accompanied by a very detailed commentary by John Robyns or Robins (d. 1558), fellow of All Souls College (Oxford) since 1520 and chaplain to Henry VIII (d. 1547), to whom he addressed at least two astrological works, a *De cometis commentaria* (MS London, BL, Royal 12.B.XV, s. XVI, f. 1r–52v) and a *Libellus de accidentibus futuris* (MS Oxford, BL, Ashmole 186, s. XVI, f. 1r–14v). These works and the present text are undated, but, in his *Observationes astrologiae* (MS London, BL, Sloane 1743, s. XVI, f. 1r–93r), Robyns reports astrometeorological observations throughout the year 1534. The unique manuscript of the *Epitome* is Robyns's autograph copy [Plate 25], which breaks off abruptly after the title of *Quadripartitum* I.4 ('Caput quartum'). It is unclear what the source text is, but the word 'apotelesmata' in the title might indicate that the Greek text was used.

Text '(London, BL, Sloane 1773) Epitome in Apotelesmata Ptolomaei. Caput primum. Duo principia sunt et maxima (*sus.:* candissime (?) et intime meorum amicorum mi Sire (*corr. ex.* Messori)) que ad accidentium futurorum cognitione exiguntur. Declaratio textus. Iste Sirus (*corr. ex* Messorius) erat quidam medicus Ptolomeo familiaris, cui hunc librum apotelesmaticum dedicavit. Hec duo maiora et nobiliora quorum hic facit mentionem Ptolomeus sunt astrologia quadrivialis et scientia apostelesmatica, est ea astrologie pars que de iudiciis et astrorum effectibus tractat — hactenus de prefationis expositione in his tribus capitulis dicta sufficiunt. Caput quartum.'

Bibl. A. Wood, *Athenae Oxonienses. An Exact History of all the Writers and Bishops who Have Had Their Education in the University of Oxford* (Third Edition), I, Oxford, 1813, 262; Thorndike 1923–1958, V, 320 and n. 44.

Modern ed. ---

EDS ---

MSS London, BL, Sloane 1773, s. XVI, f. 57r–117v

C.2.20. Nicolaus Gugler (?), *Ordo ac summa Ptolomei*

A summary of the *Quadripartitum* found in Nicolaus Gugler's personal notebook dated 1536–1537, when he was a student in astronomy at the University of Wittenberg under Joachim Rheticus and Erasmus Reinhold. This summary may derive from, or be somehow related to, the teaching of Philipp Melanchthon, who read the *Tetrabiblos* at Wittenberg from 1535 to 1537 (K. Hartfelder, *Philipp Melanchthon als Praeceptor Germaniae*, Berlin, 1889, 560–61). See also C.2.22.

Text '(Paris, BnF, lat. 7395) Ordo ac summa Ptolomei. (133r–135r) **[BOOK I]** Libri 1. Caput 1. Duplex est ars de astris, astronomia et astrologia. De illa diximus alibi, de hac vero arte minus quidem certa in hoc agemus libro — Gemini, Virgo, Sagittarius, Pisces. (135r–137r) **[BOOK II]** In librum secundum Quadripartiti Ptolomei. Caput 1. Astrologia proprie dividitur in universalem et particularem — Finis secundi libri. (137r–140r) **[BOOK III]** Liber tertius. Caput 1. Hactenus pertractata est universalis astrologia — Finis libri 3. (140r–142r) **[BOOK IV]** In librum quartum. Ut scias prosperitatem et subtantiam nati — Ac primum quid Luna dominatur, demum (?) Mercurius, etc. Finis.'

Bibl. On Nicolaus Gugler, see J. Kraai, *Rheticus' Heliocentric Providence: A Study Concerning the Astrology, Astronomy of the Sixteenth Century*, PhD dissertation, Universität Heidelberg, 2001, 28–35; L. Moulinier-Brogi, 'Un médecin et son image au XVI^{e} siècle? Nicolaus Gugler, de Nuremberg', *SA* 89 (2005), 23–36; K. H. Burmeister, *Magister Rheticus und seine Schulgesellen. Das Ringen um Kenntnis und Durchsetzung des heliozentrischen Weltsystems des Kopernikus um 1540/50*, Konstanz, 2015, 258–64.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7395, s. XVI, f. 133r–142r

C.2.21. Luca Gaurico, *Paraphrases et annotationes in Claudii Ptolomaei libro II Apotelesmatum super luminum eclypsibus*

A commentary on the influence of eclipses in both the *Quadripartitum* (Book II) and the *Centiloquium* (v. 24 and 96), published by Luca Gaurico in 1539, as part of a volume of astrological works addressed to the condottiero Alfonso d'Avalos

d'Aquino (1502–1546). Gaurico makes use of several versions of both texts, i.e. the *Quadripartitum* in Plato of Tivoli's, Egidius de Tebaldis's and Joachim Camerarius's translations (A.2.1, A.2.5 and A.2.9 or A.2.10) and the *Centiloquium* in both George of Trebizond's and Giovanni Pontano's translations (B.1.7 and B.1.9). Gaurico also resorts to at least three additional texts: Manilius's *Astronomica*, Proclus's *Apotelesmata* in a translation attributed to Lorenzo Bonincontri and Hermes's *Centiloquium*. The current work title is taken from the title page of the 1539 edition.

Text '(ed. Rome 1539) Claudii Ptolemaei Alexandrini Apotelesmatum libro II, capite VII de tempore eventuum. Primum in unaquaque regione, cuius situs ratione comprehensus est... Ptolomaeus Centiloquii enunciatio XXIIII. Effectus luminarium in cardinibus geniturarum... (F_{iii}v) L. Gauricus. Ptolemaeus ab intervallo ascendentis ac loci defectus docuit invenire tempus in quo luminarium eclypses incipiunt suos producere effectus — vel alcocodea maximum vitae periculum vel infirmitatem magnam, nisi fortunae aspexerint. Finis.'

Bibl. Delambre 1819, 435; Thorndike 1923–1958, V, 257–58 and n. 22.

Modern ed. ---

EDS Rome, Antonius Bladus Asulanus, 1539, sig. F_{iii}r–[L_{iii}]r

MSS ---

C.2.22. Philipp Melanchthon, ⟨*Lectiones in Quadripartitum*⟩

Lectures on the *Quadripartitum* given by Philipp Melanchthon at the University of Wittenberg in the academic years 1544-1545 and 1545-1546 (and perhaps already in 1543-1544). These lectures are extant in the manuscript of a student, where they appear in the following order: Book III (f. 1r–20r), Book IV (f. 22r–43r), Book I (f. 44r–71r) and Book II (f. 72r–77r). The beginning of the lectures on Book I is dated to 7 November 1544 (cf. f. 44r: 'Inchoant 7 Novembris anno 1544') and the beginning of the lectures on Book II to 16 November 1545 (f. 72r: 'Postea die S. Elisabetae 1545'). No date is given for Books III and IV, but their order of appearance in the manuscript may suggest that they were read before 1544. We know that Melanchthon lectured on the *Quadripartitum* at Wittenberg in the years 1535-1537 and 1543-1545 (K. Hartfelder, *Philipp Melanchthon als Praeceptor Germaniae*, Berlin, 1889, 560–61) and, in particular, that he began lecturing on Book II on 16 November 1545 (*ibid*, 561), which matches the date given in the manuscript. The source text is Melanchthon's translation (A.2.11), which shows that, by 1544 at the latest, Melanchthon had already completed his translation of the *Tetrabiblos*, which he did not publish until 1553. The lectures cover the whole text of the *Quadripartitum* (with gaps, for which the student was at least partly responsible, see MS description) and are accompanied by Melanchthon's 'expositio' in smaller script, typically in the margin. See also C.2.20.

Text '(Munich, BSB, Clm 27002) (1r) In Ptolomei Almagestum (!). [INTRODUCTION] Satis in multis visae partibus prodesse... (1r–20r) [BOOK III] De qualitatibus animae. De corporum accidentibus haec sit doctrina compendio tradita, sed qualitates animae, quae propriae sunt mentis et ratiocinationis -- alias mulieres familiares tanquam coniuges habeant. (22r–43r) [BOOK IV] Liber quartus de eventuum significationibus. Exposui quae ante aeditionem partus spectantur, quaeque partu aedito statim insunt, et quae postea sequuntur -- sed prona est ad mixturam bonorum et malorum. (44r–71r) [BOOK I] Claudii Ptolomaei Quadripartiti liber I. Hic non est disputatio de illo fato a...o (?) sed de fato physico... (44v) Duo sunt, Syre, per quae praedictiones astrologicae extruuntur praecipua et maxima -- aut alio loco aspiciente eum (ut 3 et 5). Sed cum prorsus non aspiciunt (ut in 6, 12, 8), omnino languidi sunt et imbecilles. Finis II libri. (72r–77r) [BOOK II] Liber II Cl<audii> Ptol<emaei>. Praecipuam doctrinam breviter expositam, ut in tabella, necessariam ad praedictiones eventuum singularium -- aliam sumunt naturam, quam qualem habet totus quadrans ad totam orbem collatus.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Munich, BSB, Clm 27002, s. XVI, f. 1r–77v

C.2.23. Giuliano Ristori, ⟨*Lectiones in Quadripartitum*⟩

A series of 113 lectures on the complete text of the *Quadripartitum* in Camerarius's translation (A.2.9, thus including Books III and IV in Plato of Tivoli's translation), delivered by the Carmelite monk Giuliano Ristori (1492–1556) at the University of Pisa in 1547–1548. Book I includes Lectures 1–33, Book II Lectures 34–61, Book III Lectures 62–96 and Book IV Lectures 97–113. All manuscripts have essentially the same text, at least judging from the number and distribution of the lectures and from the incipit and explicit of each book. Ristori was professor of mathematics and astrology at the University of Pisa from 1543 to 1550 and there are reasons to think that he lectured on the *Quadripartitum* in the academic year 1547–1548. First, this is the date given in MS Modena, BEU, Campori 1635, where the lectures began in 1547 (f. 1r) and ended on 19 June 1548 (f. 258v). Second, in the course of Lecture 20, the current date is given as 29 November 1547 ('quia est dies 29 Novembris 1547'). The fact that all manuscripts bear this very same date (Florence, BNC, Conv. Soppr. B.VII.479-I, f. 104v; Florence, BNC, Conv. Soppr. F.IX.478, f. 73v; Florence, BR, 157, f. 87v; Modena, BEU, Campori 1635, f. 47r) suggests that Ristori lectured on the *Quadripartitum* in 1547–1548 for the first time — and, possibly, for the last time as well. The date given in the explicit of MS Florence, BNC, Conv. Soppr. F.IX.478, 'Die 19 Iunii Pisis 1547', is evidently a mistake for 1548. Finally, Francesco Giuntini (on whom see C.2.34) tells us that he

attended Ristori's lectures on the *Quadripartitum* in Pisa in 1548 (see also Bezza/De Meis, 55 n. 5; Rutkin, 'Teaching Astrology', 357 and n. 23).

Note Two manuscripts appear to be those of students, Amerigo Roncioni (Florence, BR, 157, continued in Florence, BNC, Magliabech. XI.103) and Petrus Bertachius (or Bertacha), priest of Camporeggiano (Modena, BEU, Campori 1635). In Florence, BNC, Conv. Soppr. F.IX.478 (possibly in Ristori's hand), Ristori's name has been corrected into Filippo Fantoni [Plate 26], while in Florence, BNC, Conv. Soppr. B.VII.479, his name has been replaced by Filippo Fantoni. Fantoni taught mathematics at Pisa from 1560 to 1566 and from 1582 to 1589. This shows that Fantoni reused Ristori's lectures without significant changes. MS Florence, BNC, Conv. Soppr. B.VII.479 includes corrections and additions in the same hand that added the title with Fantoni's name, but these corrections and additions do not extend beyond Lecture 12. There is evidence that MS Florence, BNC, Conv. Soppr. F.IX.478 was used also in teaching from early November 1558 to 26 January 1559 (see MS entry). This seems too early for Fantoni and would better fit Francesco Ottonaio, the immediate successor of Ristori as professor of mathematics at Pisa (in his autobiography, Giuliano de' Ricci says that he attended lectures on Ptolemy's *Quadripartitum* in Santa Maria del Carmine in Florence in 1558, see Bezza/De Meis, 55 n. 3). Then, presumably, the same manuscript was used again for teaching by Fantoni, either between 1560 and 1566 or between 1582 and 1589. The relationship between the four manuscripts would require a detailed study, but it is interesting to note the variations in the incipit from 'Cum in omni scientia...' (Florence, BR, 157 and Modena, BEU, Campori 1635) to '~~Cum~~ in omni scientia...' (Florence, BNC, Conv. Soppr. F.IX.478) to 'In omni scientia...' (Florence, BNC, Conv. Soppr. B.VII.479). This seems to indicate that MS Florence, BNC, Conv. Soppr. F.IX.478 was the manuscript used in teaching from Ristori (to Ottonaio) to Fantoni, while Florence, BNC, Conv. Soppr. B.VII.479 would be a later copy of the former, presumably under Fantoni's supervision. The fact that this manuscript was copied by four alternating hands makes it unlikely to be a student's copy. If these assumptions are correct, then the corrections to Florence, BNC, Conv. Soppr. B.VII.479 are probably in Fantoni's hand (and Fantoni might also be responsible for correcting the title and colophon of Florence, BNC, Conv. Soppr. F.IX.478). All this seems to suggest that Fantoni appropriated Ristori's lectures for himself.

Text '(Florence, BNC, Conv. Soppr. F.IX.478) In Quadripartitum Tholomaei regis expositio praeclara magistri ~~Iuliani de Ristoriis Pratensis astrologiam~~ (*corr. in* Philippi de Fantoniis mathesim) profitentis in almo studio Pisano, una cum questionibus necnon observationibus comprobatur undique textus. (1r–126v) [**BOOK I**] ~~Cum~~ in omni scientia ~~plura preponuntur et~~ ut Avere (!) testis est — et sic habetis quae dici potuerunt in hac re. Et haec de isto primo libro dicta sufficiant. (127r–236r) [**BOOK II**] Liber secundus. Incipit liber secundus cum expositione.

Lectio trig<inta> quarta. Hactenus quidem percurrimus: Iste est secundus liber Pt<holome>i in quo cum in primo declaravit — et regulae certissimae et comprobatae. Et haec sufficiant (?) quo ad istum secundum librum. Finis secundi libri. (236v–380v) [**BOOK III**] Liber tertius Quadripartiti Tholomaei regis cum expositione magistri Iuliani Ristorii Pratensis Carmelitae. Cap. 1. Lectio sexagesima secunda. Huc usque accidentia generalia: Ista est secunda pars principalis huius voluminis in qua Pt<olomeu>s pertractat ea quae spectant ad particularia nati — ut patuit in genitura Martini Lutheri. Et haec de libro isto tertio. Dicta (?) sufficiant pro nunc. Deo sit laus et gratia. (381r–440v) [**BOOK IV**] Lectio nonagesima septima. Rerum igitur in quibus ea qua ante partum sunt et quae in ipsius: Iste est quartus liber Apotelesmatum Pto<lom>ei, in quo cum declaravit — vobis autem gratias refero quamplures et valete. Die 19 Iunii Pisis 1547. Finis ~~commentariorum~~ (*corr. in* lectionum) ... (?) magistri (?) Philippi Fantonii ... (?) in Pt<olom>ei Quadripartitum. ~~Completus die Iovis 26 Ianuarii hora ... (?) 1558~~ [= 1559].'

Bibl. C. B. Schmitt, 'The Faculty of Arts at Pisa at the Time of Galileo', *Physis* 14 (1972), 243–72: 259 and n. 82 (reprinted in C. B. Schmitt, *Studies in Renaissance Philosophy and Science*, London, 1981, IX); C. B. Schmitt, 'Filipo Fantoni, Galileo Galilei's Predecessor as Mathematics Lecturer at Pisa', in *Science and History. Studies in Honor of Edward Rosen*, eds E. Hilfstein, P. Czartoryski, F. D. Grande, Wrocław-Warszawa, 1978, 53–62: 59 (reprinted in C. B. Schmitt, *Studies in Renaissance Philosophy and Science*, London, 1981, X); R. Castagnola, 'Un oroscopo per Cosimo I', *Rinascimento* 29 (1989), 125–89: 131 n. 11; H. D. Rutkin, 'The Use and Abuse of Ptolemy's *Tetrabiblos* in Renaissance and Early Modern Europe: Two Case Studies (Giovanni Pico della Mirandola and Filippo Fantoni)', in Jones 2010, 135–49: 141–45 and 146 n. 3; R. S. Westman, *The Copernican Question. Prognostication, Skepticism, and Celestial Order*, Berkeley-Los Angeles-London, 2011, 354 and 575 n. 6; G. Bezza, S. De Meis, 'The Chapter on Comets in the Commentary to *Quadripartitum* by Giuliano Ristori', *MHNH* 13 (2013), 53–76; H. D. Rutkin, 'Teaching Astrology in the 16th Century: Giuliano Ristori and Filippo Fantoni on Pseudo-Prophets and Other Effects of Great Conjunctions', in *From Māshā'allāh to Kepler: Theory and Practice in Medieval and Renaissance Astrology*, eds C. Burnett, D. G. Greenbaum, Ceredigion, 2015, 353–406: 363–65.

Modern ed. None, except for Lecture 57 on comets, ed. Bezza/De Meis, 59–63, from MS Florence, BR, 157, f. 229r–232v.

EDS ---

MSS Florence, BNC, Conv. Soppr. B.VII.479, s. XVI, 2 vols (338 + 335 f.)
Florence, BNC, Conv. Soppr. F.IX.478, s. XVI, f. 1r–440v
Florence, BNC, Magliabech. XI.103, s. XVI, f. 2r–67v (Book III, incomplete)
Florence, BR, 157, s. XVI, f. 1r–248v (Books I–II)
Modena, BEU, Campori 1635 (Gamma E.4.13), s. XVI, f. 1r–258v

C.2.24. Girolamo Cardano, *In Ptolemaei librorum de iudiciis astrorum commentaria*

A sizeable lemmatic commentary on the *Quadripartitum* in Antonius Gogava's translation (A.2.10), published by Girolamo Cardano (1501–1576) in Basel in

1554, in a volume of astrological texts dedicated to John Hamilton, archbishop of St Andrews. At a later stage, Cardano thoroughly revised his commentary for a new edition that was published posthumously in 1578 (the 1663 edition of Cardano's complete works reproduces this revised edition). Cardano's *In Ptolemaei librorum de iudiciis astrorum commentaria* was the source text of commentaries C.2.29 and C.2.39, and was also used in commentary C.2.37.

Text '(ed. Basel 1578) (a_4r–a_5r) **[GENERAL PREFACE]** Hieronymi Cardani Mediolanensis medici in Ptolemaei librorum de iudiciis astrorum commentaria prooemium. Semper mos ille viguit, ut qui imperitissimus esset, bonis omnibus artibus malediceret — stolidius vero longe pertinaciter ineptire. (a_5v–[a_6]r) **[PREFACE TO THE READER]** Hieronymi Cardani Mediolanensis medici in commentaria astronomica ad pium lectorem praefatio. His nugonibus qui artem ipsam vanitatis aut impietatis perperam accusant — nihil absurdum aut impium forsan dixeris. ([a_6]v) **[SECOND PREFACE TO THE READER]** Praefatio ad lectorem eiusdem utilissima admonitio. Quanquam nemo soleat ei arti quam profiteri vult — studii disciplinae huius. (97–98) **[COMMENTATOR'S PREFACE]** Claudii Ptolemaei Pelusiensis libri quatuor de astrorum iudiciis cum expositione Hieronymi Cardani Mediolanensis medici. Proeemium expositoris. Libros hos antiquorum more de iudiciis inscripsit Ptolemaeus Pelusiensis Aegyptius, unde Alexandrinus etiam dictus est — dividentes singula capita prout commodius videbitur. (99–208) **[BOOK I]** [TEXT] Prooemium authoris. Caput I. Textus I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima... [COMM.] Commentarius. Authores prooemia faciunt, ut quod non ex arte est ad artem tamen est necessarium explicetur — in septimo prudentiae, in quarto stabilitatis. (209–317) **[BOOK II]** Claudii Ptolemaei mathematici de iudiciis liber secundus cum expositione Hieronymi Cardani Mediolanensis medici. [TEXT] Proemium authoris. Caput I. Textus I. Hactenus quidem percurrimus ea, quorum maxime cognitionem praedictiones... [COMM.] Commentarius. Generalem expositionem eventuum in universo orbe quam hic proponit arduum — dum de coloribus deliquiorum loquemur. Finis secundi libri. (318–421) **[BOOK III]** In commentaria tertii libri Ptolemaei de iudiciis Hieronymi Cardani Mediolanensis medici ad reverendissimum D. Ioannem Hamulthonum Sancti Andreae archiepiscopum legatum etc. praefatio. Hactenus de generalibus iudiciis tractatum est... [TEXT] Claudii Ptolemaei mathematici de iudiciis liber tertius, caput primum, quod est prooemium. Textus I. Explicata a nobis in prioribus communium eventuum... [COMM.] Commentarius. Declarat rationes dictas in praecedenti prooemio, sed concludit initium unum esse principale — ad unguem etiam est intelligenda de progressionibus. Finis tertii libri. (421–510) **[BOOK IV]** [TEXT] Claudii Ptolemaei mathematici de iudiciis liber quartus, caput primum, quod est prooemium. Textus I. Quae igitur genituram praecedunt illive connexa sunt... [COMM.] Commentarius. Quatuor proposuerat superius tranctanda, scilicet genituram antecedentia — et nova directio per meridianos iuxta proportionis aut circulos positionis reditus an processus significatorum electio. Et loci mutati aut mutati ingressibus comparati. Hieronymi Cardani medici Mediolanensis expositionum in Claudii Ptolemei libros IIII De iudiciis finis.'

Bibl. A. Ingegno, *Saggio sulla filosofia di Cardano*, Firenze, 1980, 41–56; A. Grafton, *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer*, Cambridge (Mass.), 1999,

134–55; G. Ernst, '"Veritatis amor dulcissimus": Aspects of Cardano's Astrology', in *Secrets of Nature. Astrology and Alchemy in Early Modern Europe*, eds W. R. Newman, A. Grafton, Cambridge (Mass.)-London, 2001, 39–68; P. Pizzamiglio, *L'astrologia in Italia all'epoca di Galileo Galilei (1550–1650). Rassegna storico-critica dei documenti librari custoditi nella Biblioteca 'Carlo Viganò'*, Milano, 2004, 20–31; O. Pompeo Faracovi, 'Girolamo Cardano e il ritorno a Tolomeo', in *Il linguaggio dei cieli. Astri e simboli nel Rinascimento*, eds G. Ernst, G. Giglioni, Roma, 2012, 125–38.

Modern ed. ---

EDS Basel, Henricus Petri, 1554, sig. a_4r–363
Lyon, Theobaldus Pagandus, 1555, first part, sig. A^*_4v–815
Basel, Henricus Petri, 1578, sig. a_4r–[a_6]v and 97–510
Lyon, Joannes Antonius Huguetan & Marcus Antonius Ravaud, 1663, vol. V, sig. 93–368

C.2.25. Pseudo-Porphyry, *Introduction to the Tetrabiblos* [Greek]

Εἰσαγωγὴ εἰς τὴν Ἀποτελεσματικὴν τοῦ Πτολεμαίου ('Introduction to Ptolemy's Apotelesmata') consistently attributed to Porphyry (late third century AD) in the *c.* 30 extant Greek manuscripts and in the two Latin translations. The attribution to Porphyry has generally been accepted in the modern literature, but László demonstrated that most of the text, if not the whole text, cannot be by him. The text consists of a general introduction to astrology that goes beyond the *Tetrabiblos*. The work was translated into Latin twice, by Hieronymus Wolf (C.2.25.1) and by Vincenzo Riccardi (C.2.25.2).

Bibl. F. Boll, 'Studien über Claudius Ptolemäus. Ein Beitrag zur Geschichte der griechischen Philosophie und Astrologie', *Jahrbücher für Classische Philologie*, Suppl. 21 (1894), 49–244: 112–18; C.-E. Ruelle, 'Texte astrologique attribué à Démophile et rendu à Porphyre: historique de la question', *Revue des Études Grecques* 24 (1911), 334–36; F. Cumont, 'Antiochos d'Athènes et Porphyre', *Annuaire de l'Institut de Philologie et d'Histoire Orientale* 2 (1934), 135–56; Gundel/Gundel 1966, 213–15; D. Pingree, 'Antiochus and Rhetorius', *Classical Philology* 72 (1977), 203–23; D. Pingree, *The Yavanajātaka of Sphujidhvaja*, Cambridge (Mass.)-London, 1978, II, 438; D. Pingree, 'From Alexandria to Baghdād to Byzantium. The Transmission of Astrology', *International Journal of the Classical Tradition* 8 (2001), 3–37: 7–8; S. Heilen, *Hadriani genitura – Die astrologischen Fragmente des Antigonos von Nikaia*, Berlin-Boston, 2015, I, 24–27; D. Greenbaum, *The Daimon in Hellenistic Astrology. Origins and Influence*, Leiden, 2016, 266–75; L. László, 'Revisiting the Authenticity of Porphyry's *Introduction to Ptolemy's Apotelesmatics*', *Classical Philology* 116 (2021), 392–411.

Modern ed. The *editio princeps* of the Greek text was published by Hieronymus Wolf in Basel in 1559, together with his Latin translation (see C.2.25.1). Critical edition by E. Boer, S. Weinstock, 'Porphyrii philosophi Introductio in Tetrabiblum Ptolemaei', in *Catalogus Codicum Astrologorum Graecorum*, V.4, Bruxelles, 1940, 185–228. This critical edition has

been translated into English by J. Holden, *Porphyry the Philosopher: Introduction to Ptolemy's Tetrabiblos and Serapio of Alexandria: Astrological Definitions*, Tempe (Ar), 2009, and into Italian by G. Bezza, 'Porfirio. Introduzione all *Tetrabiblos* di Tolomeo', in *Studi sull'arte dei decreti delle stelle in memoria di Guiseppe Bezza*, ed. F. Martorello, Sarzana-Lugano, 2022, 143–75.

C.2.25.1. Pseudo-Porphyry, *Introductio in Claudii Ptolemaei Opus de effectibus astrorum*, tr. Hieronymus Wolf

A translation of Pseudo-Porphyry's *Introduction to the Tetrabiblos* (C.2.25) by Hieronymus Wolf, who published it in Basel in 1559, together with the Greek original text, in two columns.

Text '(ed. Basel 1559) Porphyrii philosophi Introductio in Claudii Ptolemaei Opus de effectibus astrorum. Praefatio. Quia doctrinam de temperatura coelestium corporum et effectuum genera per illam doctrinam observata — Venus et Mercurius 14, 7 ante et totidem post. Finis.'

Bibl. S. Heilen, H. Zäh, 'Who Edited and Who Translated the Anonymous Commentary to Ptolemy's *Tetrabiblos* and (Ps.-)Porphyry's *Isagoge* (Basel 1559)?', *MHNH* 20 (2020), 93–128.

Modern ed. ---

EDS Basel, Henricus Petri, 1559, sig. 181–204.

MSS ---

C.2.25.2. Pseudo-Porphyry, *Introductio in Apotelesmata Ptolemaei*, tr. Vincenzo Riccardi

A translation of Pseudo-Porphyry's *Introduction to the Tetrabiblos* (C.2.25) by Vincenzo Riccardi (Vincentius Riccardus, d. 1662), priest of the Theatine Order, who addressed the work, together with the Greek original text, to Cardinal Francesco Barberini in 1642. The Vatican MS is the presentation copy, while the Rome MS contains the draft copy in Riccardi's hand.

Text '(Vatican, BAV, Barb. gr. 262) Porphyrii philosophi Introductio in Apotelesmata Ptolemaei. Proemium. Cum de iis quae doctrinam coelestium continent corporum quaeve ex illa — et Mercurii 14 ante 7 et pone 7. Finis.'

Bibl. D. Surace, 'Copisti greci in tre codici sconosciuti della Biblioteca Nazionale Centrale di Roma (S. A. Valle 100, 102–03)', *Νέα Ῥώμη. Rivista di Richerche Bizantinistiche* 8 (2011), 219–303: 266–68 n. 86 (and 265–66 n. 83 on Vincenzo Riccardi).

Modern ed. ---

EDS ---

MSS Rome, BNC, S. A. Valle 103, s. XVII, f. 884r–898r
Vatican, BAV, Barb. gr. 262, s. XVII, f. 7r–42r

C.2.26. Filippo Fantoni, ⟨*Lectiones in Quadripartitum*⟩

See C.2.23 (Giuliano Ristori), under Note.

C.2.27. Thomas Allen, ⟨*Expositio in Claudii Ptolomaei Pelusiensis de astrorum iudiciis*⟩

A commentary on *Quadripartitum* II–III in Antonius Gogava's translation (A.2.10), written by the Oxford astrologer and book collector Thomas Allen (1540–1632). The dates 1551 and 1556 are given as examples of computed directions in III.17 (Oxford, BL, Ashmole 388, f. 106r), which might suggest a relatively early date for the work.

Text '(Oxford, BL, Ashmole 388) (1r–35v) **[BOOK II]** Claudii Ptolomaei Pelusiensis de astrorum iudiciis aut, ut vulgo vocant, quadripartitae constructionis liber secundus cum expositione Thomae Alleyn Angli, Oxoniensis. Caput primum. Hactenus quidem percurrimus ea quorum cognitionem prognosticationes et predictiones rerum particularium — superius declarata sunt. Finis libri secundi. (36r–117r) **[BOOK III]** De astrorum iudiciis liber tertius. Caput primum. Communium eventuum et accidentium generalium — honestis et pudicis verbis, tecte et occulte describit. Finis libri tertii. Maii 14º 1643.'

Bibl. A. Wood, *Athenae Oxonienses. An Exact History of all the Writers and Bishops who Have Had Their Education in the University of Oxford* (Third Edition), II, Oxford, 1815, 543–44; A. G. Watson, 'Thomas Allen of Oxford and His Manuscripts', in *Medieval Scribes, Manuscripts and Libraries: Essays presented to N. R. Ker*, eds M. B. Parkes, A. G. Watson, London, 1978, 279–314: 279 n. 2 and 301; M. Foster, 'Thomas Allen (1540–1632), Gloucester Hall and the Survival of Catholicism in Post-Reformation Oxford', *Oxoniensia* 46 (1981), 99–128: 111 and n. 82; M. Feingold, *The Mathematicians' Apprenticeship. Science, Universities and Society in England, 1560–1640*, Cambridge, 1984, 157 and n. 194.

Modern ed. ---

EDS ---

MSS London, BL, Sloane 1779, s. XVI, f. 54r–159v
Oxford, BL, Ashmole 388, s. XVII, f. 1r–117r

C.2.28. ⟨*Lectiones Pavienses in Quadripartitum*⟩

Lectures on the *Quadripartitum* given at the University of Pavia probably in the third quarter of the sixteenth century. In the only known manuscript, these lectures are three in number, the first two of which are in Latin, while the third one is in

Italian 'by order of the duke', i.e. the duke of Milan (f. 360r: 'Di commissione del duca inconovincio leggere volgare'). These lectures are found among a collection of university lectures on Aristotle's works. Some of these lectures were given by Cesare Rovida (d. *c.* 1591), professor of medicine at the University of Pavia, and three of them are dated 1558, 1562 and 1571.

Text (Milan, BA, D. 142 inf.) 'Interpretaturi quadripartitam constitutionem Claudi (!) Ptolomei, in qua tradit precepta iudiciorum exercendorum (?) antequam verborum interpretationem aggrediamur, prius nosce oportet novem problemata. Primum, qui nam sit hic Claudus (!) Ptolomeus qui hos libros conscripsit... (358r) Secunda lectio [title in margin]. Ex novem problematibus propositis, duo determinavimus... (360r) Tertia lectio. Di commissione del duca inconovincio leggere volgare [in margin]. Poi che noi havemo determinato — al nostro vertice produce maggior calore.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Milan, BA, D. 142 inf., s. XVI, f. 355r–363v

C.2.29. *Epitome comentariorum auctoris incerti nominis in Ptolemei de astrorum iudiciis libri 4*

This 'epitome of the commentaries of an author of uncertain name' is in fact a summary of Cardano's *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24). This summary covers the four books and deals with Cardano's commentary only, not with Ptolemy's original text. The horoscopes reproduced in the text (f. 64r, 67r, 74r, 86v and 87v) are also taken from Cardano. The author used Cardano's edition of 1554 or 1555, for the second of these horoscopes (f. 67r = ed. 1554, sig. 235; ed. 1555, sig. 528) is omitted in the revised edition of 1578. This might suggest that the *Epitome* was written between 1554 and 1578. In any case, the only known manuscript, copied in the seventeenth century probably in Italy, is unlikely to be the original. It is unclear whether the 'author of uncertain name' denotes Cardano or the author of the *Epitome*.

Text '(Florence, BNC, Panciatichiano 309) Epitome comentariorum auctoris incerti nominis in Ptolemei de astror<um> iudic<iis> lib<ri> 4. (32r–42r) **[BOOK I]** Duo sunt principia praecipua astronomicae scientiae. Primum est cognitio stellarum tam erraticarum quam fixarum — eo magis erunt validiora. (42r–59v) **[BOOK II]** Epitome comentariorum auctoris incerti nominis in Ptolemei de astrorum iudiciis liber secundus. Cap. I. Dividitur etiam tota astronomia in principia et apotelesmata tota — ex his omnibus perfecte habeamus quae ad tempus ... (?). (60r–77r) **[BOOK III]** Epitome comentariorum auctoris incerti nominis in Ptolemei de astrorum iudiciis liber tertius. Cap. I. Hactenus de generalibus iudiciis — Iupiter

autem haec moderatiora reddit. (77r–90v) **[BOOK IV]** Epitome comentariorum auctoris incerti nominis in Ptolemei de astrorum iudiciis liber quartus. Cap. I. De nati fortunis. ... (?) omnia quae ad divitiarum acquisitionem pertinentem — Haec autem dicta sufficiant circa explanationem quatuor librorum Ptolemei.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Florence, BNC, Panciatichiano 309, s. XVII, f. 32r–90v

C.2.30. Valentin Nabod, *In Claudii Ptolemaei Quadripartitae constructionis apotelesmata commentarius novus et eiusdem conversio nova*

An extensive commentary on the complete text of the *Quadripartitum* composed by the German mathematician and astrologer Valentin Nabod (1523–1593) in Padua not earlier than 1574, a date occurring in a table towards the end of Book IV (London, BL, Sloane 216, f. 357r: 'Canonion revolutionum ab anno 1574'). The commentary, organised by chapter, is interspersed with Ptolemy's text in a new translation from the Greek prepared by Nabod himself (A.2.12). None of the surviving manuscripts is complete. The most important of them appears to be London, BL, Sloane 216, which is missing the preface and several sections of Book I, while the preface alone is extant in MS Milan, BA, A. 71 inf. None of the manuscripts listed below seems to be in Nabod's hand, judging from an autograph letter by him preserved in MS Milan, BA, S. 77 sup., f. 295r–299r. The text was never printed, with the exception of selected passages from chapters III.10–11 published by Magini in 1607 (C.2.38). Nabod had already used Ptolemy extensively in his *Enarratio elementorum astrologiae* (ed. Cologne, apud haeredes Arnoldi Birckmanni, 1560), a work consisting of a critical assessment of Alcabitius's *Introductorius* in the light of Ptolemy's astrological doctrines.

Text '(Milan, BA, A. 71 inf.) **[PREFACE]** Quoniam vero summam totius operis praecognovisse multum interest ideo attexam hic argumentum breve seu periodum horum quattuor Ptholomei librorum de effectibus siderum — Sequuntur ergo libri primi capitula.'

'(London, BL, Sloane 216) (1v) Valentini Naibodae mathematici praeclarissimi in Claudii Ptolemaei Quadripartitae constructionis apotelesmata commentarius novus et eiusdem conversio nova. (2r–13v) **[BOOK I]** [TEXT] Prooemium deest. Quod futurorum per astronomiam praecognitio sit quaedam ars et quousque progrediatur. Caput primum. Facile patescit, breviterque perspicuum fieri potest omnibus quod de aeterea et externa natura vis quaedam diffundatur — et etiam alimoniam aut etiam aliqua quae iam evenerunt. (4r)

[COMM.] In caput primum comment<arius>. Vult ostendere Ptolomaeus in hoc capite caeli in subiectam materiam — omnia reperti imbecilles et prorsus infirmi habentur. Apotelesmatis primi finis. (14r–91v) **[BOOK II]** [TEXT] Valentini Naibodae mathematici praeclarissimi in Claudii Ptolemaei Quadripartitae constructionis apotelesmaticum secundum commentarius novus et conversio eiusdem nova. Prooemium. Cap. I. Artis igitur elementorum tanquam per tabellas expositorum — quibus conciliantur, quam dodecatemoriorum quibus subsunt. (14v) [COMM.] In caput primum commentaria. Textus I. Artis igitur elementorum tanquam per tabellas expositorum: Praedictum est totum opus distribui in principia rerum — sed solum ad singulos homines peculiariter attinent. Apotelesmatis secondi finis. (92r–263v) **[BOOK III]** [TEXT] Valentini Naibodae mathematici praeclarissimi in Claudii Ptolemaei Quadripartitae constructionis apotelesmaticum tertium commentarius novus et eiusdem conversio nova. Caput primum quo est prooemium. Postquam in superioribus explicata est a nobis casuum universitati evenientium theoria — deinceps suo loco dicendam distributionem. (92v) [COMM.] In caput primum commentarius. Textus primus. Postquam in superioribus explicata est a nobis: (93r) Hoc est voluminis tertii prooemium continens doctrina — opponitur loci dominus extiterit, ut suo loco est dictum. Finis libri tertii. [ADDITIONAL NOTE] Adverte quod in genitura Iohannis Baptista Cardani horoscopus est gradu 15 Sagittarii — ad qualitatem mortis ex capitis truncatione significandam. (264r–377v) **[BOOK IV]** [TEXT] Valentini Naibodae mathematici praeclarissimi in Claudii Ptolemaei Quadripartitae constructionis apotelesmaticum quartum commentarius novus et eiusdem conversio nova. Caput primum, quod est prooemium. Textus primus. Quaecunque de utrisque et quae genituram praecedunt et quae eidem adiunguntur cognosci poterant — vero cum illis quae ad animum spectant. (264v) [COMM.] Valentini Naibodae in caput primum commentaria. Quaecunque de utrisque et quae genituram praecedunt et quae: Hoc primum caput solam habet et ex se claram — Itaque hic et in hoc termino noster quoque interpretandi commentandique labor finem iam accipiat.'

Bibl. Thorndike 1923–1958, VI, 120–22; L. Bellizia, 'Valentin Naboth. Matematico, astronomo, astrologo', *BC* 20 (2014), 645–53: 649.

Modern ed. ---

EDS ---

MSS Boston, PL, Ms. f.E.190.82 (Boncompagni 469), s. XVII, f. 1r–182v + 1r–140v (Books III–IV)
London, BL, Sloane 216, s. XVI–XVII, f. 1r–377v (almost complete)
Milan, BA, A. 71 inf., s. XVI, f. 89r–94r (preface)
Naples, BN, VIII C 39, s. XVI–XVII, f. 1r–164v (Book IV)
Naples, BN, VIII C 51, s. XVI–XVII, f. 1r–233r (Book III)
Naples, BN, VIII C 52, s. XVI–XVII, f. 1r–133r (Book IV)
Oxford, BL, Savile 99, s. XVII, f. 8r–185r (almost complete)
Oxford, SJC, 37, s. XVII, f. 1r–175r (almost complete)

C.2.31. Conrad Dasypodius, *Scholia in quatuor libros Ptolemaei Apotelesmaticos*

A Latin commentary on the complete Greek text of the *Tetrabiblos* written by Conrad Dasypodius (1531–1601), professor of mathematics at the University of Strasbourg, in 1578 (31 January according to the preface). The text is addressed to the astrologer Heinrich Rantzau. See also C.2.32–33.

Text '(ed. Basel 1578) (719) Nobilitate, doctrina atque prudentia excellentissimo, ornatissimoque equiti Holsato, Henrico Ranzovio, regis Daniae etc., in ducatibus Holsatiae, Slesuvitz et Dietmarsch vicario atque consiliario, domino in Bredenberg, Rantzovisholm, Vandesburg etc., domino et mecoenati suo observandissimo S. D. (719–721) **[PREFACE]** Homines non sentiunt nec intelligunt quantum detrimenti rebus humanis adferat rerum naturalium ignorantia — studia et labores tuae humanitati atque benivolentiae commendo. Cal. Februarii, anno 1578, Argentinae. T. cliens. Cunradus Dasypodius, professor mathematicus academiae Argentoratensis. (722) [Two horoscopes for Heinrich Rantzau and his wife.] (723) **[TITLE]** Scholia in quatuor libros Ptolemaei Apotelesmaticos Cunradi Dasypodii mathematici ordinarii academiae Argentoratensis. (723–725) **[INTRODUCTION]** Prooemium. In his meis scholiis, haec potissimum persequar primo vocabula Ptolemaei Graeca difficiliora si opus sit explicabo, deinde sententiam Ptolemaei, tertio capita singular in suas distribuam partes — et res quae his tranctantur quatuor libris et rerum ordinem atque dispositionem. (725–739) **[BOOK I]** Liber primus. Caput primum. De astronomiae et astrologiae differentia. Τὸ δι' ἀστρονομίας προγνωστικὸν τέλος: Ostendit his verbis finem astrologiae esse — plurimum inde utilitatis percipient. Finis libri primi. (740–745) **[BOOK II]** Claudii Ptolemaei Apoteslesmatum liber secundus. Caput primum. De partibus prognosticae scientiae per astra et illarum divisione. Πινακικῶς: Quia singula ita explicavit, ut distincta essent — quam Deo iuvante brevi uberioribus commentariis illustrabo. (745–754) **[BOOK III]** Claudii Ptolemaei Apoteslesmatum liber tertius. Caput primum. De semine et natali tempore. In tertio libro atque quarto totam complectitur doctrinam genethlialogicam — et serie ac continuatione rerum ex natura depromptarum. Finis libri tertii. (755–758) **[BOOK IV]** Claudii Ptolemaei Apoteslesmatum liber quartus. Caput primum. De bonis fortunae ac possessionibus. In prooemio huius capitis repetit paucis quae tractavit et quae tractanda restent — et in integrum restitutis praedictionibus astrologicis. Finis.'

Bibl. G. Oestmann, *Heinrich Rantzau und die Astrologie: Ein Beitrag zur Kulturgeschichte des 16. Jahrhunderts*, Braunschweig, 2004, 104–07 and 227–30.

Modern ed. ---

EDS Basel, Henricus Petri, 1578, sig. 719–758

MSS ---

C.2.32. *Conrad Dasypodius, In IIII libros Ptolemaei De astrorum iudiciis sive Apotelesmaticos resolutiones*

A summary of the *Tetrabiblos* in tabular form put together by Conrad Dasypodius in 1578 (24 July according to the preface) and addressed to Heinrich Rantzau. See C.2.31.

Text '(ed. Basel 1578) Cunradi Dasypodii in IIII libros Claudii Ptolemaei de astrorum iudiciis sive Apotelesmaticos resolutiones. (765–768) **[PREFACE]** Nobilitate, doctrina atque prudentia excellentissimo atque ornatissimoque equiti Holsato, Henrico Ranzovio, serenissimi regis Daniae etc., in ducatibus Holsatiae, Slesuvitz et Dietmarsch vicario atque consiliario, domino in Bredenberg, Rantzovilsheim, Vandesburg etc., domino et mecoenati suo observandissimo S. D. In libris Ptolemaei Apotelesmaticis duo praecipue laude digna sunt, unum quidem magnitudino et excellentia rerum — in has regias disciplinas impendis ad nobilissimae et antiquissimae vestrae familiae laudem et gloriam amplificandam et cultum mathematωn augendum. Vale. 24 Iulii 1578, Argentinae. T. cliens. Cunradus Dasypodius mathematicus. (769) **[TITLE]** Cl<audii> Ptolemaei Phelusiensis IIII librorum de astrorum iudiciis, aut ut vulgo vocant Quadripartitae constructionis, brevis et succincta resolutio autore Cunrado Dasypodio Argentoratensis academiae mathematico ordinario. (769–801) **[BOOK I]** Hoc volumen dividitur in (1) prooemium, quo tria docet — circa honores. Finis libri primi. (801–822) **[BOOK II]** Claudii Ptolemaei mathematici clarissimi de iudiciis astrorum liber II. Caput primum. 1. Locus et est effectus — borealis. Finis libri secundi. (823–829) **[BOOK III]** Claudii Ptolemaei Pelusiensis de iudiciis astrorum liber III. Caput primum. Exordium rerum peculiariter hominibus contingentium — et beneficae in occidentali angulo. Finis tertii libri. (829–832) **[BOOK IV]** Claudii Ptolemaei de iudiciis astrorum liber IIII. Caput primum. De nati fortunis. Magna fortuna in divitiis octo modis habentur — per ingressus planetarum in praecipua loca. Finis librorum Apotelesmaticorum IIII.'

Bibl. ---

Modern ed. ---

EDS Basel, Henricus Petri, 1578, sig. 763–832

MSS ---

C.2.33. Conrad Dasypodius, *Aphorismi astrologici ad lectionem Apotelesmaton Ptolemaei utiles*

A collection of aphorisms useful for reading the *Tetrabiblos*, put together by Conrad Dasypodius in 1578. See C.2.31.

Text '(ed. Basel 1578) Aphorismi astrologici ad lectionem ApotelesmatΩn Ptolemaei utiles. Progressio physica. Ex calido, frigido, humido, sicco, primis inquam qualitatibus procedunt, secundae qualitates — atque iuxta illam comparationem iudicare. Finis aphorismorum.'

Bibl. ---

Modern ed. ---

EDS Basel, Henricus Petri, 1578, sig. 833–838
Ulm, Ludovicus Lanovus, 1674, second part, sig. 57–76

MSS ---

C.2.34. Francesco Giuntini, *In duos posteriores Ptolemaei Quadripartiti libros absolutissima commentaria*

A massive commentary on *Quadripartitum* III–IV — possibly the largest of all Latin Ptolemaic works — published by Francesco Giuntini (Franciscus Junctinus, 1523–1590) in Lyon in 1581 (reprinted 1583), as part of the second edition of his *Speculum astrologiae*. The first edition of the *Speculum*, published in 1573, does not contain any Ptolemaic text. Giuntini's commentary is based on the Greek text and on Plato of Tivoli's Latin translation (A.2.1), both of which are reproduced in full. The commentary is preceded by Books I–II in both the Greek text and Joachim Camerarius's Latin translation (A.2.9), which suggests that Giuntini was not aware of the existence of Gogava's translation of Books III–IV (A.2.10). One of the sources of the commentary were Ristori's lectures on the *Quadripartitum* (C.2.23), which Giuntini attended in Pisa in 1548, as he himself explains: 'Frater Iulianus Ristorus Pratensis, carmelita, theologus et mathematicus excellentissimus, cum exponeret anno domini 1548 in gymnasio Pisano publice Ptolemaei Quadripartitum, quem ego audivi, et ipso docente multa notabilia excepi, quae scripta sunt in hoc libro' (ed. Lyon 1581/1583, sig. 126).

Text '(ed. Lyon 1583) Francisci Iunctini Florentini theologi et mathematici peritissimi in duos posteriores Ptolemaei Quadripartiti libros absolutiss<ima> comment<aria>. (109–10) **[INTRODUCTION]** Prolegomena. Apud veteres scholiastes in more est positum, ut, antequam ad auctoris enarrationem descendant, quem sibi explicandum sumpserunt — restat vi ad rem ipsam accedamus. (110–612) **[BOOK III]** [TEXT] Textus. ΑΡΧΗ ΤΟΥ ΤΡΙΤΟΥ ΠΤΟΛΕΜΑΪΟΥ. Περὶ σποράς χαὶ ἐχτροπῆς. Εφωδευμένης ἡμῖν ἐν τοῖς... Prooemium. Postquam accidentia generalia in his, quae ex nostra observatione praemissa sunt... [COMM.] Commentarius. Antequam ad Ptolemaei verba accedamus, primum quae sit auctoris intention, deinde huius libri subiectum, postea ordo doctrine — secundum decreta ipsius auctoris. Finis tertii libri. (613–830) **[BOOK IV]** Claudii Ptolemaei mathematici de iudiciis liber quartus cum expositione Iunctini Florentini doctoris theologi. Prooemium authoris. [TEXT] ΠΤΟΛΕΜΑΙΟΥ ΑΠΟΤΕΣΜΑΤΙΚΩΝ (!). Τὰ μὲν οὖν πρὸ τῆς γενέσεως... Rerum igitur, in quibus ea quae ante partum sunt... (614) [COMM.] Commentarius. Iste est quartus liber Apotelesmatum Ptolemaei in quo libro cum declaravit omnes siderum positiones — et subtiliter examinata fuerunt omnia ad mentem Peripateticorum. Iam ergo explicuimus dicta Ptolemaei, docuimusque quae ad dignoscenda futura quantum homini licuit pertinent. Reliquum est, ut Deo gratias omnium bonorum authori agamus.'

Bibl. I. Pantin, 'Francesco Giuntini et les nouveautés célestes', in *Celestial Novelties, Science and Politics on the Eve of the Scientific Revolution*, eds P. Boner, D. Tessicini, Florence, 2013, 85–104: 94.

Modern ed. ---

EDS Lyon, Philippus Tinghus, 1581, vol. I, sig. 109–830
Lyon, Philippus Tinghus, 1583, vol. I, sig. 109–830

MSS ---

C.2.35. Giulio Angeli da Barga, ⟨*Tabulata expositio in Quadripartitum*⟩

An account of the complete text of the *Quadripartitum* in tabular form put together by Giulio Angeli da Barga (Julius Angelius Bargaeus), professor of medicine at the University of Pisa from 1577 to 1593. This account was perhaps prepared in or around 1583, for in the unique manuscript [Plate 32], which is most probably Giulio Angeli da Barga's autograph, a sheet of paper inserted between the title page and the beginning of the text contains the horoscope of the New Moon of 9 June 1583 for latitude 44° (Pisa). The text does not seem to correspond to any of the known Latin translations and was probably written on the basis of the Greek text, as the title also suggests.

Text '(Pisa, BU, 232) Τῆς τοῦ πτολεμαίου τετραβίβλου συντάξεως ἔκθεσις πινακική. (298r–310v) **[BOOK I]** Primum ordine et potestate est id quo deprehendimus, quomodocumque factas motuum figurationes — Hoc modo si non se habent sunt omnino absque viribus. (311r–330r) **[BOOK II]** Cap. primum. Ex iisque fere per tabulas exponi solent quae maxime ad particularium praedictionum contemplationem praecipua sunt — instituemus tractationem eius praecognitiones quae ad genethliacam speciem pertinet. (331r–353r) **[BOOK III]** Proemium. Cum ea contemplatio quae ad universales casus pertinet in praecedentibus instituta nobis fuerit quippe quae praecedit — quaelibet est (?) supra expositis reddenda co... (?) con...vit (?). (354r–368r) **[BOOK IV]** Liber quartus. Cap. primum. Proemium. Quaecumque sunt propria constitutionis corporis et universalem — Mathematico recta coniectura coniungante et causam ex contemperatione. Finis. Θεῶ δόξα.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Pisa, BU, 232, s. XVI, f. 296v–370r

C.2.36. *Paraphrases in Quadripartitum Ptolomei*

A commented paraphrase of the *Quadripartitum*, opening with ch. I.4. The only known manuscript includes, as an example of nativity, the horoscope of Francesco Ingoli (1578–1649), cast when he was still 'adolescent' (f. 55v: 'Celeberimi adolescentis D. Francisci Ingoli Ravennensis' — he was born in Ravenna on 19 November 1578). This suggests that the work was written *c.* 1590, certainly in Italy and perhaps in Ravenna.

Text '(Vatican, BAV, Vat. lat. 11817) (2r–60v) **[BOOK I]** De astrologia liber primus, qui introductorius dicit. De naturis planetarum iuxta primas (?) qualitates. Cap. primum. De naturis planetarum ...s (?) secundum ordinem naturae, non dignitatis, sequi volo — huic primo libro imponamus. Finis primi libri astrologiae. Laus Deo. (62r–76r) **[BOOK II]** Paraphrases

in secundum librum Quadripartiti Ptolomei. Prohemium. In hoc libro Ptolomeus tria — que ad universalia pertinent iudicia. Reliquum (?) est ut ad geneses transitum faciamus. Finis secondi libri astrologiae. (77r–97r) **[BOOK III]** Paraphrases in tertium librum Quadripartiti Ptolomei Proemium et cap. primum. In hoc proemio Ptolomeus quatuor — his posterioribus significatoribus. Finis libri tertii astrologiae. (98r–113v) **[BOOK IV]** Paraphrases in quartum librum Quadripartiti Ptolomei. Cap. primum. De natis fortunis seu divitiis. Intriseca nati sunt — ut etiam superius declaratum est in secunda divisione. ... (?) ad laudem Dei impositus sit finis huic paraphrasi.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Vatican, BAV, Vat. lat. 11817, s. XVI, f. 3r–113v

C.2.37. ⟨*Commentum in Quadripartitum* (I)⟩

A commentary on *Quadripartitum* III–IV in Antonius Gogava's translation (A.2.10). The only extant manuscript, probably the original, dates from the end of the sixteenth or the beginning of the seventeenth century and comes from the monastery of San Bartolomeo in Rovigo (Veneto). A possible author would be Barnaba Riccobono, who was abbot of San Bartolomeo from 1590 to 1627 and who is known for his astronomical and astrological activities (see M. Shai, *Villa Grimani Molin Avezzù at Fratta Polesine. Cosmological Themes in Decorative Programs of Sixteenth-Century Venetian Villas*, PhD dissertation, Università di Venezia, 2013, 49 and 140). The commentary exhibits similarities in structure with Cardano's *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24), which the present author seems to have used (cf. 'Ex his colligit Cardanus', f. 42v line 14). As it stands in the manuscript, the commentary was left interrupted with blank pages on f. 51v–53v (missing *Textus XXXXI–LXIII* in Book III) and f. 57r–59v (missing *Textus LXXIIII* to the end of Book III).

Text '(Bologna, BU, 1218) (42r–59v) **[BOOK III]** Claudii Ptolemaei mathematici de iudiciis liber tertius, cap. primum, quod est proemium. Textus primus. Explicata a nobis in prioribus communium eventuum consideratione, nimirum quae et natura praecedit, et plurimum valet in peculiarium... Expositio. Audio rationes Ptolomei in hoc textu.... (60r–77v) **[BOOK IV]** Liber quartus. De iudiciis. Caput primum. Textus primus. Proemium. Dicit in hoc tex<tu> — (77v) fratris eius. Finis. (78r–79v) **[ADDITIONAL NOTES]** In caput de vitis (?) epatis adve... (?). Textus 44. Dicit Ptol<emaeus> quod — Soli luxuriosos efficit.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Bologna, BU, 1218 (1995), s. XVI–XVII, f. 42r–79v

C.2.38. Giovanni Antonio Magini, *De annui temporis mensura in directionibus et de directionibus ipsis ex Valentini Naibodae scriptis*

A commentary on two chapters of Valentin Nabod's *In Claudii Ptolemaei Quadripartitae constructionis apotelesmata commentarius novus et eiusdem conversio nova* (C.2.30) dealing with directions, published by Giovanni Antonio Magini (1555–1617) in Venice in 1607, as the final part of his *De astrologica ratione*. The two chapters, here numbered III.10–11 (= *Tetrabiblos* III.9–10 in Robbins's edition of the Greek text; III.10-11 in Hübner's edition). Magini gave selected sections of Nabod's text (= MS London, BL, Sloane 216, f. 147r–192r) and added to them a short commentary, which he calls *Appendix* (III.10) and *Additio* (III.11) respectively. The work title is taken from the front page of both early printed editions.

Text '(ed. Frankfurt/M. 1608) (158–164) **[III.10]** De annui temporis mensura in directionibus ex commentariis Valentini Naibodae, mathematici eruditissimi super caput decimum Apotelesmatici tertii Claudii Ptolemaei. [VALENTIN NABOD'S TEXT] His adiicio quaestionem, circa quam multos doctos haesitasse cognovi — si non in capite 10 quod est de temporum anni potestate. (162) [MAGINI'S COMM.] Appendix Io<hanni> Antonii Magini. Si ante mearum tabularum primi mobilis editionem Naibodae opinionem cognovissem — hanc curiositatem parvi egomet aestimo [followed by two tables]. (165–187) **[III.11]** [VALENTIN NABOD'S TEXT] De directionibus ex commentariis Valentini Naibodae in caput undecimum Apotelesmatici Ptolomaei. Textus Ptolemaei. Caeterum annorum numerus quem partes sustentativo et peremptorio loco interiectae concernunt... Valentini Naibodae commentarius. De his quae sequuntur conqueritur Cardanus tanquam a Ptolemaeo obscure prolatis et haud iniuria conqueritur... (185) [MAGINI'S COMM.] Additio Io<hanni> Antonii Magini. Valentini Naibodae modus deducendi significatores extra angulos constitutos ad suos promissores — memorato coeli culmine usurpatur. Haec vero a priore reiecta relinquit arcum huiusce directionis gr<adus> 27.9′.8″ sicut prius. Finis.'

Bibl. Thorndike 1923–1958, VI, 122 n. 63; P. Pizzamiglio, *L'astrologia in Italia all'epoca di Galileo Galilei (1550–1650). Rassegna storico-critica dei documenti librari custoditi nella Biblioteca 'Carlo Viganò'*, Milano, 2004, 143.

Modern ed. ---

EDS Venice, Damianus Zenarius, 1607, sig. 103r–120v
Frankfurt/M., Wolfgangus Richterus, 1608, sig. 158–187

MSS Ghent, UB, 345 (386), s. XVII, pp. 1–171

C.2.39. *Notabilia collecta ex Cardano in Quadripartitum Ptolemaei*

Reading notes, with comments and additional material, from Cardano's *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24). The author

used Cardano's edition of 1554, as evidenced by the numerous references by page number. The unique manuscript, without a doubt the author's copy, dates from the first half of the seventeenth century (the novae of 1572 and 1604 are mentioned f. 39r). The handwriting is difficult to read, the organisation of the material is rather chaotic (see MS entry) and the notes seem incomplete, leaving Book IV untouched. The current work title has been adapted from the various titles found on f. 1r, 16r and 50r.

Text '(Paris, BnF, lat. 7305A) Discerpta (?) ex Cardano in sententiis (?) in Ptolemaeum. Luna in tertia ... (?) et Saturnus in sexta in Libra... (16r) Collecta ex secundo libro Ptolemaei et ex Cardani libro... (50r) Notabilia collecta ex libro tertio Quadripartiti Tolomei. Nota primum quod Cardanus in praefatione in eum librum observat Ptolomeum non esse auctorem Centiloquii...'

Bibl. ---

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7305A, s. XVII, f. 1r–80v

C.2.40. Proclus (?), *Paraphrasis in quatuor Ptolemaei libros De siderum effectionibus*

Παράφρασις εἰς τὴν τοῦ Πτολεμαίου Τετράβιβλον ('Paraphrase of Ptolemy's *Tetrabiblos*') translated from the Greek by Leone Allacci (Leo Allatius, *c.* 1586–1669) and first published in 1635, together with the Greek text in two columns. The Greek text alone had already been published by Philipp Melanchthon in Basel in 1554. The attribution of this text to Proclus (412–485) is 'very doubtful' according to Heilen (84 n. 138), but the issue is as yet not settled.

Text '(ed. Leiden 1635) Procli Diadochi Paraphrasis in Ptolemaei libros IV De siderum effectionibus. (1–77) **[BOOK I]** Liber primus. Cap. I. Prooemium. Cum duo sint, Syre, quae ad futurorum praesagitionem, eam scilicet quam syderum scientia consequi possumus, animum praeparant — cum vero non ita se habeant omnino imbecilles sunt. (78–148) **[BOOK II]** Liber secundus. Cap. I. Generalis considerationis divisio. Quae visa sunt ad particularium praedictionum considerationem opportune — sive geniturarum iudicia, sicut ordo postulat, exquemur. (148–241) **[BOOK III]** Liber tertius. Cap. I. Prooemium. De universalibus itaque eventibus in superioribus egimus — diversiora, cautiora et famosiora. (241–294) **[BOOK IV]** Liber quartus. Cap. I. Prooemium. Quae ante partus exclusionem et quae in ipsa generatione — accommodari poterit, si apte cum mathematici causa, ipsius etiam temperamenti causa coniungatur. Finis.'

Bibl. On the Greek original text, see Delambre 1817, II, 544–46; Gundel/Gundel 1966, 215 and 245; D. Pingree, *The Yavanajātaka of Sphujidhvaja*, Cambridge (Mass.)-London,

1978, II, 438; S. Heilen, 'Ptolemy's Doctrine of the Terms and Its Reception', in Jones 2010, 45–93: 62–65.

Modern ed. No modern edition of either the Greek or the Latin text. English translation of the Greek text (from ed. Leiden 1635) by J. M. Ashmand, *Ptolemy's Tetrabiblos or Quadripartite, Being Four Books of the Influence of the Stars*, London, 1822.

EDS Leiden, Ex officina Elzeviriania, 1635, sig. 1–294
Leiden, Franciscus Moyardus, 1654, sig. 1–294

MSS ---

C.2.41. ⟨*Commentum in Quadripartitum* (II)⟩

An extensive commentary on the beginning of the *Quadripartitum* (I.1 and beginning of I.2) in Philipp Melanchthon's translation (A.2.11). The author and the origin of this commentary are unknown and the only extant manuscript dates from the seventeenth century.

Text '(Perugia, BCA, A. 23) Claudii Ptholomaei mathematici operis de iudiciis astrologicis libri quatuor. Liber primus. Praefatio. **[TEXT]** Duo sunt, Syre, per quae predictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est et potestate... **[COMM.]** Commentarius. Hoc est proëmium presenti operis, in quo, quae in — ad terram ceteros ... at (?) planetas.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Perugia, BCA, A. 23, s. XVII, f. 45r–68v

C.2.42. Placido Titi, *Claudii Ptolemaei Pelusiensis mathematici Opus de siderum iudiciis quadripartitum cum breviariis ad singula capita*

This is a reprint of the *Quadripartitum* in Antonius Gogava's translation (A.2.10), to which Placido Titi (Placidus de Titis, 1603–1668) added a summary at the beginning of each chapter, as described in the title ('cum breviariis ad singula capita D. Placidi de Titis'). This work was published by Placido Titi in Padua in 1658, together with the *Centiloquium* in Giovanni Pontano's translation, in a volume dedicated to the members of the Senate of Milan. The reprints of 1660 and 1665 mentioned by Thorndike (after P. Riccardi, *Biblioteca matematica italiana*, I.2, Modena, 1876, 522) do not seem to exist.

Text '(ed. Padua 1658) Cl. Ptolemaei Pelusiensis mathematici Opus de siderum iudiciis quadripartitum cum breviariis ad singula capita D. Placidi de Titis. (1–51) **[BOOK I]** Liber

primus. Cap. I. [PLACIDO TITI'S SUMMARY] Duo innuit cognoscenda in hac arte, familiaritates astrorum per motum acquisitas et eorum ad agendum naturas... [PTOLEMY'S TEXT] Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — Sed extra haec omnia reperti imbecilles et prorsus infirmi habentur. Finis libri primi. (52–94) **[BOOK II]** Cl. Ptolemaei Pelusiensis de iudiciis astrorum liber 2. Cap. I. [PLACIDO TITI'S SUMMARY] Ad effectuum naturalem praemeditationem descendit, quae duplex, universalis regionum et urbium, et peculiaris singularum hominum proponit hic de priori... [PTOLEMY'S TEXT] Hactenus quidem percurrimus ea, quorum maxime cognitionem praedictiones rerum singularium requisiturae viderentur — Quod superest, genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi. (95–160) **[BOOK III]** Cl. Ptolemaei Pelusiensis de iudiciis astrorum liber 3. Cap. I. [PLACIDO TITI'S SUMMARY] Expositis iam universalium effectuum causis, nunc descendit ad causas particularium, quam genethliacam partem vocat... [PTOLEMY'S TEXT] Explicata a nobis in prioribus communium eventum consideratione, nimirum quae et natura praecedit — agiliora milleque modis varia, et cautius instituta. Finis libri tertii. (161–178) **[BOOK IV]** Cl. Ptolemaei Pelusiensis de iudiciis astrorum liber 4. [PLACIDO TITI'S SUMMARY] Hactenus de iis quae genesis tempore foeto innascuntur, hoc ultimo libro proponit ea qua aliunde et deinceps adventant. [PTOLEMY'S TEXT] Quae igitur genituram praecedunt illive connexa sunt, amplius ea quoque quae eam comitantur — si mathematici causam erudite cum ea quae extemperatura nascitur, comparemus. Finis libri quarti.'

Bibl. Thorndike 1923–1958, VIII, 1958, 303.

Modern ed. ---

EDS Padua, Paulus Frambottus, 1658, sig. 1–178

MSS ---

C.3. Commentaries on the *Centiloquium*

C.3.1. Abū Jaʿfar Aḥmad ibn Yūsuf, *Commentary on the Kitāb al-Thamara* [Arabic]

A substantial commentary on the *Kitāb al-Thamara* ('Book of the Fruit'), i.e., the *Centiloquium*, written by the Cairo mathematician and astronomer Abū Jaʿfar Aḥmad ibn Yūsuf ibn Ibrāhīm ibn al-Dāya sometime after 912. The commentary deals with each aphorism in turn and includes the original text put under Ptolemy's name. According to Lemay (1978), the original text was also composed by Abū Jaʿfar, who ascribed it to Ptolemy (see B.1). Abū Jaʿfar Aḥmad ibn Yūsuf ibn Ibrāhīm ibn al-Dāya is known in Latin as 'Abuiafar Hamet filius Joseph filii Abrahe scriptor', 'Abugafarus' and especially 'Haly' among the readers of the *Centiloquium* (see also C.3.1.1, Note 1) and as 'Ametus filius Josephi' among the readers of his mathematical

works, i.e., the *Liber de proportione et proportionalitate* and the *De arcubus similibus*, both translated by Gerard of Cremona. With the sole exception of Adelard of Bath's translation (B.1.1), it is through Abū Ja'far's commentary that the *Centiloquium* was known in the European Middle Ages. There are five Latin translations of the text (C.3.1.1–5).

Bibl. Steinschneider 1893, II, 528–29; M. Ullmann, *Die Natur- und Geheimwissenschaften im Islam*, Leiden, 1972, 327–28; Lemay 1978; McCarthy 1979, 991–92; Sezgin 1974–1979, VII, 157; P. Kunitzsch, review of Sezgin 1974–1979, VII, *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 132 (1982), 174–79: 175–77; Lemay 1995–1996, I, 115–16; IV, 16–17; VII, 58; Lemay 1997, 150–59 and 164–71; R. Lemay, 'Des sages antiques aux astrologues médiévaux. Falsafa et astrologie', in *La science des cieux. Sages, mages, astrologues*, ed. R. Gyselen, Bures-sur-Yvette, 1999, 167–82: 172–80; Lemay 1999; Rinaldi 2002, 56–60; F. Martorello, G. Bezza, *Aḥmad ibn Yūsuf ibn al-Dāya: Commento al Centiloquio tolemaico*, Milano-Udine, 2013; O. Pompeo Faracovi, 'Una nuova edizione del *Centiloquio*', *BC* 20 (2014), 641–44. Calcagno 2021, 7–16; M. Rinaldi, *El libro delle cento parole di Ptholommeo. Volgarizzamento inedito del* Centiloquium *pseudo-tolemaico*, Roma, 2021, XIV–XVI.

Modern ed. Critical edition, together with an Italian translation, by Martorello/Bezza. There is also an unpublished critical edition by Lemay 1999.

C.3.1.1. Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. Plato of Tivoli

Translated by Plato of Tivoli in 1136 ('anno Arabum 530'). The translation is attributed to one 'Johannes Toletanus' or 'Johannes Yspanus' in two manuscripts (Erfurt, UFB, Dep. Erf. CA 4º 361: 'Incipit liber fructuum arboris Ptolomei a magistro Iohanne Tol<etano> translatus ab Arabico in Latinum'; and Salamanca, BU, 189: 'Explicit liber centum verborum Ptolomei translatus a magistro Iohanne Yspano') and to Plato of Tivoli in only one manuscript (Vatican, BAV, Vat. lat. 6766, in the title: 'Centiloquium Ptolomei cum expositione Aly translatum a Platone Tiburtino de Arabico in Latinum'). The attribution to Plato, however, seems very likely, for the colophon — especially the formula 'Perfecta est huius libri translatio' and the date given in both the Christian and the Islamic calendars — is characteristic of Plato's translations, as witnessed, *inter alia*, by his translation of Ptolemy's *Quadripartitum* in 1138 (see A.2.1). The date 1136 also falls nicely within Plato's translating activity. Eleven manuscripts (Augsburg, UB, Cod. II.1.4º 77; Barcelona, BC, 634; Cracow, BJ, 805; Cracow, BJ, 1864; Cracow, BJ, 2490; Dublin, TC, 441; Florence, BML, Ashburnham 203; Munich, BSB, Clm 228; Prague, NKCR, VIII.G.27 (except for v. 2–3); Vatican, BAV, Barb. lat. 328 (f. 137v–142r); Vatican, BAV, Reg. lat. 1285) preserve the propositions only and omit the commentary. Plato's translation is the source text of commentaries C.3.2–4, C.3.6, C.3.8–10, C.3.14–15, C.3.18 and C.3.20 (and probably others).

Note 1 Three manuscripts (Boulogne-sur-Mer, BM, 198; Venice, MCC, cod. Cic. 617; and Vienna, ÖNB, 5209) give the name of the commentator (Abū Jaʿfar Aḥmad ibn Yūsuf ibn Ibrāhīm ibn al-Dāya) quite correctly as 'Abuiafar Hamet filius Ioseph (filii) Abrahe scriptor', which became 'Abugafarus' in the 'Iam premisi' version (C.3.1.4). Many more manuscripts (at least 25) and the three early printed editions, however, name the commentator 'Haly' or 'Ali' (typically in the title 'Centiloquium Ptolomei cum commento Haly'), a name which is also found in at least 13 manuscripts of the 'Mundanorum' version (C.3.1.3) and which will become the most common name for the commentator in the Latin tradition, including in commentaries C.3.3, C.3.15 and C.3.20. A possible explanation, suggested by Lemay (1978, 103–04; 1999, I, 223), is that this name originated with Haly Embrani [ʿAlī b. Aḥmad al-ʿImrānī], who says, in his *De electionibus horarum* (a text translated in 1133 by Plato of Tivoli's close colleague, Abraham bar Ḥiyya alias Savasorda), that he had commented upon the 'verba Ptholomei'. In MS Florence, BR, 163, f. 2r, the commentator is named 'Haly Berodohan', but this is evidently an addition by the scribe, who wrongly identified Haly with Haly Abenrudian, the commentator of the *Quadripartitum* (see C.2.2).

Note 2 This version (like the 'Mundanorum' version, C.3.1.3) is often accompanied, at the beginning or at the end, by two additional chapters, which also occur independently under Ptolemy's name: *De cometis* (B.4) and *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5).

Note 3 About 20 manuscripts offer a 'threefold' version (called 'version agglomérée' by Lemay 1999, I, 283–325), which consists, for each *verbum*, of the propositions in three versions, i.e., Plato's (C.3.1.1), 'Mundanorum 1' (C.3.1.3) and Adelard of Bath's (B.1.1, for v. 1–39), while the preface and the commentary are given in Plato's translation. The manuscripts in question are Bergamo, BCAM, MA 571; Cambridge, UL, Ii 1.13; Cambridge, UL, Kk 4.7; Cambridge, UL, Mm 4.43; Erfurt, UFB, Dep. Erf. CA 2º 383; Erfurt, UFB, Dep. Erf. CA 2º 395; Erfurt, UFB, Dep. Erf. CA 4º 361; Erfurt, UFB, Dep. Erf. CA 4º 374; Limoges, BM, 9; London, BL, Harley 13; Milan, BA, H. 44 inf.; Oxford, BL, Digby 228 (for v. 1–15, the rest being in the 'Mundanorum' version only); Oxford, BL, Selden supra 78; Paris, BnF, n.a.l. 1893; Paris, BnF, n.a.l. 3091; Seville, BCC, 7-6-2; Vatican, BAV, Pal. lat. 1811; Vatican, BAV, Reg. lat. 1452; Vatican, BAV, Vat. lat. 6766 (v. 1–15 added in the margin, the rest being in the 'Mundanorum' version). MSS Cracow, BJ, 601, and New Haven, YU–BRBML, Mellon 25, as well as the three early printed editions, also give the threefold version, but only for v. 1. This 'threefold' version for v. 1 was used by Matthias de Krajna in his lectures on the *Centiloquium* (C.3.20).

Note 4 The manuscripts listed below are those where Plato's translation prevails, but it should be noted that most manuscripts of the 'Mundanorum' version preserve various, sometimes substantial, sections of Plato's translation (see C.3.1.3 and manuscript entries). Plato's translation also occurs in three additional manuscripts (not counted in the list below), i.e., in MS Dresden, SLSUB, N. 100, where v. 73 has been added to Petrus Gaszowiec's *Tabula de naturis particularibus signorum et facierum* (C.2.7); in MS Gloucester, CL, 15, where most of the propositions have been added to George of Trebizond's *Commentarii et expositiones in aphorismis Libri fructus Ptolomei* (C.3.11); and in MS London, BL, Arundel 88, where the proposition of v. 51 was copied together with Pseudo-Ptolemy's *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5).

Note 5 At least six manuscripts (Florence, BNC, Magliabech. XX.22; Salamanca, BU, 2051; Vatican, BAV, Reg. lat. 1452; Vatican, BAV, Vat. lat. 7616; Venice, BNM, Fondo antico lat. Z. 344; Vienna, ÖNB, 3105) contain substantial glosses opening 'Sensus huius littere' or 'Sensus huius capituli', which are reminiscent of Gerard of Cremona's commentaries. Just like in the case of the *Quadripartitum*, however, it is unclear whether Gerard wrote a continuous and stand-alone commentary on the *Centiloquium* (see C.2.1).

Note 6 Besides the manuscripts listed below, a copy of Plato's translation perhaps once existed in →MS Paris, BnF, lat. 7320 (see this MS, under Note).

Text '(Florence, BR, 163) (2r) **[TITLE]** Incipit Liber centiloquii compositus a prudentissimo Ptholomeo super iudicia astrorum ad Iesurem discipulum suum. **[PREFACE]** Dixit Ptholomeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc mundo et sunt libri multe utilitatis illis qui prescire volunt futura. Et hic est fructus illorum librorum omnium et qui probatus est multociens. Qui etiam non diligetur nisi ab eis qui in aliis libris laboraverunt et multas alias scientias cognoverunt. Accipe igitur cum bono omine. **[1]** Capitulum primum Centiloquii. Scientia stellarum ex te et illis est. Astrologus autem non debet dicere rem specialiter sed universaliter... [COMM.] Expositio Haly Berodohan. Quod dixit Ptholomeus, "ex te et illis", significat quod qui res futuras prenoscere desiderat... (2v) **[2]** Verbum 2. Dixit Ptholomeus: Quando eligit elector melius non erit inter ipsum et eum qui habet hoc ex natura differentia. [COMM.] Expositio. Multi homines putaverunt quod Ptolomeus loqueretur hic de electionibus... **[3]** Verbum 3. Dixit Ptholomeus: Ille qui facit aliquod opus ex natura inveniet in nativitate sua planetam fortem ex natura operis illius. [COMM.] Expositio. (3r) Docebit te Ptolomeus in libro isto, capitulo 86, quod tales sunt stelle et fortitudines ex eis manantes... **[4]** Verbum 4. Dixit Ptholomeus: Anima que ex natura dat iudicia iudicabit super secundas stellarum eritque eius iudicium melius quam illius qui iudicabit per ipsas stellas. [COMM.] Expositio. Iam docui te quomodo hoc habet anima ex natura... **[5]** Verbum 5. Dixit Ptholomeus: Astrologus optimus multum malum prohibere poterit quod secundum stellas venturum est... [COMM.] Expositio. Videmus quod idem opus non est equale suscipientibus... **[6]** Verbum 6. (3v) Dixit Ptholomeus: Tunc electiones proficiunt cum fortitudo temporis maior fuerit...

[COMM.] Expositio. Significatio nativitatis et fortitudo electionis est in significatione boni … **[7]** Verbum 7. Dixit Ptholomeus: Non poterit dare iudicia secundum stellarum complexionem nisi homo qui vim anime… [COMM.] Expositio. Complexio stellarum est hoc quod operantur earum nature in coniunctionibus et aspectibus… (4r) **[8]** Verbum 8. Dixit Ptholomeus: Anima sapiens ita adiuvat opus stellarum quenadmodum seminator fortitudines naturales. [COMM.] Expositio. Sapiens anima est illa que scit illud quod diximus et eius adiutorium est… **[9]** Verbum 9. Dixit Ptholomeus: Vultus huius seculi sunt subiecti vultibus celestibus… [COMM.] Expositio. In hoc capitulo vult Ptholomeus multa ymaginum secreta patefacere… (4v) **[10]** Verbum 10. Dixit Ptholomeus: Uti oportet infortuniis in electionibus sicut periti medici utuntur venenosis… [COMM.] Inperiti astrologi omitunt significatores in omnibus suis electionibus fortunas… (14r) **[51]** Verbum 51. Dixit Ptholomeus: Locus Luna (!) in nativitate est ipse gradus ascendens de circulo hora casus spermatis, et locus Lune hora casus spermatis est gradus ascendens hora nativitatis. [COMM.] Expositio. In hoc concordati sunt physici quod more natorum in uteris matrum sunt diverse… (16r) **[60]** Verbum 60. Dixit Ptholomeus: Alboharam sunt determinationes sane et certe et sunt hore quibus declarantur mutationes morborum ad bonum vel ad malum velociter super loca Lune… [COMM.] Expositio. Ptholomeus in hoc verbo docuit nos causam dierum determinabilium et qui sunt et quid etiam determinantur de bono seu de malo… (25r) **[99]** Verbum 99. Dixit Ptholomeus: Alnaeçic et habentes comas sunt de secundariis stellarum et non sunt de illis stellis. [COMM.] Expositio. Iam patefecimus in premissis quod secundaria siderum sunt res que contingunt a stellis in aere et alnaçic sunt ex his que fiunt in aere. Et vocant eas Arabes absuhub et alnaçic, et sunt iacula, eo quod assimilentur illis in velocitate motus, et certum est quod de secundariis et non de illis sint. **[100]** Verbum 100. Dixit Ptholomeus: Alnaeçic significant siccos vapores. Cum ergo fuerint in una parte, significabunt ventos accidentes in eadem parte — si vero fuerint immobiles, erit proditor ex aliqua civitatum eiusdem climatis. [COMM.] Expositio. Iam patefecit Aristotiles in libro De operibus altis quod vapores aridi, quociens perveniunt ad etherem — intravit igitur filius Alchalig post hoc brevi tempore et prefuit Egipto et eius partibus. **[FINIS]** Dixit Ptholomeus: Hoc est quod ego malui exponere in hoc libro et credo quod ydoneum sit suis rationibus et quod perfecta sit eius expositio. Dico tibi etiam hoc dignum esse ut commictas eum illi qui deceat (!) et removeas eum ab illo cuius intentio est solummodo ut eum habeat et qui putat eum scire cordetenus si in theca sua positus fuerit. Difficile est enim illi laborare ut addiscat eum. Quapropter removendus est ab hoc libro et ab huic simili. Maximus namque error foret si traderetur illi. Et ego Deum precor ut te diligat. Perfecta est huius libri translatio 17 die mensis Martii, 12 die mensis Iumedi secundi, anno Arabum 530. Explicit Liber Ptholomei qui dictus est centum verba.'

Bibl. Wüstenfeld 1877, 27–28 (no. 68a); Steinschneider 1893, II, 529; Steinschneider 1904, 41 (no. 36); Haskins 1927, 68–69; Carmody 1956, 16 (no. 3b); Lemay 1978, 101–04; McCarthy 1979; J. C. Wilcox, 'Transmission of Two Particular Concepts of Medieval Medicine in the Translation of an Arabic Astrological Work', in *Actas del V Congreso Internacional de Filosofía Medieval*, II, Madrid, 1979, 1531–38; Lemay 1995–1996, I, 240; Lemay 1997, 150–59 and 164–71; Dell'Anna 1999, I, 83–90 (on *verbum* 60); Lemay 1999, I, 231–83 (and 283–325 for the 'threefold' version); Rinaldi 2002, 63–65; Boudet 2014, 51–52; Boudet 2014a, 386–87; D. N. Hasse, 'Stylistic Evidence for Identifying John of Seville with the Translator of Some Twelfth-Century Astrological and Astronomical Texts from Arabic into Latin on the Iberian

Peninsula', in *Ex Oriente Lux. Translating Words, Scripts and Styles in Medieval Mediterranean Society*, eds C. Burnett, P. Mantas-España, Córdoba-London, 2016, 19–43: 28–30; Boudet 2017, 608; Boudet 2019, 167–69; Boudet 2020, 284 and *passim*; Calcagno 2021, 17–18.

Modern ed. Lemay 1999 (unpublished). Samples have been edited by Dell'Anna 1999, II, 7–9 (v. 60, together with commentary C.3.3, from MS Cambridge, PC, 204); and, from a selection of manuscripts, Lemay 1997, 167–68 (v. 1); by Boudet 2019, 168 (v. 51), and Boudet 2020, 287–88 (v. 8) and 294–95 (v. 51). A critical edition is in preparation by Emanuele Rovati.

EDS Venice, Erhardus Ratdolt, 1484, sig. $f_6$vb–[i_4]ra
Venice, Bonetus Locatellus, 1493, f. 107r–116v
Venice, Octavianus Scotus, 1519, f. 97ra–106rb

MSS Augsburg, UB, Cod. II.1.4º 77, s. XV, f. 2r–3v (v. 46–100, without comm.)
Barcelona, BC, 634, s. XV, f. 79v–83v (without comm.)
Basel, UB, F.III.25, s. XIII, f. 45ra–51rb (v. 6–100)
Bergamo, BCAM, MA 571, s. XIV, pp. 1a–24b
Berlin, SBPK, lat. fol. 192 (963), s. XV, f. 111rb–119rb
Berlin, SBPK, lat. fol. 646 (Boncompagni 306), s. XV, f. 3r–19r (v. 50–100)
Berlin, SBPK, lat. qu. 510, s. XIII, f. 191r (v. 1, incomplete)
Bernkastel-Kues, CSB, 208, s. XIV, f. 58vb–68ra
Boulogne-sur-Mer, BM, 198, s. XIII, f. 52v–70r
Bruges, OB, 523, s. XIII, f. 66r–78v
Cambridge, UL, Ii 1.13 (1705), s. XIV, f. 109v–120v
Cambridge, UL, Ii 3.3 (1767), s. XIII–XIV, f. 220ra–239va
Cambridge, UL, Kk 4.7 (2022), s. XIV, f. 124ra–131va
Cambridge, UL, Mm 4.43 (2391), s. XIV, f. 225ra–249^5va
Cambridge, UL, Peterhouse 52, s. XIII–XIV, f. 115va–118vb
Cesena, BCM, Plut. S.XXVII.1, s. XV, f. 210r–222r
Cracow, BJ, 578, s. XV, pp. 375b–418a
Cracow, BJ, 601, s. XV, f. 32r–44r
Cracow, BJ, 805, s. XV, f. 393va–396va (without comm.)
Cracow, BJ, 1859, s. XV, f. 185v–205v
Cracow, BJ, 1864, s. XV, f. 109r–109v (selection, without comm.)
Cracow, BJ, 2490, s. XVI, f. 1r–10v (v. 1–38, without comm.)
Darmstadt, HLHB, 739, s. XIV, f. 166ra–181va
Dublin, TC, 397, s. XV, f. 11r–39v
Dublin, TC, 441, s. XV, f. 60r–63v (v. 1–54, without comm.)
Erfurt, UFB, Dep. Erf. CA 2º 380, s. XIV, f. 131r–140v
Erfurt, UFB, Dep. Erf. CA 2º 383, s. XIV, f. 117ra–126vb
Erfurt, UFB, Dep. Erf. CA 2º 383, s. XIV, f. 141ra–154rb
Erfurt, UFB, Dep. Erf. CA 2º 395, s. XIV, f. 106ra–121ra
Erfurt, UFB, Dep. Erf. CA 4º 361, s. XIV, f. 41ra–47rb
Erfurt, UFB, Dep. Erf. CA 4º 374, s. XIV, f. 112v–114r
Escorial, RBMSL, e.III.15, s. XIII–XIV, f. 13ra–22vb

Florence, BML, Ashburnham 203 (129/35), s. XVI, f. 25r–31v and 59r–66v (without comm.)
Florence, BNC, Conv. Soppr. J.X.20 (San Marco 163), s. XIV–XV, f. 1r–17v
Florence, BNC, Magliabech. XX.22, s. XIV, f. 1ra–18vb
Florence, BR, 163, s. XIII, f. 2r–25v
Florence, BR, 885, s. XIII–XIV, f. 351r–368v
Frankfurt/M., SUB, Fragm. lat. VIII.32, s. XIV, f. 1va–1vb (v. 1–4)
Frankfurt/M/, SUB, Praed. 48, s. XV, f. 115rb–125va (without v. 1)
Ghent, UB, 5 (416), s. XV, f. 27r–41v
Göttingen, NSUB, Philos. 62c, s. XV, f. 221r–222v (selection)
Leiden, UB, Voss. lat. O.3, s. XV, f. 143r–169v (truncated)
Leipzig, UB, 1463, s. XV, f. 88v–103va
Leipzig, UB, 1472, s. XV, f. 1r–53v
Limoges, BM, 9 (28), s. XV, f. 272r–289r
London, BL, Arundel 268, s. XIV, f. 23va–40ra
London, BL, Harley 13, s. XIII–XIV, f. 141ra–164vb
London, UC, 16, s. XV, f. 3ra–17ra
London, BL, Harley 3151, s. XIV-XV, f. 38r–39r
Madrid, BN, 10015, s. XIII, f. 20ra–25va
† Metz, BM, 286, s. XIV, item no. 1
Milan, BA, H. 44 inf., s. XIV, f. 124rb–143ra
Milan, BA, M. 28 sup., s. XIV, f. 79r (v. 60, comm. only)
Munich, BSB, Clm 228, s. XIV, f. 262va–265ra (v. 4–100, without comm.)
Munich, BSB, Clm 14111, s. XIV–XV, f. 198vb–211va
Munich, BSB, Clm 27001, s. XV, f. 1v (v. 51)
Munich, BSB, Clm 29248(1, s. XV, f. 3r–10v (last lines missing)
New Haven, YU-BRBML, Mellon 25, s. XV–XVI, f. 77ra–99ra
Oxford, BL, Auct. F.3.13 (2177), s. XIII, f. 49r–66v
Oxford, BL, Bodley 463, s. XIII, f. 59ra–74vb
Oxford, BL, Bodley 472, s. XV, f. 1ra–20ra
Oxford, BL, Canon. Misc. 554, s. XV, f. 196r–225r
Oxford, BL, Digby 75, s. XV, f. 73r–91v
Oxford, BL, Selden supra 78, s. XIV, f. 1r–25r
Oxford, CCC, 101, s. XV, f. 173r–191ra
Paris, BnF, lat. 7198, s. XIV–XV, 111ra–122ra
Paris, BnF, lat. 7306, s. XV, f. 1r–14v
Paris, BnF, lat. 7307, s. XIII, f. 1r–17v
Paris, BnF, lat. 7316, s. XV, f. 157r–167r
Paris, BnF, lat. 7348, s. XIV, f. 21ra–21vb (selection)
Paris, BnF, lat. 7350, s. XVI, f. 71v–73v (selection, mostly without comm.)
Paris, BnF, lat. 7437, s. XIV, f. 79v–87v (selection)
Paris, BnF, n.a.l. 1893, s. XIV, f. 109va–138ra
Paris, BnF, n.a.l. 3091, s. XIII, f. 92va–104ra
Pommersfelden, GSB, 66 (2640), s. XIII, f. 84ra (v. 51)

Prague, NKCR, VIII.G.27 (1609), s. XV, f. 60r–72v (without comm. except in v. 2–3)
Rome, BV, F 86, s. XIII, f. 1v–23v
Salamanca, BU, 189, s. XIV, f. 21ra–28va
Salamanca, BU, 2051, s. XIII, f. 26va–33vb
Seville, BCC, 7-6-2, s. XIII, f. 63v–120v (v. 1–87)
Seville, BCC, 7-7-30, s. XV, f. 118v–144v
Uppsala, UB, C 653, s. XIV, f. 157r–172v
Vatican, BAV, Barb. lat. 328, s. XV, f. 137v–142r (without comm.)
Vatican, BAV, Barb. lat. 328, s. XV, f. 171r–194v
Vatican, BAV, Borgh. 312, s. XIII–XIV, f. 18ra–24vb
Vatican, BAV, Pal. lat. 1369, s. XV, f. 89va–100ra (without v. 1)
Vatican, BAV, Pal. lat. 1408, s. XIV, f. 39r–39v (v. 99–100)
Vatican, BAV, Pal. lat. 1811, s. XIV, f. 47ra–64vb
Vatican, BAV, Reg. lat. 1285, s. XIII, f. 42ra–42vb (selection, without comm.)
Vatican, BAV, Reg. lat. 1452, s. XIV, f. 33ra–45vb
Vatican, BAV, Reg. lat. 1452, s. XIV, f. (115va–120vb) (selection)
Vatican, BAV, Reg. lat. 1692, s. XIII–XIV, f. 272rb–289vb
Vatican, BAV, Vat. lat. 6766, s. XIII, f. 60ra–66va
Vatican, BAV, Vat. lat. 7616, s. XIII, f. 45va–61rb
Venice, BNM, Fondo antico lat. Z. 344 (1878), s. XIII, f. 155ra–173va
Venice, BNM, lat. VIII.16 (3382), s. XV, f. 104va–116ra
Venice, MCC, cod. Cic. 617 (1261), s. XIV, f. 1r–37r
Verona, BC, CCXLIV (215), s. XIII, f. 16rb–27vb
Vicenza, BCB, 208 (132), s. XV, f. 213r–256r
Vienna, ÖNB, 3105, s. XV, f. 37ra–51rb
Vienna, ÖNB, 5209, s. XVI, f. 5r–72v
Vienna, ÖNB, 5239, s. XIV, f. 128ra–145rb
Warsaw, BN, Rps 12634 II, s. XV, f. 2r–20v
Wolfenbüttel, HAB, 444 Helmst. (479), s. XV, f. 190ra–200rb

C.3.1.2. Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. Hugo Sanctelliensis

Translated by Hugo Sanctelliensis and dedicated to Bishop Michael of Tarazona (1119–1151). The translation is not dated, but a 'magister Hugo' appears as a witness in charters issued by Michael of Tarazona in 1145 and 1147 (Santoyo, 342).

Text '(Madrid, BN, 10009) **[TRANSLATOR'S PREFACE]** De hiis que ad iudiciorum veritatem attiinent (!) cum in illis totus astronomie consistat effectus secundum Arabice secte verissimam inquisitionem — qui pocius gaudeat librorum numero quam eorum delectetur artificio. (85rb) **[1]** Astrorum scientia de te et de illis. Hoc in sermone 'de te et de illis' videtur velle Ptholomeus duplicem esse astrorum scientiam et gemino calle terminari... [COMM.] Deinceps quoque ad significationem stellarum signorum et ad eos qui eiusdem sunt ca(85va)paces... (86rb) **[2]** Quociens optima requiritur electio, ipsius

ad naturalem nulla est differencia. [COMM.] Estimant quidam posteriorum Ptholomeum hoc in loco eam electionem velle dicere quam... (86va) **[3]** Naturalis in re qualibet vis satis congrue appellatur in cuius nativitate eius rei dux atque minister potens invenitur et fortis. [COMM.] Reffert nobis Ptholomeus in sermone 86 stellas omnem administrare creaturam et voluntatis... **[4]** Anima naturalis per stellarum secundas, id est adiuncta diiudicans certiorem numpciat effectum quam plerique qui de ipsis stellis diiudicant. (86vb) [COMM.] Quomodo anima sit naturalis supra dictum fore existimo. Sunt igitur secunde astrorum earum renovationes... **[5]** Potest astrologus multos astrorum pervertere actiones si naturaliter de horum signis vel effectu peritus extiterit... [COMM.] Quamvis una eademque sit actio per diversitatem subiectorum recipientium eam, necesse est variari... (87ra) **[6]** Prodest semper electio quociens hore potencia utriusque rectoris differenciam excedit... [COMM.] Na[m]scentis ducatus et hore potencia quando in bono conveniunt nati profectus exagerant... (87rb) **[7]** Non pervenit ad iudicium secundum astrorum comixtiones nisi morum consuetudines et comixtiones naturales prudenter congnoscit (!). [COMM.] Stellarum commixtionem id intelligere voluit quod ad earum naturam spectat attinet... (87va) **[8]** Anima sapiens et discreta circularem actionem iuvat, quemadmodum agricola arando et purgando nature subvenit. [COMM.] Per hoc quod dicit: anima scilicet sapiens, eam vult intelligere que circuli vires comprehendit arte... **[9]** Forme huius mundi formis circularibus obediunt easque secuntur. Unde qui prestigiorum scientia... (87vb) [COMM.] Huius sermonis intelligenciam ex multiplici prestigiorum archano et ex eorum qui se hoc scire profitentur institutis... (88ra) **[10]** Infortunia sub omni electione notanda sunt aque observanda, sicut medicorum prudentissimi toxica et venenifera quantum res expostulat exsecuntur. [COMM.] Quorumdam astrologorum inprudencia cuiuslibet electionis ducem felicem statuunt atque fortunatum ipsumque corroborant... (96ra) **[51]** Locus Lune in nativitate est ipsius orientis in circulo gradus sub conceptione, et quem sub conceptione possidet est ipsius natalis orientis gradus. [COMM.] Astrologorum omnium et qui nature secreta rimantur generalis est sentencia varios esse status fetuum in materno utero... (97va) **[60]** Certissimi egrotantium dies cretici sunt hore in quibus apparet languentis mutatio ad bonum sive ad malum infra breve tempus, hoc est situs Lune in angulis... (97vb) [COMM.] Hoc in sermone ostendit nobis Ptholomeus creticorum dierum causam et que sit inter ipsos distancia... (105ra) **[99]** Navicula et comete non de stellis sed de secundis sunt astrorum. [COMM.] In supradictis dictum existimo secundas astrorum eorumdem esse in ethere renovationes... **[100]** Iacula vaporum indicant siccitatem, ex eadem vero parte ventos ibidem nunciant futuros... (105va) [COMM.] Aristotiles in libro quem de superioribus composuit signis manifeste affirmat siccos vapores qui ad ethera perveniunt in iacula que superius — et finitimas in manu forti atque violenta agregavit regiones. Manifesto tandem experimento cognovit Egiptus quecumque hoc in loco recensuit Ptholomeus. **[FINIS]** Hec sunt que de eiusmodi verborum explanatione ydonea cognoscens a preceptorum via nullatenus arbitror dissentire. Quare et his qui se tanti muneris dignos exhibent diligenter conferenda, et ab his quibus pocior est librorum numerus quam sensus avida manu subtrahenda.'

Bibl. Haskins 1927, 69–72; Carmody 1956, 16 (no. 3a); Lemay 1978, 104–05; McCarthy 1979; Lemay 1997, 150–59 and 164–71; Lemay 1999, I, 214–25; Rinaldi 2002, 66; C. Burnett, 'A Hermetic Programme of Astrology and Divination in mid-Twelfth-Century Aragon: The Hidden Preface in the *Liber novem iudicum*', in *Magic and the Classical Tradition*, eds

C. Burnett, W. F. Ryan, London-Torino, 2006, 99–118: 115; Boudet 2014, 52; Boudet 2014a, 387; Boudet 2017, 608; Boudet 2019, 171–72; Boudet 2020, 285 and *passim*; Calcagno 2021, 18. On the identity of Hugo Sanctelliensis, see J.-C. Santoyo, 'El Normano Hugo de Cintheaux (*Hugo Sanctelliensis*), traductor en Tarazona (CA. 1145)', in *Antes se agotan la mano y la pluma que su historia. Magis deficit manus et calamus quam eius hystoria. Homenaje a Carlos Alvar*, eds C. Carta, S. Finci, D. Mancheva, San Millán de la Cogolla, 2016, I, 341–57.

Modern ed. Lemay 1999 (unpublished). Edition of the preface by Haskins 1927, 69–70. Samples have been edited from the two known manuscripts by Lemay 1997, 169–71 (v. 1); Boudet 2019, 171 (v. 51), and Boudet 2020, 288–89 (v. 8) and 296–97 (v. 51).

EDS ---

MSS Madrid, BN, 10009, s. XIII, f. 85ra–105vb
Naples, BN, VIII D 4, s. XV, f. 3r–30v

C.3.1.3. Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, 'Mundanorum' version

This version is anonymous in all manuscripts, except in MS Avignon, BM, 1022, where it is entitled 'Centiloquium Ptholomey cum expositione Heremani'. Lemay attributed the translation to Hermann of Carinthia on account of its style and because several manuscripts have an interpolation in v. 69 corresponding to a passage of Albumasar's *Introductorium maius* in Hermann's translation. At the same time, Hasse noted unmistakable stylistic features of John of Seville. What is certain is that the manuscript tradition of 'Mundanorum', particularly intricate, exhibits various arrangements of the material reflecting various stages of reworking, which may or may not be due to the same translator or author. A salient feature of this version is that it consists of two versions, of which the first ('Mundanorum 1') gives the propositions only and in a new translation from the Arabic, while the second ('Mundanorum 2') offers the preface and v. 1–9 (propositions and commentary) in Plato of Tivoli's translation (C.3.1.1), followed by v. 10–100 (propositions and commentary) in a new translation from the Arabic, distinct from Plato's and from 'Mundanorum 1'. Two manuscripts have 'Mundanorum 1' only (London, BL, Sloane 2030 (f. 114r–118r), and Parma, BP, 718–720), nine manuscripts have 'Mundanorum 2' only (Berlin, SBPK, Hamilton 557; Erfurt, UFB, Dep. Erf. CA 2º 377; Erfurt, UFB, Dep. Erf. CA 4º 377; Florence, BML, Ashburnham 1733; London, BL, Royal 12.E.XV; Munich, BSB, Clm 275; Munich, BSB, Clm 276; Oxford, BL, Digby 228; and Vatican, BAV, Vat. lat. 3096) and most of the other copies conflate the two versions, giving, for each *verbum*, 'Mundanorum 1' followed by 'Mundanorum 2', so that each *verbum* contains two propositions in those manuscripts. Besides the two manuscripts which have 'Mundanorum 1' only, five copies (Leipzig, UB, 1463; London, BL, Royal 12.E.XV; Paris, BnF, lat. 16204

(pp. 543a–548a); Paris, BnF, n.a.l. 693; and Vatican, BAV, Pal. lat. 1368) preserve the propositions only and omit the commentary. The 'Mundanorum' version was used in commentaries C.3.2, C.3.4 and C.3.6.

Note 1 This version (like Plato's translation) is often accompanied, at the beginning or at the end, by two additional chapters, which also occur independently under Ptolemy's name: *De cometis* (B.4) and *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5).

Note 2 In addition to the manuscripts listed below, the propositions 'Mundanorum 1' are found in about 20 copies as part of the so-called 'threefold version' described under Plato's translation (see C.3.1.1, Note 3), as well as in the margins of MS Cracow, BJ, 1857 (C.3.9). Various sections of the 'Mundanorum' version also occur in at least ten manuscripts of Plato's translation (Cesena, BCM, Plut. S.XXVII.1; Florence, BNC, Conv. Soppr. J.X.20; Leipzig, UB, 1472; Munich, BSB, Clm 14111; Oxford, CCC, 101; Paris, BnF, lat. 7432 (Conrad Heingarter's commentary, C.3.15); Prague, NKCR, VIII.G.27; Vatican, BAV, Barb. lat. 328; Warsaw, BN, Rps 12634 II; Wolfenbüttel, HAB, 444 Helmst.).

Text '(Vienna, ÖNB, 2388) Centiloquium Ptolomei. Mundanorum **[1]** 1. Mundanorum ad hoc et ad illud mutatio corporum celestium mutatione. Causas rerum rimaturus primo celestia contemplare, scientia namque astrorum ex te et illis est. Et oportet peritum illorum iudicare secundum formam effectuum particularium... Scientia stellarum ex te et illis est: Astrologus non debet dicere res specialiter sed universaliter ut qui eminus videt rem aliquam... [COMM.] Quod dixit Ptholomeus, "ex te et illis", significat quod qui res futuras prenoscere desiderat duabus viis oportet incedere... **[2]** 2. Quando perscrutatur elector melius inter illum et naturam nulla est differentia. Dixit Ptholomeus: Quando perscrutatur etc. [COMM.] Multi homines putaverunt quod Ptholomeus loqueretur hic de electionibus quas eligebant astrologi in inceptionibus operum... (8v) **[3]** Naturatus in aliquo ille est significator cuius rei fortis invenitur in eius nativitate. Dixit Ptholomeus: Naturatus in aliquo etc. Ille qui facit aliquod opus ex natura inveniet in nativitate eius planetam fortem ex natura illius operis. [COMM.] Docet hic Ptholomeus et in huius libri, capitulo, 8VI (!), quod stelle tales sunt et fortitudines ex eis manentes et opera earum animabus... **[4]** 4. Anima naturata iudicat super secundis a stellis et erit eius certificatio plus quam multorum secundum ipsa astra iudicantium. Dixit Ptholomeus: Anima naturata etc. Anima que ex natura dat iudicia... [COMM.] Iam docuit quomodo hoc habet anima ex natura... **[5]** 5. Potest astrologus plurimum avertere de operatione stellarum cum fuerit sciens nature operis agentis in eo, et preparaverit ante suam descensionem recepturum sustinere valentem. Dixit Ptholomeus: Potest astrologus etc. Astrologus optimus multum mali prohibere poterit... [COMM.] Hoc videmus quod idem opus non est equale suscipientibus et receptorem ad maius vel ad minus suscipiendum vertere possumus... **[6]** 6. Electio profectus, sicut quando fuerit fortitudo hore augens super excellentiam... Dixit Ptholomeus: Electio profectus etc. Tunc electiones proficiunt cum fortitudo electionis maior fuerit... [COMM.] Assignatio nativitatis et fortitudo electionis cum in significatione boni convenerint illud bonum accrescet electione... (9r) **[7]** 7. Non potest pervenire ad

iudicium super commixtionem planetarum nisi sapiens humorum et complexionis naturalis. Dixit Ptholomeus: Non potest pervenire etc. Non potest dare iudicia secundum stellarum complexionem... [COMM.] Complexio stellarum est hoc quod operantur earum nature in coniunctionibus et aspectibus... **[8]** 8. Anima sapiens potest adiuvare celestem operationem quemadmodum seminans virtutem per cultum et purgationem. Dixit Ptholomeus: Anima sapiens etc. Anima sapiens ita adiuvat opus stellarum quemadmodum seminator fortitudines naturales. [COMM.] Sapiens est illa anima que scit illud quod prediximus... **[9]** 9. Imagines que sunt in hoc compositionis mundo celestibus obediunt imaginibus. Quocirca describunt eas imaginarii cum planete ingrediuntur ipsas ad omne quod operari volunt. Dixit Ptholomeus: Imagines que sunt etc. Vultus huius seculi sunt subiecti vultibus celestibus... [COMM.] In hoc capitulo vult multa imaginum secreta patefacere et vultus quos in hoc seculo esse dicuntur... (9v) **[10]** 10. Interponere malignos in electionibus quemadmodum phisicus subtilis venena modo sufficienti. Dixit Ptholomeus: Interponere malignos etc. Pone malignos planetas in electionibus ut facit bonus phisicus... [COMM.] Insipientes astrologi nonnisi fortunas inspiciunt easque in optimis locis ponunt, malignos autem pretermittunt nec de eis curant... (15r) **[51]** 51. Locus Lune in nativitate ipse gradus est ascendens in hora casus spermatis. Et locus Lune in hora casus spermatis est gradus ascendens in hora nativitatis. Dixit Ptholomeus: Locus Lune etc. Gradus in quo est Luna in nativitate alicuius est gradus ascendens in hora qua infusum est semen in matrice a patre... [COMM.] Omnes homines naturali periti scientia sciunt quod tempora quibus in matrum ventribus morantur infantes non sunt equalia omnibus... (16v) **[60]** 60. Crises veri signorum ... (?) significative ipse sunt hore in quibus aparet mutatio esse infirmi ad bonum sive ad malum in tempore u...o (?) et ipse sunt essentia... Dixit Ptholomeus: Crises veri signorum etc. Infirmorum rectos terminos dico esse horas in quibus ad bonum vel ad malum cito movetur infirmitas... [COMM.] Vult in hoc loco nobis dies creticos Ptholomeus ostendere et quid de infirmis futurum sit ex bono seu malo. Est et hoc capitulum magis necessarium phisico quam astrologo... (22r) **[99]** 98 (!). Scintillationes stellarum et stelle cum caudis sunt secunde stellarum et non sunt ex eis. Dixit Ptholomeus: Scintillationes etc. [COMM.] Iam diximus hoc alias. **[100]** Sed tamen Ptolomeus ait quod iste scintillationes significant basum, et si fiant ex una parte ventos, significabunt ex ea parte venturos — Si autem de oriente ad occidentem, erit hostis de regno ipso. [COMM.] Aristoteles docuit nos in libro quem composuit de hiis que superius accidunt quod basi sicci quando ascendunt usque ad circulum igneum faciunt istas scintillationes — Et stella cum caudis Domina Capillorum apparuit et mortuus est rex in eodem anno. Quicquid enim diximus in hoc libro Ptholomei iam probavimus et quanto melius quivimus exposuimus. Explicit B.'

Bibl. Carmody 1956, 16 (no. 3c); Lemay 1978, 104; McCarthy 1979; J. C. Wilcox, 'Transmission of Two Particular Concepts of Medieval Medicine in the Translation of an Arabic Astrological Work', in *Actas del V Congreso Internacional de Filosofía Medieval*, II, Madrid, 1979, 1531–38; Lemay 1995–1996, VII, 58–61; Lemay 1997, 150–59 and 164–71; Lemay 1999, I, 325–88; Rinaldi 2002, 65–66; Boudet 2014, 52; Boudet 2014a, 387; D. N. Hasse, 'Stylistic Evidence for Identifying John of Seville with the Translator of Some Twelfth-Century Astrological and Astronomical Texts from Arabic into Latin on the Iberian Peninsula', in *Ex Oriente Lux. Translating Words, Scripts and Styles in Medieval Mediterranean Society*, eds C. Burnett, P. Mantas-España, Córdoba-London, 2016, 19–43: 28–30; Boudet 2017, 608; Boudet 2019, 169–70; Boudet 2020, 285 and *passim*; Calcagno 2021, 18–19.

Modern ed. Lemay 1999 (unpublished). Samples have been edited by Lemay 1997, 159 (v. 99–100) and 168–69 (v. 1), and from two witnesses by Boudet 2019, 169–70 (v. 51), and Boudet 2020, 288 (v. 8) and 295–96 (v. 51).

EDS ---

MSS Avignon, BM, 1022 (341), s. XV, f. 209ra–224vb
Berlin, SBPK, Hamilton 557, s. XIII–XIV, f. 1r–14r
Berlin, SBPK, lat. fol. 54 (964), s. XV, f. 194va–207vb
Berlin, SBPK, lat. fol. 246, s. XV, f. 24ra–31vd
Brussels, BR, 18678–18681, s. XIV, f. 2ra–10ra
Cracow, BJ, 551, s. XIV, f. 120va–121rb (selection)
Dijon, BM, 1045 (116), s. XV, f. 119v–147v
Dublin, TC, 441, s. XIV, f. 212v–227r
Erfurt, UFB, Dep. Erf. CA 2º 377, s. XIV, f. 54vb–62va
Erfurt, UFB, Dep. Erf. CA 2º 379, s. XIV, f. 93ra–99rb
Erfurt, UFB, Dep. Erf. CA 4º 363, s. XIII, f. 89va–94ra (v. 1–78)
Erfurt, UFB, Dep. Erf. CA 4º 376, s. XIV, f. 94va–105va
Erfurt, UFB, Dep. Erf. CA 4º 377, s. XIV, f. 39r–50v
Florence, BML, Ashburnham 1733, s. XIII, f. 56ra–73rb
Ghent, UB, 5 (416), s. XV, f. 4r–21r
Leipzig, UB, 1463, s. XV, f. 103vb–105ra (v. 1–25, without comm.)
Leipzig, UB, 1471, s. XV, f. 21va–34vb
Leipzig, UB, 1484, s. XV, f. 276va–278ra (selection)
Leipzig, UB, 1491, s. XV, f. 124ra–141vb, 99r–99r and 100r
London, BL, Royal 12.E.XV, s. XIII–XIV, f. 117r–135r (without comm.)
London, BL, Royal 12.F.VII, s. XIV, f. 242va–251vb (v. 1–43)
London, BL, Sloane 332, s. XV, f. 19r (excerpts)
London, BL, Sloane 2030, s. XIII, f. 11r–30r
London, BL, Sloane 2030, s. XIII, f. 114r–118r (without comm.)
Melk, SB, 601, s. XV, f. 282v–293r
Milan, BA, C. 299 inf., s. XV, f. 182ra–183ra (selection)
Munich, BSB, Clm 228, s. XIV, f. 83r–93v
Munich, BSB, Clm 275, s. XV, f. 2r–12v
Munich, BSB, Clm 276, s. XIV, f. 83ra–86vb
Munich, BSB, Clm 6748, s. XV, f. 13r–34r
Nürnberg, SB, Cent. VI, 22, s. XIV, f. 156ra–172rb
Nürnberg, SB, Solg. Ms. 31.4º, s. XV, f. 11r–38v (end missing)
Oxford, BL, Bodley 597, s. XV, f. 103r–111v
Oxford, BL, Digby 228, s. XIV, f. 8ra–12va
Paris, BnF, lat. 7282, s. XV, f. 5ra–13vb
Paris, BnF, lat. 7408A, s. XIV, f. 87r–98r
Paris, BnF, lat. 16204, s. XIII, pp. 543a–548a (without comm.)
Paris, BnF, lat. 16204, s. XIII, pp. 553a–584b
Paris, BnF, n.a.l. 625, s. XIV, f. 34ra–46va

Paris, BnF, n.a.l. 693, s. XIV, f. 15r–15v (selection, without comm.)
Parma, BP, 718–720, s. XIII, f. 271r–274r (without comm.)
Pommersfelden, GSB, 66 (2640), s. XIII, f. 34r–35r and 51rb–51vb (v. 24–77)
Pommersfelden, GSB, 129 (2689), s. XIV, f. 1ra–8ra
Vatican, BAV, Pal. lat. 1122, s. XIV, f. 124rb–134vb
Vatican, BAV, Pal. lat. 1340, s. XV, f. 245ra–258vb
Vatican, BAV, Pal. lat. 1368, s. XV, f. 43vb–45ra (without comm.)
Vatican, BAV, Pal. lat. 1381, s. XIV, f. 230ra–243rb
Vatican, BAV, Pal. lat. 1390, s. XIV, f. 16r–40v
Vatican, BAV, Vat. lat. 3096, s. XIV, f. 145r–160r
Vienna, ÖNB, 2388, s. XIII–XIV, f. 8r–22r
Vienna, ÖNB, 5417, s. XIV, f. 113ra–121va

C.3.1.4. Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, 'Iam premisi' version

This version is anonymous in all four manuscripts. The author knew and used Plato of Tivoli's translation (C.3.1.1). MS Berlin, SBPK, Hdschr. 95 preserves the propositions only and omits the commentary.

Note 1 The name of the commentator ('Abuiafar') found in three manuscripts of Plato of Tivoli's translation (see C.3.1.1, Note 1) is here consistently rendered as 'Abugafarus' or 'Bugafarus', cf. MSS Basel, UB, F.III.33 ('Liber fructus Ptolomei expositus a Bugafaro in quo sunt C verba'); London, BL, Additional 22808 ('Explicit Centilogium Ptholomei cum commento Abugafari conscriptum'); St Petersburg, BAN, F. 8 ('Liber Ptholomei expositus Abugafare in quo sunt 100 verba'); as well as Cracow, BJ, 578, a manuscript of Plato's translation where the title and the preface are given in the 'Iam premisi' version ('Liber fructus Ptholomei expositus a Buguafaro in quo sunt 100 verba'). MS Berlin, SBPK, Hdschr. 95 bears no attribution.

Note 2 Besides the manuscripts listed below, sections of this version occur in three manuscripts of the 'Mundanorum' version (Erfurt, UFB, Dep. Erf. CA 2º 379; Erfurt, UFB, Dep. Erf. CA 4º 376; Melk, SB, 601) and in three manuscripts of Plato's translation (Cracow, BJ, 578; Oxford, BL, Bodley 463; Paris, BnF, lat. 7307).

Text '(Basel, UB, F.III.33) **[TITLE]** Liber fructus Ptolomei expositus Abugafaro in quo sunt C verba. **[PREFACE]** Dixit Ptolomeus: Iam premisi libros in quibus tractavi de impressionibus planetarum in hoc mundo composito in quibus est magna utilitas in prescientia futurorum, et iste liber in se summatim illos comprehendit et quod evasit de experiencia in illis, nec applicabit ad huius scientiam qui non erit disciplinatus in inspectione premissarum ante istum et in scientiis aliis mathematicis. Sit ergo cum isto bonum omen. **[1]** Dixit Ptolomeus: Scientia astrorum ex te et illis, nec convenit peritum illorum prophetare secundum formam effectuum illorum singularium quemadmodum non oportet sentientem formas rerum sensibilium singularium sed in genere sibi convenientes. Et hic est modus iudicandi super originem... [COMM.] Quod

dixit Ptolomeus, "ex te et illis", significat quod qui res futuras prescire vult duabus viis oportet incedere. Una est ut consideret latitudinem planetarum et motum... **[2]** Quando elector eligit melius non est differentia inter ipsum et naturalem. [COMM.] Multi putaverunt hic Ptholomeus loqui de electionibus quas eligebant astrologi in inceptionibus operum... **[3]** Ille qui facit aliquid opus secundum naturam inveniet significatorem illius in nativitate fortem in illa natura. [COMM.] Expositio. Planete operantur in moribus et virtutibus et efficientibus quod elementa in corporibus et quicquid ita est... **[4]** Anima naturalis in prescientia futurorum iudicabit secundum secundas stellas et erit inspectio sua melior inspectione multorum iudicancium secundum ipsas stellas solummodo. [COMM.] Iam exposui in precedenti capitulo qualiter anima in (?) naturalis. Secunde vero stellarum sunt effectus... (1v) **[5]** Astrologus potest avertere multos effectus planetarum cum fuerit sciens naturam impressionis earum. Temperabit enim recepturum priusquam accidat. [COMM.] Expositio. Planete non exercent eosdem effectus in omni suscipienti, immo diversificantur secundum diversa subiecta... **[6]** Electio proficit quando est fortitudo planete addens super superfluitatem que est inter duos receptores. Si vero fuerit remissior non apparebit signum electionis licet tendat ad proficuum. [COMM.] Si ergo nativitatis et electionis fortitudo cum in significatione boni conveniunt, illud bonum augmentat electio... **[7]** Non consequitur iudicium supra mixtionem planetarum nisi sapiens consuetudinis et complexionis naturalis. [COMM.] Complexio stellarum est in hoc quod operantur earum nature in coniunctionibus et aspectibus quia coniunctiones et aspectus operantur... **[8]** Anima sapiens adiuvat celestem effectum sicut adiuvat seminans virtutem naturalem cum aratione et purgatione. [COMM.] Animam sapientem intelligit que novit virtutes celestes et comprehendit singulares naturas... **[9]** Forme mundi compositi obediunt formis celestibus ideoque signabant illas ymaginarii cum ingrediebantur planete in illas ad quem effectum volebant. [COMM.] In hoc capitulo vult Ptolomeus multa secreta ymaginum patefacere et forme quas in hoc seculo esse dicit sunt species animalium et plantarum... (2r) **[10]** Uti oportet infortuniis in electionibus sicut phisicus subtilis utitur veneno secundum sufficientem quantitatem. [COMM.] Imperiti astrologi ponunt significatores in omnibus electionibus suis fortunas faciuntque eas fortes... (5r) **[51]** Locus Lune in nativitate, ipse est gradus ascendens de circulo hora casus spermatis, et locus Lune in hora qua ceciderit sperma est gradus ascendens in hora nativitatis. [COMM.] Phisici noverunt quod more natorum in utero matrum sunt diverse nec sunt eedem in omnibus. Ex illis igitur est media mora et est cum Luna... (5v) **[60]** Crisis veri significatore<s> sunt hore in quibus apparet mutatio egritudinis ad bonum vel ad malum in tempore veloci. Tempora sunt essencia Lune in angulis quadratis que circuit circulus directus... (6r) [COMM.] Ptholomeus in hoc verbo docuit nos causas dierum determinabilium et que sunt inquid etiam determinabiles de bono ad malum et e converso et secundum ordines alterationes... (8v) **[99]** Alnehezio et habentes comas longas sunt de secundis stellarum et non sunt de illis. [COMM.] Iam petefecimus (!) quod secunda siderum sunt res que contingunt a stellis in aere, et vocant eas mabas (!) assuhub alhiazio et sunt iacula eo quod assimilantur illis in velocitate motus, et certum est quod sint de secundis et non de illis. **[100]** Alnaazic significat vapores siccos. Cum ergo fuerit in una parte significat ventos in eadem parte. Si fuerit in omnes partes significat diminutiones aquarum et turbationem aeris — erunt ex eadem regione. [COMM.] Expositio. Iam Aristoteles patefecit in Libro metheororum quod vapores aridi volantes ad ethera fuerint alnezic. Unde non est mirum si eorum apparitio significat desiccaciones aquarum — duabus noctibus movebaturque omni nocte motu sensibili. Intravit filius Alcolig pro brevi tempore et prefuit Egypto et eius partibus.

Acciditque in Egypto tunc quicquid dixit Ptholomeus. [**FINIS**] Hoc est quod ego malui exponere in hoc libro. Perfecta est eius expositio. Laus tibi sit Christe quoniam liber explicit iste. Amen.'

Bibl. Lemay 1995–1996, IV, 90–92; VII, 15 n. 6; Lemay 1999, I, 216–25; Rinaldi 2002, 64–65; Boudet 2014, 53; Boudet 2014a, 387; D. N. Hasse, 'Stylistic Evidence for Identifying John of Seville with the Translator of Some Twelfth-Century Astrological and Astronomical Texts from Arabic into Latin on the Iberian Peninsula', in *Ex Oriente Lux. Translating Words, Scripts and Styles in Medieval Mediterranean Society*, eds C. Burnett, P. Mantas-España, Córdoba-London, 2016, 19–43: 28–30; Boudet 2017, 608; Boudet 2019, 170–71; Boudet 2020, 285–86 and *passim*; Calcagno 2021, 19.

Modern ed. Lemay 1999 (unpublished). Samples from MS Basel, UB, F.III.33, have been edited by Boudet 2019, 170–71 (v. 51), and Boudet 2020, 290 (v. 8) and 296 (v. 51).

EDS ---

MSS Basel, UB, F.III.33, s. XIII, f. 1r–8v
Berlin, SBPK, Hdschr. 95, s. XV, f. 8r–15r (without comm.)
London, BL, Additional 22808, s. XV, f. 24ra–41ra
St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 142ra–152va

C.3.1.5. Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. before *c.* 1250

This translation was prepared by an anonymous translator at an unknown date before the middle of the thirteenth century, the approximate date of the Vác MS. Boudet notes that this version shares occasional words and phrases with Hugo Sanctelliensis's translation (C.3.1.2) and suggests that it may have been known and used by Hugo, in which case it would date from the first half of the twelfth century (Boudet 2019, 172–73, and Boudet 2020, 289–90 and 297–98). The two extant manuscripts are truncated. The Vatican MS preserves v. 6–88 and the last lines of the text, while the Vác MS only has the title (*Liber Ptolomei de centum verbis*), the preface and fragments of v. 1, 3–4, 24–26 and 28–31.

Text '(Vatican, BAV, Vat. lat. 5714) **[6]** ... si autem infirmum et illud superat (?) ad suam illud proprietatem... **[7]** 7. Sermo septimus. Dicit Ptol<omeu>s: Non pertinet ad iudicium in astrorum efficatia... [COMM.] Explanatio. Astrorum commixtioni dicunt ad quod ad eorum naturam pertinent et coniungitur... (105rb) **[8]** 8. Sermo octavus. Dicit Ptol<omeu>s: Anima sapiens et discreta efficatie circulari auxiliatur... [COMM.] Explanatio. Per hoc dicit anima sapiens illa vult intelligere que circulari... **[9]** 9. Sermo nonus. Dicit Ptol<omeu>s: Forme que in hoc seculo atarip, scilicet commistionis... [COMM.] Explanatio. Huius sententie intellectus expositio de ultis secretis... (105va) **[10]** 10. Sermo decimus. Dicit Tholomeus: De malis astris vel noxiis in electionibus tuis pone... [COMM.] Explanatio. Tropidi quidam et inisipientes (?) astrologi in omnibus electionibus... (109rb) **[51]** 51. Sermo quinquagesimus primus. Dicit Ptol<omeu>s: Lune locus in nativitatibus est p...es (?) in circulo in hora casus spermatis... [COMM.] Explanatio. Convenerunt sapientes et docti in natura dicentes quod status nati in

utero... (110rb) **[60]** 60. Sermo sexagesimus primus. Dicit Ptol<omeu>s: Termini in singnis veraces, videlicet hore in quibus mutatio status infirmi... [COMM.] Explanatio. In hoc sermone ostendit nobis Ptol<omeu>s causam terminorum in sudoribus — (112vb) **[88]** 88. Sermo octavagesimus octavus. Dicit Ptol<omeus>: Cum quesieris scire partem felicitatis per totum... (113ra) **[100]** [COMM.] ...sium (?) siccitatem denuntient. In eodem quoque libro retulit substantiam ventorum summum siccum esse — sed istis prohibetur legere. Pecat ergo qui eis huius dignitatis librum acommodit. Expletus liber totius sapientie largitorum.'

Bibl. Boudet 2017, 608–09; Boudet 2019, 172–73; Boudet 2020, 286 and *passim*; Calcagno 2021, 19.

Modern ed. Samples have been edited by Boudet 2019, 172 (v. 51), and Boudet 2020, 289 (v. 8) and 298 (v. 51).

EDS ---

MSS Vác, EK, 708.012/Fragm. 2, s. XIII, f. 1ra–2vb
Vatican, BAV, Vat. lat. 5714, s. XIII, f. 105ra–113ra

C.3.2. *Glosa super 60 propositionem Centilogii Ptholomei*

A commentary on v. 60 of the *Centiloquium*, on the critical days and periodicities of illnesses. The text is anonymous in the manuscripts, except in three instances where it is attributed to one 'Hispalensis' (London, BL, Harley 13), to 'Linconensis', i.e., Robert Grosseteste (Vatican, BAV, Pal. lat. 1116), and to a Dominican brother named John of Pisa (according to the title given to an Italian translation of the text in MS Florence, BNC, Magliabech. XI.124, s. XV, f. 71v–74r: 'Postile de frate Giovanni Pisense de lordine de frati predicatori sopra el sexto verbo del Centiloquio di Ptholomeo Pheludense, traducto de Latino in vulgare per messere Bonaventura de Iacopo Giliuoli da Ferrara...'). The earliest manuscript is London, BL, Harley 13, copied *c.* 1300, but the text already circulated in the 1260s/1270s in Paris, for it is referred to by Peter of Limoges and Henry Bate of Mechelen (see Steel/Vanden Broecke) and it was apparently part of Peter of Limoges's *Liber magnus iudiciorum* (see MS →Paris, BnF, lat. 7320). The opening word 'Albaharim' shows that the source text was Plato of Tivoli's translation (C.3.1.1), even though, as Panti pointed out ('La *Sententia*', 91), in one manuscript (Vatican, BAV, Pal. lat. 1116), this word has been replaced by 'Crises verius significatio sunt hore etc.', which corresponds to the opening words of the 'Mundanorum' version (C.3.1.3). The other quotations of the *Centiloquium* in the text are from Plato's translation. All manuscripts offer basically the same text, the main exception being that two of them have a hexadecagonal diagram entitled 'Circulus 16 angulorum', either within the text (Vatican, BAV, Pal. lat. 1116, f. 126v) or immediately after it (Berlin, SBPK, lat. fol. 192, f. 81r, among a set of three diagrams f. 80v–81v). On this diagram, see Note below.

Note The hexadecagonal diagram 'Circulus 16 angulorum', together with instructions for its use (inc. 'Circulus 16 angulorum describit dies creticos…'), is also found in MS →Berlin, SBPK, lat. fol. 646, s. XV, f. 19v–21v, as well as in the non-Ptolemaic MSS Munich, BSB, Clm 244, s. XIV, f. 140v and 146r; and Bamberg, Staatsbibliothek, Astr. 4, s. XV, f. 140v–141r. The instructions also occur in MS →Vatican, BAV, Pal. lat. 1116, immediately before the *Glosa* (f. 125v). These instructions have been edited by Dell'Anna 1999, II, 202–05 (from the Vatican and Munich MSS). Similar diagrams occur in other commentaries on v. 60 (C.3.3, C.3.21 and C.3.22), as well as in MS →Vienna, ÖNB, 10534, f. 61r, at the end of George of Trebizond's *Commentarii et expositiones in aphorismis Libri fructus Ptolomei* (C.3.11).

Text '(London, BL, Harley 13) Incipit glosa Hispalensis super 60 propositionem Centilogii Ptholomei que incipit sic: Albaharim etc. In oppositione [*read* propositione] ista Ptholomeus tria tangit. Primum est de occasione dierum creticorum, secundum de diebus indicativis crisis — de cronica et acuta ut de magna causa et brevi.'

Bibl. Dell'Anna 1999, I, 343–46 and 388–89 n. 554–66; C. Panti, 'La *Sententia Linconensis de diebus creticis*: un adattamento grossatestiano (?) della *Glossa Hispalensis super 60 propositionem Centilogii*', in *Edizioni, traduzioni e tradizioni filosofiche (secoli XII–XVI). Studi per Pietro B. Rossi*, eds L. Bianchi, O. Grassi, C. Panti, Canterano, 2018, I, 83–102; Steel/Vanden Broecke 2018, 71 and n. 202–03.

Modern ed. Dell'Anna 1999, II, 128–31 (from MS Vatican, BAV, Pal. lat. 1116); Panti, 94–102 (from MS Vatican, BAV, Pal. lat. 1116, with selected variant readings from London, BL, Harley 13 and Vatican, BAV, Reg. lat. 1452). Both editions include a reproduction of the diagram and a transcription of its content.

EDS ---

MSS Bergamo, BCAM, MA 388, s. XV, f. 59r–60r
Berlin, SBPK, lat. fol. 192 (963), s. XV, f. 79vb–81v
Darmstadt, HLHB, 739, s. XIV, f. 182rb–183vb
London, BL, Harley 13, s. XIII–XIV, f. 229ra–230rb
Vatican, BAV, Pal. lat. 1116, s. XV, f. 125v–126v
Vatican, BAV, Reg. lat. 1452, s. XIV, f. 121r–121v

C.3.3. *Propositio Tholomei de crisi*

A commentary on v. 60 of the *Centiloquium*, dealing with the outcome of an illness according to the fixed stars of the twelve signs and other astrological parameters. The earliest manuscript (Erfurt, UFB, Dep. Erf. CA 4º 215) was copied in England in the beginning of the fourteenth century, but the text may well be older, for it seems to be alluded to by Henry Bate of Mechelen in his *De diebus creticis periodorumque causis* (after 1281), ch. 17: 'Adhuc et ymaginum stellarum fixarum a quibus equidem omnis dependet transmutatio eorum que in spera generabilium continentur' (ed. Dell'Anna

1999, II, 125). In MSS Cambridge, PC, 204 and Oxford, BL, Ashmole 345, the commentary is preceded by the original text of v. 60 in Plato of Tivoli's translation (C.3.1.1) ('Albahaemi sane et certe sunt hore in quibus declarantur mutationes — omnis stella secundum quod illi de moribus'; the last paragraph of Abuiafar's commentary has been left out) and the whole work is entitled *Propositio Tholomei de crisi*. MS Erfurt, UFB, Dep. Erf. CA 4º 215 bears no title and preserves the commentary alone, but it is the only manuscript that includes the diagram referred to in the opening sentence, where both the Cambridge and Oxford MSS have a blank space for it.

Note According to its table of content, MS →Mühlhausen, SA, 60/2 once had a 'Figura Ptolemei de crisi', which probably denotes the diagram of the present commentary.

Text '(Erfurt, UFB, Dep. Erf. CA 4º 215) (88va) **[FIGURE]**. (88vb) **[TEXT]** Hec est figura Tpolomei (!) quam Haly suus comentator primitus sic decripsit. Quando et qualiter acuti morbi debent habere suas determinationes sive ad bonum sive ad malum — ut in pluribus ad salutem, set secundum motum proprium Lune fieret in 21 die. Explicit.'

Bibl. Carmody 1956, 21 (nos 38 and 40); Dell'Anna 1999, I, 83–86 and 137–41 n. 1–8; Lemay 1999, I, 423–24.

Modern ed. Dell'Anna 1999, II, 7–9 (from MS Cambridge, PC, 204).

EDS ---

MSS Cambridge, PC, 204, s. XV, f. 69vb–70vb
Erfurt, UFB, Dep. Erf. CA 4º 215, s. XIV, f. 88va–89vb
Oxford, BL, Ashmole 345, s. XIV, f. 74r–76r

C.3.4. William of Aragon, *Scripta supra Centilogium Ptholomei*

An extensive commentary on the *Centiloquium* composed by William of Aragon (*fl.* late thirteenth century). The commentary is based mainly on Plato of Tivoli's translation (C.3.1.1), but also on the 'Mundanorum' version (C.3.1.3), and includes Abuiafar's commentary in full. In MS Paris, BnF, lat. 7480, the three items are clearly distinguished, within each *verbum*, as 'Testus' for the proposition, 'Commentum' for Abuiafar's commentary and 'Glosa' for William's commentary. The other manuscripts preserve William's commentary only.

Text '(Paris, BnF, lat. 7480) Incipit liber centum verborum Ptholomei de significacione in communi que contrahitur ex stellis et ex vi anime super res futuras. **[TEXT]** Dixit Ptholomeus: Iam scripsi tibi, Iesare, id est domine, libros tractantes de hoc quod operantur stelle... Verbum primum Ptholomei. Sciencia stellarum ex te et illis est. Astrologus non debet dicere (1v) rem specialiter... **[ABUIAFAR'S COMM.]** Commentum prime proposicionis. Quod dixit Pthol<omeus>, ex te et illis, significat quod qui res futuras scientie desiderat duabus (2r) viis oportet incedere... (3r) **[WILLIAM'S COMM.]** Incipit scriptum supra

Centilogium Ptholomei a magistro Wuillelmo de Aragonia editum, hic est glosa. (3v) Sicut dixit Ptholomeus in proverbiis Almagesti: Non fuit mortuus qui sapienciam vivificavit, nec fuit pauper qui intellectum dominatus est — (151r) **[WILLIAM'S COMM.]** ... ita est ortus istius et ideo non planete dicenda sunt, hic enim satis dictum est superius. **[V. 100, TEXT]** Alnaezic significat siccos vapores — et ego Deum (153v) deprecor ut te diligat. Perfecta est huius libri translacio 17 die mensis Martii, 12 die mensis Gumedi secundo anno Arabum 530.'

Bibl. Carmody 1956, 17 (no. 3e); Lemay 1999, I, 389–95; Rinaldi 1999, 140; Rinaldi 2002, 67–68; P. Val Naval, *Estudio, edición crítica, traducción y comentario de la Summa supra Phisonomiam de Guillermo de Aragón (c. 1300)*, PhD dissertation, Universidad de Zaragoza, 2006, 70–71; Boudet 2014, 55. On William of Aragon, about whom very little is known, see I. Caiazzo, 'Animae sequuntur corpora. Le philosophe, les astres et la physiognomonie au XIII^{e} siècle', in *Body and Spirit in the Middle Ages. Literature, Philosophy, Medicine*, ed. G. Gubbini, Berlin-Boston, 2020, 139–64: 147–49.

Modern ed. ---

EDS ---

MSS Basel, UB, F.III.8, s. XIV, f. 1va–16vb
London, BL, Harley 1, s. XIV, f. 70va–79va
Naples, BN, VIII C 45, s. XV, f. 128r–169v
Paris, BnF, lat. 7480, s. XIV, f. 1r–153v

C.3.5. Andalo di Negro, *De infusione spermatis*

A commentary on *Centiloquium* v. 51 and on Pseudo-Ptolemy's *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5) written by Andalo di Negro (*c.* 1260–1334), whose name is given in all three manuscripts. The commentary also reports the opinion of one 'Hester', 'Ester' or 'Ester Catayus'.

Text '(ed. Thorndike) Tractatus de infusione spermatis secundum dominum Andelonem de Nigro de Ianua. Super verbo Centiloquii 51. Hester etiam Ptholomeus et Hermes dixerunt quod locus seu gradus signi in quo est Luna tempore infusionis spermatis est gradus ascendens in nativitate et quod gradus qui est ascendens in infusione spermatis, in dicto gradu illius signi erit Luna in tempore nativitatis. Dixerunt etiam Ptholomeus et Hermes quod cum Luna tempore infusionis spermatis est in ascendente, tunc mora nati in ventre matris est spatium 273 dierum et hec dicitur mora media... Ester Catayus habuit aliquam differentiam a Ptholomeo et Hermete... Sed Ptholomeus et Hermes dixerunt quod mora maior superabat mediam per dies 15... Dixerunt etiam quod planete qui dominabantur a conception usque ad nativitatem... Dixit Ester quod in omni conception necessaria sunt yles et alcocodeus acatzir — sicut quando aliquis planeta est alcocodeus mutatur mora ut capitulo alcocodei more dicitur.'

Bibl. Thorndike 1923–1958, III, 193–94; L. Thorndike, 'Notes upon Some Medieval Latin Astronomical, Astrological and Mathematical Manuscripts at the Vatican', *Isis* 47 (1956), 391–404: 395–97; Boudet 2019, 176.

Modern ed. Thorndike, 'Notes', 395–97 (from all three MSS).

EDS ---

MSS Vatican, BAV, Vat. lat. 4082, s. XV, f. 209va–210ra
Vatican, BAV, Vat. lat. 4085, s. XV, f. 28r–28v
Vienna, ÖNB, 5503, s. XVI, f. 115r–115v

C.3.6. *Memoriale Bendd. (?) de verbis Phtolomei*

A commentary on the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1). The text includes the propositions, but not Abuiafar's commentary, and ends with Pseudo-Ptolemy's *De cometis* (B.4). The preface and the proposition of v. 1 are omitted (except for the opening lemma) and the proposition of v. 2 is given in the 'Mundanorum' version (C.3.1.3). The commentary is attributed to one 'Benđđ' (?) in the explicit. Charles Burnett notes: 'This abbreviated name is intriguingly close to that of the talisman-maker in the *Liber prestigiorum Thebidis* called "Bedides" (2.57), but the abbreviation could equally be that of Ben David, and refer to a Jewish scholar' (Bohak/Burnett). The only known manuscript was copied in Germany (Magdeburg?) in the first half of the fourteenth century and probably early in that century, judging from notes added immediately after the explicit by the scribe or a similar hand referring to events that occurred from March to May 1316 ('Anno 1316, ultimo die Martii electio, 7 die Aprilis rumor...').

Text '(Vatican, BAV, Pal. lat. 1401) Rememoratio centum verborum Tolomei. Scientia stellarum ex te et ex illis est: Ex te quidem per vim anime intellectivam quando separatur anima ab affectu rerum exteriorum — ex aliqua civitate illius climatis. Quandoque apparet cometa ad modum stelle — in regibus et divitibus aparebit. Explicit memoriale Benđđ. (?) de verbis Ph<tolome>i.'

Bibl. Bohak/Burnett 2021, 92.

Modern ed. ---

EDS ---

MSS Vatican, BAV, Pal. lat. 1401, s. XIV, f. 84v–94v

C.3.7. *De creticis diebus in continuis febribus et acutis*

A commentary on v. 60 of the *Centiloquium*, dealing with the outcome of an illness from the aspects of the Moon to the Sun and other astrological configurations. The only known manuscript was copied in the first half of the fourteenth century, probably in Italy or Spain, and belonged to an astrologer active in Spain, perhaps Alfonsus Dyonisii of Lisbon (d. 1352).

Text '(Paris, BnF, lat. 7316A) De creticis diebus in continuis febribus et acutis iuxta Ptolomeum secundum quod Lune status invenerit certificemus. Ad quod oportet scire Lunam in zodiaco 8 proportiones habere. Prima et principalis est existentia gradus in quo cum Sole est, et dicitur coniunctio... Iuxta ergo Ptolomeum vera cretica dies est prima, 7, 14, 20, 21 — quod si eundo obviat malignis vel fixis que dicuntur puthei sentiet eger passionis detrimentum.'

Bibl. Carmody 1956, 21 (no. 39); Dell'Anna 1999, I, 87–90 and 141 n. 11–19.

Modern ed. Dell'Anna 1999, II, 5–6.

EDS ---

MSS Paris, BnF, lat. 7316A, s. XIV, f. 50rb–51ra

C.3.8. Reimbotus de Castro (?), ⟨*Commentum in Centiloquium*⟩

A commentary on the *Centiloquium* copied by Reimbotus de Castro in his personal notebook dating from *c.* 1356–1388 [Plate 8]. This commentary may be by Reimbotus, but it may also consist of *reportationes* of lectures he attended as a student in Paris in 1367–1370, as is the case for other texts in his notebook (Lička, 309 n. 30). The text opens with v. 2 and skips several *verba*. The original propositions are not included, but the source text seems to have been Plato of Tivoli's translation (C.3.1.1).

Text '(Vatican, BAV, Pal. lat. 1380) Nota circa secundum verbum Ptolomei in Centiloquio. Et inquirit utrum orbes celestes moveantur ab anima in ipsis orbibus existens — tunc destruentur consules regis, quia secunda domus significat consules regis.'

Bibl. Boudet 2014, 54; Calcagno 2021, 19. On Reimbotus de Castro, see L. Schuba, 'Reimbotus de Castro, Leibarzt Kaiser Karls IV. und Scholastikus an St German vor den Toren der Stadt Speyer (Vat. Pal. Lat. 1349)', in *Miscellanea Bibliothecae Apostolicae Vaticanae*, V: *Palatina Studien*, Vaticano, 1997, 287–93; M. Říhová, 'Reimbotus Once Again', in *Roma-Praga, Praha-Řím: Omaggio a Zdeňka Hledíková*, Praha, 2009, 89–98; L. Lička, 'The Aims of *Perspectiva* in 1360s Paris: Investigating Texts Written in the Hand of Reimbotus de Castro', in *Books of Knowledge in Late Medieval Europe: Circulation and Reception of Popular Texts*, eds P. Cermanová, V. Žůrek, Turnhout, 2021, 299–329.

Modern ed. ---

EDS ---

MSS Vatican, BAV, Pal. lat. 1380, s. XIV, f. 65r–80v

C.3.9. Andreas Grzymala, ⟨*Commentum in Centiloquium*⟩

A commentary on the *Centiloquium* by Andreas Grzymala of Poznań, professor at the University of Cracow from *c.* 1447 (when he earned his master's degree) until his death in 1466. Andreas Grzymala taught astronomy for a few years only, until he became professor of poetry and rhetoric *c.* 1450. He produced his *Canones*

tabularum resolutarum in or soon after 1448 and it is likely that his commentary on the *Centiloquium* dates from about that time. He signed his work in the initials of the first words of the preface ('**G**loriosus **r**eor **z**onas **i**ntueri **m**undiales **a l**imitibus **a**ltis'), as was common among Cracow authors of the fifteenth century. The exact nature of this commentary, however, is unclear. Rosińska speaks of university lectures, which is entirely plausible. In the only known manuscript, this commentary consists of a preface (p. 71), a substantial introduction (pp. 72–74) and the commentary proper, which mainly gives the opinion of other scholars (Robert Grosseteste, Albertus Magnus, Ptolemy in the *Quadripartitum*, Alkindi, Leopold of Austria, Albumasar, Bede, Hippocrates, Almansor, Razes, etc.), copied in the margins of the text of the *Centiloquium* (from p. 75 onwards). This commentary, however, breaks off after v. 20 (p. 85) and it is unclear whether it was left unfinished or whether the scribe of the manuscript stopped copying it at that point. The source text for the *Centiloquium* is Plato of Tivoli's translation (C.3.1.1), but the 'Mundanorum' version (C.3.1.3) has also been copied in the margin, where it is intertwined with the commentary. See also the manuscript entry.

Text '(Cracow, BJ, 1857) **[PREFACE]** Gloriosus reor zonas intueri mundiales a limitibus altis divino afflatu in vere officinam mundi inferioris radiantes... (72) **[COMM.]** In nomine Ihesu. Circa prohemium Centum verborum dum dicit: Mundanorum mutacio etc. Albertus Magnus in Libro de fato talem mutacionem dicit formam ordinis esse... (75) **[TEXT]** Mundanorum ad hoc vel ad illud mutacio corporum celestium mutatione — et ego Deum precor ut te dirigat.'

Bibl. Rosińska 1984, nos 341 and 771; Markowski 1990, 27; M. Markowski, 'Repertorium bio-bibliographicum astronomorum Cracoviensium medii aevi: Adam Tussinus de Tarnovia — Andreas Grzymała de Posnania', *Studia Mediewistyczne* 27.1 (1990), 111–63: 148; Kaliszuk/Pieniądz 2019, 38–39 (no. 25/2). On Andreas Grzymala (Andrzej Grzymała), see also A. Birkenmajer, 'Andrzej Grzymala de Poznań, astronome et médecin du XV^{e} siècle', in A. Birkenmajer, *Études d'histoire des sciences en Pologne*, Wrocław, 1972, 515–26 [originally published in Polish in 1958]; Markowski 1990, 25–27; Markowski, 'Repertorium', 144–48; P. W. Knoll, *'A Pearl of Powerful Learning'. The University of Cracow in the Fifteenth Century*, Leiden-Boston, 2016, 386; Kaliszuk/Pieniądz 2019, 38–39.

Modern ed. ---

EDS ---

MSS Cracow, BJ, 1857, s. XV, pp. 71–128

C.3.10. *De gradu ascendentis investigando*

A commentary on v. 34 of the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1) and on Pseudo-Ptolemy's *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5), i.e. on the rectification of nativities according to both Ptolemy's animodar and

the 'Trutina Hermetis'. The text is extant in a single manuscript, copied in the fifteenth century probably in Italy and which is likely to be the author's copy. In this manuscript, the commentary is preceded on f. 83r–84r by Ptolemy's chapter on the animodar from the *Quadripartitum* (III.2), together with Haly Abenrudian's commentary in Egidius de Tebaldis's translation (C.2.2).

Text '(Vienna, ÖNB, 3124) De gradu ascendentis investigando secundum Ptolomeum et secundum alios invenitur facies vel saltem signorum. [TEXT] Ptolomeus verbo 34 Centiloquii inquit: Almusteuli super gradu coniunctionis erit in simili gradu anguli... [COMM.] Expositio. Primo oportet investigare gradum coniunctionis vel preventionis que fuerit ante nativitatem et proprior... (85ra) De gradu ascendentis verissime inveniendo. Semper Luna in nativitate gradus eius describit in conceptione... [TEXT] Dixerunt Pth<olomeu>s et Hermes: Locus Lune in nativitate hominis est gradus... [COMM.] Expositio. Equabis Lunam in hora nativitatis... (85rb) Glosa circha (!) expositionem. Equabis Lunam hora nativitatis etc. Ad equandum Lunam in hora nativitatis, oportet ut primo habeamur gradum ascendentis — secundum distanciam horarum et minutorum a puncto conceptionis ad punctum nativitatis.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Vienna, ÖNB, 3124, s. XIV–XV, f. 84v–85va

C.3.11. George of Trebizond, *Commentarii et expositiones in aphorismis Libri fructus Ptolomei*

An extensive commentary on the *Centiloquium* composed by George of Trebizond in Naples in 1453–1454 and addressed to King Alfonso V of Aragon. George prefaced the commentary with his own translation of the original text from the Greek (B.1.7). In six manuscripts (Gloucester, CL, 15; Jena, TULB, 4 Phil. X.12; St Petersburg, RNB, lat. Q.III.636; Vienna, ÖNB, 10534; Wroclaw, ZNO, 759; and Wroclaw, ZNO, 764) and two printed editions (Cologne 1544 and Basel 1550), the text and the commentary are given in alternating sequence for each *verbum*. MSS Basel, UB, O.III.30 and Chicago, NL, Case 93–2 contain George's autograph corrections. Four manuscripts (Cracow, BJ, 1839; Cracow, BJ, 3224; London, LP, 478; and Vienna, ÖNB, 4782) preserve the translation only and omit the commentary. George's translation was used in commentaries C.2.21 and C.3.20.

Note In addition to the manuscripts listed below, sections of George's translation occur as glosses in one manuscript of Plato of Tivoli's translation (C.3.1.1), MS Cracow, BJ, 2490, and in one manuscript of the 'Iam premisi' version (C.3.1.4), MS Berlin, SBPK, Hdschr. 95.

Text '(Paris, BnF, lat. 7309) (1r–9v) **[TRANSLATION] [GEORGE OF TREBIZOND'S PREFACE]** Liber Claudii Ptolomei qui vocatur fructus ad illustrissimum Alfonsum regem Aragonum et utriusque Siciliae a Georgio Trapenzontio ex Greco in Latinum versus. Librum Claudii Ptholomei mihi Alfonse rex inclyte traductum quem vulgo Centiloquium ipse fructum appellat — et quod nec Ptholomeus sentit nec apparentia nonum ponere orbem cogere videntur. **[AUTHOR'S PREFACE]** Iam pridem perutiles ad previdendum operationes stellarum, o Syre, quas in hoc composito efficiunt mundo exposuimus... **[1]** Primus aphorismus. Abs te et a scientia, non est enim possibile ut huius scientiae professor particulares rerum ideas prevideat... **[2]** 2. Quando qui deliberat queret ipsum melius non erit... **[3]** 3. Qui ad rem aliquam aptus est habebit omnino stellam eius... **[4]** 4. Animus qui ad intelligentiam rerum aptus est... **[5]** 5. Potest huius scientie professor multos effectus stellarum evertere... **[6]** 6. Tunc dierum atque horarum electio confert... **[7]** 7. Nemo potest complexiones stellarum percipere nisi... **[8]** 8. Animus sapiens celesti potestati cooperantur... **[9]** 9. Forme que generantur et corrumpuntur coelestibus formis... **[10]** 10. In electionibus dierum atque horarum infortunantibus etiam stellis... **[51]** 51. Ubi est Luna in tempore nativitatis, illu signum in conceptione... **[60]** 60. In egrotis respice creticos dies et locum hunc in angulis figure... **[99]** 99. Transcurrentes stellae siccitatem aeris significant... **[100]** 100. Stelle vero comate quae undecim a sole distant — Sin vero non moventur hostis indigena erit. Finis. (9v–68r) **[COMMENTARY] [GEORGE OF TREBIZOND'S PREFACE]** Commentarii et expositiones Georgii Trapezontii in aphorismis libri fructus Ptolomei ad Alphonsum regem Aragonum et utriusque Siciliae. Libellus hic quem de Greco traductum nomini tuo dedicavimus, illustrissime rex... **[COMM. 1]** 1. Abs te et a scientia: Abs te inquit, hoc est a quadam insita... **[COMM. 2]** 2. Quando qui deliberat: Questionum ac interrogationum apexit fundamentum... **[COMM. 3]** 3. Qui ad rem aliquam: Nam qui ad fingendas fabulas... **[COMM. 4]** 4. Animus qui: Hic aphorismus omnibus facultatibus... **[COMM. 5]** 5. Potest huius scientie professor: Utilitatem in hoc aphorrismo huius scientie... **[COMM. 6]** 6. Tunc dierum atque horarum: Si principium agenda rem eligis... **[COMM. 7]** 7. Nemo potest complexiones: non qod calide aut frigide... **[COMM. 8]** 8. Animus sapiens: Differt a quinto, ibi enim... **[COMM. 9]** 9. Forme que generantur et corrumuntur: huiusmodi sunt omnes que de potentia... **[COMM. 10]** 10. In electionibus: Non fortunantibus solum et ut ita dicam... **[COMM. 51]** 51. Ubi est Luna: Apertus clarusque per seipsum... **[COMM. 60]** 60. In egrotis respice creticos: D<ies> cretici dies a medicis dicuntur... **[COMM. 99]** 99. Transcurrentes stelle: Dixit in precedenti quam vim habeant stellae ... **[COMM. 100]** 100. Stelle vero comate: Quae undicim inquit signis — ut sicut raro apparent, sic inconsueta significare videantur.'

Bibl. Lemay 1978, 105; Monfasani 1984, 689–97 and 750–51; Lemay 1999, I, 397–412; Rinaldi 1999; Rinaldi 2002, 73–95 and 257–60; L. Giorgetti, 'Da Giorgio Trapezunzio a Luca Gaurico intorno a Tolomeo', *Roma nel Rinascimento* (2002), 201–12: 202–03; M. Rinaldi, 'La traduzione ed i commentari sul *Καρπός* pseudo-tolemaico di Giorgio da Trebisonda', *MHNH* 11 (2011), 544–56; Boudet 2014, 55; Lerch 2015, 38; Calcagno 2021, 19–20.

Modern ed. None, except for the prefaces to Alfonso V, ed. Monfasani, 97–98 (preface to the translation) and 99–100 (preface to the commentary), and v. 2 and 38 by Rinaldi 2002, 258–60 (from MS Basel, UB, O.III.30).

EDS Rome, Valerius Doricus & Ludovicus Doricus, 1540, sig. B_ir–[N_{iv}]r
Cologne, Johannes Gymnicus, 1544, sig. [A_4]v–[K_6]r
Basel, Jacobus Parcus, 1550, second part, sig. 1–62

MSS Basel, UB, O.III.30, s. XV, f. 4r–84v
Berlin, SBPK, Hdschr. 95, s. XV, f. 148r–150r (v. 6–7, 12–13, 16–18, 23–24)
Chicago, NL, Case 93–2, s. XV, f. 2r–93r
Cracow, BJ, 1839, s. XVI, f. 82va–82vb and 89ra–89va (v. 1–81, without comm.)
Cracow, BJ, 3224, s. XVI, p. 224 (v. 3–5, 12, 16, 18, without comm.)
Gloucester, CL, 15, s. XV–XVI, 107rb–120vb
Jena, TULB, 4 Phil. X.12, s. XVI, f. 122r–164r
London, LP, 478, s. XV, f. 79r–89r (without comm.)
Paris, BnF, lat. 7308, s. XV, f. 1r–76r
Paris, BnF, lat. 7309, s. XV, f. 1r–68r
St Petersburg, RNB, lat. Q.III.636, s. XV, f. 1r–46v
Vatican, BAV, Vat. lat. 4076, s. XVI, f. 1r–79r
Vienna, ÖNB, 4782, s. XV, f. 1r–13r (without comm.)
Vienna, ÖNB, 5503, s. XVI, f. 61r–101v
Vienna, ÖNB, 10534, s. XVI, f. 44r–61r
† Wroclaw, BU, R 339, s. XV, f. 3r–21v
Wroclaw, ZNO, 759, s, XVI, f. 84r–114r
Wroclaw, ZNO, 764, s. XVI, f. 196r–218v

C.3.12. Johannes Regiomontanus, *Ex Centiloquio Ptolemei*

A summary and paraphrase of the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1), v. 1–4, 6, 9–10, 13–16, 18–26, 29–30, 33, 37–38, 41–53, 55, 57, 60, 62–65, 67–69, 71–73, 77, 80–81, 83–85, 87, 89–92, 95–96 and 99–100, by Regiomontanus. The only known manuscript is Regiomontanus's autograph, which Zinner dates to *c.* 1461 (see MS entry).

Text '(Vienna, ÖNB, 10745). Ex Centiloquio Ptolemei. 1. Hali duplum exponit hoc verbum. Ex te, id est tuo experimento, et illis, scilicet scriptis maiorum, aliter ex te scilicet — mors regis Egipti, hostes ingressi sunt Egiptum.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Vienna, ÖNB, 10745, s. XV, f. 43v–45r

C.3.13. Michael Foresius (?), ⟨*Commentum in verbum 56 Centiloquii*⟩

A short commentary on v. 56 of the *Centiloquium* found in a manuscript copied *c.* 1470 by the physician Michael Foresius, who became rector of the University of Mainz in 1500.

Text '(Berlin, SBPK, Hdschr. 95) Nota quod quadre de quibus in 56 verbo Centiloquii fit mentio quibus humiditates moventur non intelliguntur de quartis ecentrici Lune sed de quadris diei naturalis — vel ab angulo terre mors advenit festine.'

Bibl. On Foresius, see G. Mentgen, 'Dr Med. Michael Foresius, Rektor der Universität Mainz im Jahr 1500', *Mainzer Zeitschrift. Mittelrheinisches Jahrbuch für Archäologie, Kunst und Geschichte* 99 (2004), 143–46.

Modern ed. ---

EDS ---

MSS Berlin, SBPK, Hdschr. 95, s. XV, f. 181r

C.3.14. Lorenzo Bonincontri, *Commentum super Centiloquio Ptholomei*

A lemmatic commentary on the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1) written by Lorenzo Bonincontri in or before 1477 (date of copy of MS Florence, BML, Plut. 29.3) and probably when he was lecturing on astrology at the University of Florence (1475–1478). Abuiafar's commentary is ignored. MS Vatican, BAV, Vat. lat. 3379 is Bonincontri's autograph copy [Plate 19].

Text '(Vatican, BAV, Vat. lat. 3379) Laurentii Bonincontri Miniatensis super Centiloquio Ptholomei. **[PREFACE]** Astrologiam esse omnium liberalium artium, pueri ornatissimi, excellentissimam nemo est qui ignoret, tum propter ipsius scientie nobilitatem — (62v) hec sint intimanda personis ex Ptholomei verbis diiudicare poteritis. **[TEXT]** Scientia stellarum ex te et illis est: Hoc est ut sis homo huic vite in quem benignitas salvatoris... (63r) Astrologus non debet dicere rem specialiter sed universaliter etc.: De particularibus non esse scientia manifestum est — quoniam in anima rationali non possunt quicquid operari, unde ergo dicitur et scriptum est. A signis celi nolite metuere. Deo igitur laus, honor et gloria per infinita saecula saeculorum. Amen. Laurentii Bonincontri Miniatensis commentum super Centiloquio Ptholomei.'

Bibl. B. Soldati, *La poesia astrologica nel Quattrocento*, Firenze, 1906, 135 and n. 2; Thorndike 1923–1958, IV, 408–09; Lemay 1999, I, 424; Rinaldi 1999, 141–43 n. 49–52; Rinaldi 2002, 96–106 and 246–51; L. Giorgetti, 'Da Giorgio Trapezunzio a Luca Gaurico intorno a Tolomeo', *Roma nel Rinascimento* (2002), 201–12: 203–06; Weill-Parot 2002, 743–47; M. Rinaldi, 'L'inedita *Expositio super Centiloquio Ptholomei* in Lorenzo Bonincontri', *MHNH* 15 (2015), 271–80; Calcagno 2021, 20.

Modern ed. The preface is edited by Rinaldi, 'L'inedita *Expositio*', 276–78, with an Italian translation, 278–80.

EDS ---

MSS Florence, BML, Plut. 29.3, s. XV, f. 24r–59v
Vatican, BAV, Vat. lat. 3379, s. XV, f. 62r–114r

C.3.15. Conrad Heingarter, ⟨*Commentum in Centiloquium*⟩

A commentary on the *Centiloquium* in Plato of Tivoli's translation (C.3.1.1), composed by Conrad Heingarter for the duke of Bourbon Jean II in or slightly before 1477. The unique manuscript was copied under Conrad's supervision and was meant to be the presentation copy to the duke. As in the case of his commentary on the *Quadripartitum* (C.2.10), Conrad composed a preface to Jean II and rewrote and expanded on Abuiafar's commentary (here attributed to Haly) to some extent.

Text '(Paris, BnF, lat. 7432) Incipit Centilogium Ptholomei. **[TEXT]** Prologus Haly. Dixit Ptholomeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc seculo... Propositio prima. Mundanorum mutatio ad hoc et ad illud corporum supercelestium... (135r) **[CONRAD HEINGARTER'S PREFACE]** Vetus oppinio est (ut dicit Cicero) iam usque ab heroicis ducta temporibus eaque et veteris populi Romani et omnium gentium firmata... ego vero tuus Conradus Heingarter excellentissime princeps Iohannes Borbonii atque Arvernie dux — illis premissis rem accedamus ipsam. **[COMM.]** Dixit Ptholomeus propositione prima: Iam scripsi tibi, Iesure, id est domine, libros de hoc quod operantur stelle in hoc mundo et sunt multe utilitatis illis qui volunt prescire futura — **[TEXT]** ... si vero fuerint immobiles, erit proditor ex aliqua civitatum eiusdem climatis. **[COMM.]** ... ut perfecta atque completa secundarum stellarum notitia atque eorum (!) significatio (?) appareat. Et inveni quemdam parvum tractatum de speciebus cometum seu cometarum qui Ptholomeo ascribitur, eumque adiunximus in fine verbis Ptholomei, eumque glosavimus ut sequitur.'

Bibl. Préaud 1969, XIV–XV; M. Préaud, 'Les méthodes de travail d'un astrologue du XV^e^ siècle, Conrad Heingarter', *Position des Thèses de l'École des Chartes* (1969), 143–49: 145; Lemay 1978, 105; Lemay 1999, I, 396; A. Grafton, *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer*, Cambridge (Mass.), 1999, 136 and 141; Rinaldi 1999, 142–43; Rinaldi 2002, 106–08; Boudet 2014, 54; Calcagno 2021, 20–21.

Modern ed. Transcription of the beginning (MS Paris, BnF, lat. 7432, f. 134v–136r) by Rinaldi 2002, 243–45.

EDS ---

MSS Paris, BnF, lat. 7432, s. XV, f. 134v–146r

C.3.16. Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei*

An extensive commentary on the *Centiloquium* written by Giovanni Pontano (1429–1503) in Naples in 1477–1479. The commentary includes, for each proposition, Pontano's own translation of the original text from the Greek (B.1.9). The work is divided into two books. Book I (v. 1–50) was completed in 1477 and addressed to the duke of Urbino Federico da Montefeltro. Book II (v. 51–100) was completed in 1479 and addressed to Pontano's close friend and member of the Accademia

Pontaniana Pietro Golino (Petrus Compater). Pontano kept revising his work until 1490, as witnessed by MS Rome, BANLC, 43 F 2, which preserves the final version with Pontano's autograph corrections. MS Vatican, BAV, Vat. lat. 5984 preserves both a first draft of the text in Pontano's hand (f. 177r–314v) [Plate 18] and a revised version with autograph corrections (f. 1r–173r). MS Venice, BNM, lat. VIII.66 (Book I only) is an autograph copy and MS Vatican, BAV, Urb. lat. 1393 (also Book I only) contains autograph corrections. Three manuscripts (Munich, BSB, Clm 26764; Vienna, ÖNB, 5209; and Warsaw, BN, Rps 6627 III) and most of the early printed editions preserve the translation only and omit the commentary. Pontano's translation is the source text of commentary C.3.22 and was also used in commentary C.2.21.

Note 1 In addition to the manucripts listed below, v. 51 is found as part of commentary C.2.13 in MS Cracow, BJ, 1963, f. 64r–64v.

Note 2 Pontano also translated from the Greek a few passages from *Tetrabiblos* I.8 and I.23. These passages, found in MS Milan, BA, G. 109 inf., s. XV, f. 30r and 32r–32v (autograph), have been edited by M. Rinaldi, 'Per gli studi astrologici del Pontano: un autografo inedito e quattro frammenti di traduzione dal greco nel codice Ambrosiano G. 109 inf., ff. 30r–32v', *Atti della Academia Pontaniana. Nuova Serie* 50 (2001), 335–78. These fragments were translated by Pontano for his own use and do not form an independent work.

Text '(ed. Naples 1512) **[BOOK I]** Ioannis Ioviani Pontani commentationum in centum sententiis Ptolemaei ad Federicum Urbini ducem lib<er> primus. **[PREFACE]** Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime — quam laborum studiique huius nostri laudem inde quaeri. **[1]** I. Ptolemaeus. A te et a scientia. Fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet, sicuti nec sensus particularem, sed generalem... [COMM.] Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio... **[2]** II. Ptolemaeus. Cum is qui consultat ipsium melius scrutabitur... [COMM.] Pontanus. Haec sententia ad auspicationes, consultationes et rerum incepta... **[3]** III. Ptolemaeus. Qui ad rem quampiam aptus est habebit profecto... [COMM.] Pontanus. Superiori verbo cum essent dictum species rerum earum... **[4]** IIII. Ptolemaeus. Anima ad cognitionem apta veri plus assequitur... [COMM.] Pontanus. Et a stellarum munere et a rerum coeli peritia... **[5]** V. Ptolemaeus. Potest qui sciens est multos stellarum effectus avertere... [COMM.] Pontanus. Cum elementa ipsa invicem convertantur necesse est... **[6]** VI. Ptolemaeus. Tunc dierum prodest et horarum electio cum tempus a genitura... [COMM.] Pontanus. Ea coeli pars quae hora nativitatis supra terras ascendit... **[7]** VII. Ptolemaeus. Non potest quispiam stellarum misturas percipere... [COMM.] Pontanus. Primo nobis verbo declaravit Ptolemaeus versari mathematicum... **[8]** VIII. Ptolemaeus. Sapiens anima confert coelesti operationi... [COMM.] Pontanus. Quanquam generi animalium est omni naturaliter... **[9]** IX. Ptolemaeus. In generatione atque corruptione formae afficiuntur a coelestibus formis... [COMM.] Pontanus. Ut supra est dictum utque inter

physicos constat... **[10]** X. Ptolemaeus. In dierum horarumque electionibus utere maleficis... [COMM.] Pontanus. Nec omnes morbi eisdem curantur remediis — **[50]** ... cognitio eorum quae fiunt in mundo et generationis et corruptionis. [COMM.] ... sunt centum decem et novem, septem simul planetarum coniunctione adiuncta. Finis. **[BOOK II]** Ioannis Ioviani Pontani ad Petrum Compatrem Neapolitanum. Commentationum in centum sententiis Ptolemaei liber secundus. **[PREFACE]** Queruntur de natura Petre Compater et quidem non pauci, quod ea prorsus iniusta atque omnino imprudens sit — hoc est divinae constitutioni insolenter frustraque praescribere. **[51]** LI. Ptolemaeus. In quo signo Luna est geniturae tempore, illud in conceptu fac ascendens... [COMM.] Pontanus. Plinii Secundi ex septimo Naturalis historiae libro de partu hominis verba sunt... **[60]** LX. Ptolemaeus. Super aegrotis criticos dies inspice ac Lunae peragrationem in angulis... [COMM.] Pontanus. Qui sint critici dies non medicis solum, verum etiam cuivis aliquo ingenio preadito satis cognitum est... **[99]** XCIX. Ptolemaeus. Traiectiones aeris siccitatem indicant... [COMM.] Pontanus. Consentaneum erat ut traiectionum crinitarumque significationes... **[100]** C. Ptolemaeus. Cometae quorum intercapedo est undecim signorum a Sole... [COMM.] Pontanus. Stella critina, quam comatam non minus recte diceremus — ... sin non moventur, provincialis hostis erit. [COMM.] ... tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia. Finis.'

Bibl. Lemay 1978, 105–06; Lemay 1999, I, 412–18; Rinaldi 1999; Rinaldi 2002; M. Rinaldi, *'Sic itur ad astra'. Giovanni Pontano e la sua opera astrologica nel quadro della tradizione manuscritta della* Mathesis *di Giulio Firmico Materno*, Napoli, 2002, 150–217; O. Pompeo Faracovi, 'Le immagini e le forme. Pontano e il commento al nono aforisma del *Centiloquio*', *BC* 10 (2004), 73–86; M. Rinaldi, 'Un sodalizio poetico-astrologico nella Napoli del Quatroccento: Lorenzo Bonincontri e Giovanni Pontano', *MHNH* 4 (2004), 221–43: 237–43; M. Rinaldi, 'Due capitoli sulla fortuna delle *Commentationes in Ptolemaeum* di G. Pontano. Le *Eruditiones ad Apostelemata Ptolemaei* di Agostino Nifo e il *Libellus de difficitionibus et terminis astrologiae* di O. Brunfels', *MHNH* 10 (2010), 201–16; M. Soranzo, 'Giovanni Giovano Pontano (1429–1503) on Astrology and Poetic Authority', *Aries* 11 (2011), 23–52: 35–41; M. Rinaldi, 'La lettera di dedica a Federico da Montefeltro del primo libro delle *Commentationes in centum sententiis Ptolemaei* di Giovanni Gioviano Pontano', *Cahiers de Recherches Médiévales et Humanistes* 25 (2013), 341–55; Lerch 2015, 37–38; M. Rinaldi, 'Pontano, le "elezioni" e i pronostici annuali: tra astrologia dotta e astrologia "popolare"', in *Acta Conventus Neo-Latini Vindobonensis. Proceedings of the Sixteenth International Congress of Neo-Latin Studies (Vienna 2015)*, eds A. Steiner-Weber, F. Römer et al., Leiden-Boston, 2018, 571–80; M. Rinaldi, '*Nec vero terrae ferre omnes omnia possunt*. Pontano, Virgilio e l'origine celeste della divinazione naturale e dell'ispirazione poetica', in *L'Exemplum virgilien. Itinera Parthenopea*, I, Paris, 2018, 271–93; M. Rinaldi, '*Obscurus sane hic aphorismus est.* A proposito di alcune interpolazioni nei manoscritti delle *Commentationes in centum sententiis Ptolemaei* di Giovanni Pontano', in *Dulcis alebat Parthenope. Memorie dell'antico e forme del moderno all'ombra dell'accademia Pontaniana*, eds G. Germano, M. Deramaix, Napoli, 2020, 227–37; Calcagno 2021, 20.

Modern ed. Critical edition by R. Rinaldi, *Giovanni Pontano: Commentationes in centum sententiis Ptolemaei*, Turnhout, 2025; Italian translation by M. Rinaldi, *Giovanni Pontano: Commentari sulle cento sentenze di Tolomeo*, Sarzana-Lugano, 2024 (on the basis of his own critical edition).

EDS Naples, Sigismundus Mayr, 1512, sig. A_{ii}r–[K_{vii}]r
Venice, Aldus Manutius & Andreas Socerus, 1519, sig. 2r–93r
Florence, Philippus Junta, 1520, sig. 2r–144r
Nürnberg, Georgius Wachter, 1530, sig. C_5v–[C_7]r (v. 60–61)
Basel, Andreas Cratander, 1531, sig. 1–169
Basel, Johannes Hervagius, 1533, second part, sig. 74–78 (without comm.)
Nürnberg, Johannes Petreius, 1535, sig. 33r–37r (without comm.)
Basel, Andreas Cratander, 1540, sig. 1–170
Basel, Henricus Petri, 1541, sig. 500–504 (without comm.)
Basel, Henricus Petri, 1551, sig. 438–442 (without comm.)
Basel, Johannes Hervagius, 1551, second part, sig. 74–78 (without comm.)
Basel, Johannes Oporinus, 1553, first part, sig. 252–69 (without comm.)
Basel, Henricus Petri, 1566, III, sig. 2601–2878
Lyon, Philippus Tinghus, 1581, I, sig. 837–840 (without comm.)
Lyon, Philippus Tinghus, 1583, I, sig. 837–840 (without comm.)
Prague, Casparus Kargesius, 1610, sig. 262–280 (without comm.)
Frankfurt/M., Joannes Bringerus, 1611, sig. 288–308 (without comm.)
Frankfurt/M., Joannes Bringerus, 1622, sig. 288–308 (without comm.)
Ulm, apud Ludovicum Lanovum, 1641, sig. 1–16 (without comm.)
Perugia, Petrus Thomasius, 1646, sig. 345–370 (without comm.)
Padua, Paolo Frambotto, 1658, sig. 179–192 (without comm.)
Ulm, Ludovicus Lanovus, 1674, first part, sig. 1–16 (without comm.)

MSS Dublin, CBL, W 108 III, s. XV, f. 157v–261r
Florence, BNC, Magliabech. XX.23, s. XVI, f. 1r–113v
Linköping, SLB, Cod. Matematik 9, s. XVI, f. 2r–153v
† Milan, BT, 151, s. XV
Munich, BSB, Clm 26764, s. XVI, f. 67v (v. 34–35, without comm.)
Naples, BN, VIII C 53, s. XVI, f. 3r–115v
Rome, BANLC, 43 F 2 (Cors. 1287), s. XV, f. 2r–190v
Toledo, ABC, 98-18, s. XVIII, f. 1r–22r
Torino, BNU, F V 31 (931), s. XV, f. 1r–181r
Vatican, BAV, Urb. lat. 1393, s. XV, f. 1r–90r (Book I)
Vatican, BAV, Vat. lat. 5984, s. XV, f. 1r–173r
Vatican, BAV, Vat. lat. 5984, s. XV, f. 177r–314v (incomplete)
Venice, BNM, lat. VIII.66 (3437), s. XV, f. 1r–78r (Book I)
Venice, BNM, lat. VIII.67 (3438), s. XV, f. 1r–150r
Vienna, ÖNB, 3161, s. XV, f. 1r–65v (v. 5–50)
Vienna, ÖNB, 5209, s. XVI, f. 5r–71r (without comm.)
Vienna, ÖNB, 5258, s. XVI, f. 156v–158r (excerpt from v. 29, comm. only)
Warsaw, BN, Rps 6627 III, s. XVII, f. 334v–337v (without comm.)

C.3.17. Albertus de Brudzewo (?), *Circulum pro exitu geniture ab utero iuxta verbum Ptolomei 51 rectificare*

A commentary on *Centiloquium* v. 51, dealing with the rectification of nativities. The extant manuscripts suggest that this text originated at the University of Cracow in the 1480s (and certainly before 1488, when most of MS Vatican, BAV, Pal. lat. 1439 was copied). Rosińska (with a query) and Markowski ascribe it, very plausibly, to Albertus de Brudzewo, who was professor of astronomy and astrology at Cracow in the 1480s. In most copies, the text stands alone among astrological material, but in five of them, it is part of a larger text. In MSS Cracow, BJ, 1856; Karlsruhe, BLB, Rastatt 36 (f. 85r–85v); and Katowice, BS, R 51.II, it forms most of the first *canon* of a treatise on the interpretation of nativities in 21 *canones*, which is one of the several versions of a *Tractatus de scientia nativitatum* commonly taught at the University of Cracow in the late fifteenth century and sometimes associated with Martinus Bylica de Olkusz or with one Simon, perhaps Simon of Sierpc (on this treatise, see Rosińska, nos 1909–1910, and Markowski 1990, 117 and 189). In MSS Basel, UB, O.III.31 and Paris, BnF, n.a.l. 208, it occurs as the opening chapter of a treatise on the establishment of nativities, most of whose material derives from the *Canones concernentes nativitatem nati*, a text written as an appendix to Albertus de Brudzewo's judgement on a nativity of 6 April 1445, probably by Albertus himself or under his supervision (see MSS Paris, BnF, lat. 7350, f. 99r–135v; and Vatican, BAV, Pal. lat. 1439, f. 41r–66r, also Rosińska, no. 502, and Markowski 1990, 103 — Markowski attributes it to Johannes Virdung of Hassfurt). In the Basel MS, this treatise bears the title 'Liber continens canonem magistri Alberti de Pruzaff [Brudzewo] super nativitates et iudicia, coll<e>ctium (!) in universitate Cracoviensi' (full chapter index given from this manuscript by Birkenmajer 1924, 100–01). To these copies one should add the lost MS St Petersburg, BGP, Lat. F. XVII.74, where our text occurred on f. 127r ('De genitura. Circulum pro exitu geniture...'), apparently as part of a longer treatise (f. 104r–135) on nativities attributed to Albertus de Brudzewo (see MS entry). The genesis and affiliation of this text require more research.

Text '(Munich, BSB, Clm 51) Circulum pro exitu geniture ab utero iuxta verbum Ptolomei quinquagesimum primum rectificare. Sit tempus datum geniture cuiuspiam in anno, die, horaque, pro quo quidem tempore figura celi sit inventa — illum tota figura est rectificanda in tempore.'

Bibl. Rosińska 1984, no. 347; Markowski 1990, 9–10; M. Markowski, 'Repertorium bio-bibliographicum astronomorum Cracoviensium medii aevi: Adam Tussinus de Tarnovia — Andreas Grzymała de Posnania', *Studia Mediewistyczne* 27.1 (1990), 111–63: 121–22.

Modern ed. ---

EDS ---

MSS Basel, UB, O.III.31, s. XV, f. 5r–5v
Cracow, BJ, 1846, s. XVI, pp. 287–288
Cracow, BJ, 1856, s. XVI, pp. 279–280
Cracow, BJ, 1917, s. XV, f. 117r
Dresden, SLUB, N. 100, s. XV, f. 222r–222v
Karlsruhe, BLB, Rastatt 36, s. XV, f. 75r–75v
Karlsruhe, BLB, Rastatt 36, s. XV, f. 85r–85v
Katowice, BS, R 51.II, s. XVI, f. 2r–3r
Munich, BSB, Clm 51, s. XV–XVI, f. 69va–69vb
Paris, BnF, lat. 7350, s. XVI, f. 98r–98v
Paris, BnF, n.a.l. 208, s. XV, f. 2r–2v
† St Petersburg, BGP, Lat. F.XVII.74, s. XV, f. 127r
Vatican, BAV, Pal. lat. 1439, s. XV, f. 40r–40bisv

C.3.18. Michael Ruszoczky (?), ⟨*Commentum in Centiloquium*⟩

A commentary on *Centiloquium* v. 57–97 interspersed with a commentary on *Quadripartitum* II.5–8. This commentary is found in the personal notebook of Michael Ruszoczky, copied during the years 1492–1493 (1493 for the present text), when he was student at the University of Cracow. The same Michael Ruszoczky lectured on philosophy and geometry at the same university between 1496 and 1505 (see Wisłocki 1886, 32–33, 42, 46, 49, 52, 54–55, 67, 68, 70). The commentary on the *Quadripartitum* occurs between v. 96 and 97 and consists of four chapters on eclipses (II.5–8) preceded by an introduction (f. 174r–175r: 'Advertendum ergo est quod in prenosticatione eclipsis...'). Ptolemy's original texts are not included, but several phrases show that the source texts were Plato of Tivoli's translation for the *Centiloquium* (C.3.1.1) and Egidius de Tebaldis's translation for the *Quadripartitum* (C.2.2).

Text '(Cracow, BJ, 2703) Verbum Ptolomei LVII est de medelis unde dum voluerit medicus... (174r) Advertendum est quod in prenosticatione eclipsis quomodo (?) iuxta viam Ptolomei principaliter sunt investiganda. Primum est determinare in qua provincia vel civitate accident ille actus... Capitulum in quibus terris et provinciis continget efectus eclipsium. Iuxta intentionem Ptolomei efectus eclipsium trans... (?) in civitate concordante cum signo in quo est eclipsis — tales apparebunt.'

Bibl. Rosińska 1984, nos 111 and 2349; Markowski 1990, 31.

Modern ed. ---

EDS ---

MSS Cracow, BJ, 2703, s. XV, f. 169v–175r

C.3.19. Pseudo-Giovanni Pontano, *Expositio in verbum 51 Centiloquii Ptholomei*

A commentary on *Centiloquium* v. 51 written before 1506, on which date it was copied by Johannes Schöner in what is now MS Vienna, ÖNB, 5503 [Plate 22]. In both extant manuscripts, it is attributed to Giovanni Pontano, but this attribution is unlikely, as the text is wholly different from Pontano's commentary (see C.3.16). On the other hand, it is related to Albertus de Brudzewo's (?) *Circulum pro exitu geniture ab utero iuxta verbum Ptolomei 51 rectificare* (C.3.17), with which it shares several phrases. In MS Vienna, ÖNB, 5503, the text is followed by four tables on the duration of pregnancy ('Tabula more infantis in utero matris. Mora occidentalis, Luna super terram', 'Tabula more infantis in utero matris. Mora orientalis, Luna infra terram', 'Tabula mediorum motuum infra tempus more' and 'Tabula mediorum motuum in horis et minutis hore infra tempus more'). These tables, which are explicitly referred to in the text, are attributed to Giovanni Bianchini in notes added by Schöner in the upper margin of f. 111r–114r, and similar tables are indeed found in the second edition of Bianchini's *Tabulae astronomicae* (ed. Venice, Luceantonius Junta, 1526 [EDIT16: CNCE 5742], sig. 394v–397v), where they are attributed to Jacobus de Dondis of Padua (d. 1359). Bianchini's tables, however, offer different values, so that the tables of the present commentary probably derive from another source. The pregnancy tables are commonly found in fifteenth- and sixteenth-century manuscripts.

Text '(Vienna, ÖNB, 5503) Ioviani Pontani expositio in verbum 51 Centiloquii Ptholomei. Circulum geniture in exitu nati ab utero secundum verbum 51 sic extrahitur. Primum ad tempus datum inveniatur locus Solis cum quo erigatur celi figura ad quam imponatur locus Lune verus — maxime ubi Luna dignitatem ilechyam vendicaverit sibi. Τελόσ' (followed by tables f. 111r–114v).

Bibl. None. On the pregnancy tables, see J. Chabás, B. R. Goldstein, *The Astronomical Tables of Giovanni Bianchini*, Leiden-Boston, 2009, 129–32; and J. Chabás, B. R. Goldstein, *A Survey of European Astronomical Tables in the Late Middle Ages*, Leiden-Boston, 2012, 223–26.

Modern ed. ---

EDS ---

MSS Vienna, ÖNB, 5503, s. XVI, f. 110r–114v
Vienna, ÖNB, 10534, s. XVI, f. 197v

C.3.20. Matthias de Krajna, ⟨*Lectiones in Centiloquium*⟩

Lectures on the *Centiloquium* delivered by Matthias de Krajna at the University of Cracow in 1505–1506. According to the colophon of both manuscripts, the

lectures were completed in January 1506 and MS Cracow, BJ, 1839 attributes them to Matthias de Krajna ('sub egregio preceptore Mathia de Crayna'). This is confirmed by the *Liber diligentiarum* of the University of Cracow, where Matthias de Krajna is recorded to have lectured on the *Centiloquium* in the winter semester of 1505, i.e. 1505–1506 (Wisłocki 1886, 71: 'Mathias de Crayna Centum verba Ptolomei'). The source text is Plato of Tivoli's translation (C.3.1.1) and includes Abuiafar's commentary. In both manuscripts, the source text has been copied in the centre of the page and the lectures consist of interlinear and marginal glosses. These glosses are partly common to both manuscripts, but they also differ to a great extent (for example, the opening 'Dicitur etiam hic liber Liber fructuum...' in Cracow, BJ, 1839 is not found in Cracow, BJ, 1963). These glosses also include a large selection of the propositions in George of Trebizond's translation (B.1.7), introduced by 'Alia translatio'. Matthias de Krajna's own copy of the *Centiloquium* in George of Trebizond's translation is extant in MS Wroclaw, ZNO, 759, where it is dated 1505.

Text '(Cracow, BJ, 1839) Incipit Liber centum verborum Ptholomei cum comento Hali Rodham. **[TEXT]** Dixit Ptolomeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc seculo... **[COMM.]** Dicitur etiam hic liber fructuum quia, sicut fructus est quid nobilissimi arboris, sic hic liber est nobilissimus — et ego Deum precor ut te diligat quomniam perfecta est huius libri translatio decima septima die mensis Martii, 12 die mensis Gumedi anno Arabum quingentesimo tricesimo. Finis huius hora tercia 15 die Ianuarii 1506, continuatum sub egregio preceptore Mathia de Crayna.'

Bibl. Rosińska 1984, nos 561, 610 and 1802; Markowski 1990, 122; Kaliszuk/Pieniądz 2019, 496 (no. 426/2). On Matthias de Krajna (Maciej z Krajny), see Markowski 1990, 122–23; W. Wróbel, 'Maciej z Krajny I Buzun herbu Topór (ok. 1470 – ok. 1546)', *Studia Podlaskie* 18 (2009–2010), 279–96; Kaliszuk/Pieniądz 2019, 496–97 (no. 426).

Modern ed. ---

EDS ---

MSS Cracow, BJ, 1839, s. XVI, f. 54v–79r (with additional material f. 54r and 79v–81va)
Cracow, BJ, 1963, s. XVI, f. 125v–153r

C.3.21. Matthias de Krajna (?), ⟨*Commentum in verbum 60 Centiloquii*⟩

A commentary on v. 60 of the *Centiloquium*, on the critical days and periodicities of illnesses, extant in the same two manuscripts which also preserve Matthias de Krajna's lectures on the *Centiloquium* (C.3.20). The author is probably Matthias de Krajna and the present commentary may be part of his lectures or some addition to them. The commentary includes a hexadecagonal diagram similar to the one found in the *Glosa super 60 propositionem Centilogii Ptholomei* (C.3.2). MS Cracow, BJ, 1839 contains an additional note, which is omitted in the other manuscript.

Text '(Cracow, BJ, 1839) **[FIGURE]** Circulus concludens figuram quadratam octogonam seu octo laterum et sexdecim laterum. (82r) Declaratio precedentis figure. **[TEXT]** Quod Ptolomeus intendit primum de angulis quadrati conclusi intra circulum directum — nam figura sedecim laterum claudit in se nedum quadratum verum et octogonium. Hec in explanatione verbi 60 Pto<lomeus> do<cuit>. Telos. **[ADDITIONAL NOTE]** In corpore quidem egroto continue fit repugnantia morbi — hec omnia <in> figura infra scripta clare patebunt.'

Bibl. Rosińska 1984, nos 855 and 1803.

Modern ed. ---

EDS ---

MSS Cracow, BJ, 1839, s. XVI, f. 81v–82r
Cracow, BJ, 1963, s. XVI, f. 153r–153v

C.3.22. Alexander Paduanus, *Expositio super LX enuntiatum Ptolomei de figura XVI laterum*

A commentary on v. 60 of the *Centiloquium* in Giovanni Pontano's translation (B.1.9), written by one Alexander Paduanus, who describes himself as a 'philosopher and physician of Forli'. The only known manuscript dates from the sixteenth century and is probably Alexander Paduanus's autograph.

Text '(Cesena, BCM, Comunitativa 167.23) Alexandri Paduani philosophi ac medici Foroliviensis Expositio super LX enuntiatum Ptolomei de figura XVI laterum. **[TEXT]** Ptolomeus: Super aegrotis criticos dies inspice ac Lunae peragrationem in angulis figurae XVI laterum, uni enim eos angulos bene affectos inveneris, bene erit languenti, contra male, si eos afflictos inveneris. **[COMM.]** Adeo varie locuti sunt doctores exponendo hanc sententiam Ptolomei ut vix quid sibi vellit coniectari — et intercidentibus atque vacuis. Et haec pro expositione huius enuntiati breviter dicta sufficiant.'

Bibl. ---

Modern ed. ---

EDS ---

MSS Cesena, BCM, Comunitativa 167.23, s. XVI, f. 83r–86v

C.4. Other commentaries

C.4.1. Federico Bonaventura, *Annotationes in librum Ptolemaei de inerrantium syderum significationibus*

A commentary on Ptolemy's *Phaseis* (Book II) composed by Federico Bonaventura on the basis of his own translation of the text (A.4.1). Both the translation and the commentary were published by him in 1592.

Text '(ed. Urbino 1592) Annotationes in librum Ptolemaei de inerrantium syderum significationibus. Inerrantium stellarum libellum hunc inter Ptolemaei commentarios esse recipiendum nemo est qui dubitare possit — Deinde quod magis est hoc in loco pro occidunt Haedi, legendum oriuntur Haedi, nam et sic Columella et liber a Leonico translatus. Finis.'

Bibl. ---

Modern ed. ---

EDS Urbino, Bartholomeus Ragusius & Simon Ragusius, 1592, second part, sig. 65–120
Venice, Franciscus de Franciscis Senensis, 1594, sig. 65–120

MSS ---

C.4.2. Federico Commandino, *Claudii Ptholemei liber de Analemmate cum commentariis*

A commentary on Ptolemy's *Liber de Analemmate* (A.5.1) published by Federico Commandino in Rome in 1562. The commentary is interspersed with Ptolemy's original text, here given in a version revised by Commandino. MS Urbino, BU, Fondo del Comune – Busta 120 contains the draft or the preparatory work for the edition.

Text '(ed. Rome 1562) Claudii Ptholemei liber de Analemmate cum commentariis Federici Commandini Urbinatis. **[TEXT]** Consideranti mihi, Syre, ex angulis, qui circa gnomonis locum accipiuntur, qui rationali consentanei essent... (1v) **[COMM.]** Commentarius. Antiquos mathematicos de gnomonicis rationibus conscripsisse ex Vitruvio, Ptolemaeoque satis constat — ab ipso Analemmate exordium capientes' (followed by diagram).

Bibl. P. L. Rose, *The Italian Renaissance of Mathematics. Studies on Humanists and Mathematicians from Petrarch to Galileo*, Genève, 1975, 198–99; D. R. Edwards, *Ptolemy's 'Peri Analemmatos' – an Annotated Transcription of Moerbeke's Latin Translation and of the Surviving Greek Fragments, with an English Version and Commentary*, PhD dissertation, Brown University, 1984, 26–29; M. Losito, 'La gnomonica, il libro X dei Commentari di Daniele Barbaro e gli studi analemmatici di Federico Commandino', *Studi Veneziani* 18 (1989), 177–237: 219–37; R. Sinisgalli, S. Vastola, *L'Analemma di Tolomeo*, Firenze, 1992; A. Ciocci, 'I manoscritti urbinati di Federico Commandino: Una ricognizione delle Buste 120 e 121 della Biblioteca Universitaria di Urbino', *Bollettino di Storia delle Scienze Matematiche* 38 (2018), 237–69: 246–47; A. Ciocci, *Federico Commandino. Umanesimo matematico e rivoluzione scientifica*, Urbino, 2023, 96–109, 268–75 and 374.

Modern ed. None. Sinisgalli/Vastola have edited Ptolemy's original text from ed. Rome 1562, but without Commandino's commentary.

EDS Rome, Paulus Manutius Aldi, 1562, sig. 1r–48v

MSS Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 226r–244r

C.4.3. Johannes Praetorius, *Analemma Ptolemaei quomodo se in plano habeat*

Notes on Ptolemy's *Analemma* by Johannes Praetorius (1537–1616), instrument maker and professor of mathematics in Wittenberg (1571–1576) and Altdorf (1576–1616). The text is not attributed to Praetorius, but the only known MS is in his hand and looks like an author's copy. Praetorius had probably access to Ptolemy's text in Federico Commandino's edition of 1562 (C.4.2).

Text '(Schweinfurt, SB, Ha 9) Analemma Ptolemaei quomodo se in plano habeat. Instar Analemma Ptolemaei — secundum (?) percipiuntur.'

Bibl. Müller 1998, 45–46 and 358, no. 174 (entries by M. Folkerts).

Modern ed. ---

EDS ---

MSS Schweinfurt, SB, Ha 9 (H 180), s. XVI, f. 22r–25r

C.4.4. Maslama, ⟨*Note et additiones in Planispherium*⟩

Maslama's notes and additions to the *Planispherium* are part the *Planispherium* in both Latin translations. See A.6.1 and A.6.2.

C.4.5. Federico Commandino, *In Planisphaerium Ptolemaei commentarius*

A commentary on Ptolemy's *Planispherium* in Hermann of Carinthia's translation (A.6.1) published by Federico Commandino in Venice in 1558, together with his own edition of the original text. MS Urbino, BU, Fondo del Comune – Busta 120 contains the draft or the preparatory work for the edition.

Text '(ed. Venice 1558) Federici Commandini Urbinatis in Planisphaerium Ptolemaei commentarius. **[PREFACE]** In hoc libro rationem tradit Ptolemaeus, qua circulos omnes sphaerae caelestis in plano describere possimus... **[TEXT]** Figuram visam, quemadmodum appareat in proposito plano, describere — (19r) et aliud quodvis corpus. Cum sit possibile, o Syre, etc. Primum docet Ptolemaeus dato aequinoctiali circulo in plano proposito — pariter fecamus, unde stellarum loca certissima ratione deprehenduntur.'

Bibl. Delambre 1817, II, 456; A. Ciocci, 'I manoscritti urbinati di Federico Commandino: Una ricognizione delle Buste 120 e 121 della Biblioteca Universitaria di Urbino', *Bollettino di Storia delle Scienze Matematiche* 38 (2018), 237–69: 244–45; A. Ciocci, *Federico Commandino. Umanesimo matematico e rivoluzione scientifica*, Urbino, 2023, 83–96, 257–68 and 373–74.

Modern ed. No modern edition, but the text has been translated into English by C. Anagnostakis, *The Arabic Version of Ptolemy's Planisphaerium*, PhD dissertation, Yale University, 1985, 145–70.

EDS Venice, Paulus Manutius Aldi, 1558, second part, f. 2r–28r

MSS Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 150r–165r
Urbino, BU, Fondo del Comune – Busta 120 (28), s. XVI, f. 174r–175r (excerpts)

C.4.6. ⟨*Commentum in Iudicia*⟩

An anonymous commentary on Pseudo-Ptolemy's *Iudicia* (B.3) probably written shortly after 1138, a date given as an example of astronomical calculation in the past tense (MS London, BL, Cotton Appendix VI, f. 21va). In the London MS, the commentary immediately follows Pseudo-Ptolemy's *Iudicia* (f. 8rb–20va), here ascribed to Aristotle ('Liber iste est Aristotelis in scientia ipsius astronomie'), which explains the attribution to Aristotle in the explicit of the commentary. The St Petersburg MS contains only the first two chapters of the preface and its text differs quite significantly from that of the London MS. This fragmentary preface is however undoubtedly associated with the present commentary, for, in a passage omitted in the London MS, the author speaks of Ptolemy's love for his son ('Sciendum est tamen Ptholomeum habuisse quendam filium quem non modice diligebat', opening of the second chapter of the preface, f. 171vb), something which makes sense only in connection with the *Iudicia*, purportedly written by Ptolemy for his son Ariston, as also recalled in the opening of the commentary ('filium unius instruens Aristonem', London MS, f. 23vb). The beginning of the preface is also found in MS Cambridge, Fitzwilliam Museum, McClean 165, s. XII, f. 48r, and in Dominicus Gundisalvi's *De divisione philosophiae* (see Burnett), but these bear no obvious connections with the *Iudicia*.

Text '(London, BL, Cotton Appendix VI) Incipit commentum super premissa, scilicet predictum librum. (20va–23vb) **[PREFACE]** Artem artium, scilicet astronomiam, agredientibus dicendum est primo quid sit ipsa diffinitione, quid sit eius genus, que eius materia — et sciendum est idem esse dictum de Venere si in hac figura subiciatur. (23vb–29rb) **[TEXT]** Expositio ad litteram superioris tractatus. Ptolomeus, summus philosophus et excellentissimus Egyptiorum rex, necnon fide unitatis minutus (?), filium unius instruens Aristonem, cuius causa hoc opus incepit, ad litteram huius artis accedens, hanc divisionem facit. Signorum alia sunt masculina et alia feminina etc. Hec vero divisio potest vocari naturalis et artificialis — tam bonas quam malas querat. Hic terminatur astronomia Aristotelis cum expositione eius.'

Bibl. C. Burnett, 'A New Source for Dominicus Gundissalinus's Account of the Science of the Stars?', *AS* 47 (1990), 361–74: 364; D. Juste, 'Les textes astrologiques latins attribués à Aristote', *Micrologus* 21 (2013), 145–64: 152 n. 19; C. P. E. Nothaft, *Walcher of Malvern, De lunationibus and De Dracone. Study, Edition, Translation, and Commentary*, Turnhout, 2017, 66; C. P. E. Nothaft, '"Combustion Tables" in Twelfth-Century Latin Europe: A Preliminary Study', *Mediterranea. International Journal on the Transfer of Knowledge* 9 (2024), 107–64.

Modern ed. The first chapter of the preface is edited by Burnett, 367–68 (from MSS London, BL, Cotton Appendix VI and Cambridge, FM, McClean 165) and 368–69 (from MS St Petersburg, BAN, F. 8).

EDS ---

MSS London, BL, Cotton Appendix VI, s. XIII–XIV, f. 20va–29rb
St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 171va–172rb (fragment)

C.4.7. Conrad Heigarter, ⟨*Commentum in De cometis*⟩

A extensive commentary on Pseudo-Ptolemy's *De cometis* (B.4) composed by Conrad Heingarter for the duke of Bourbon Jean II. The unique manuscript was copied under Conrad's supervision and was meant to be the presentation copy to the duke. At least the first part of the commentary was completed on 3 January 1477 (cf. f. 148v: 'finita fuerunt hec commentaria in Bellapartica tertio die Ianuarii anno 1477° currente'). The commentary goes well beyond the comets and also deals with winds, rain, frost, thunder, earthquakes and the distances of the stars.

Text '(Paris, BnF, lat. 7432) **[TEXT]** Ptholomeus dixit quod stelle cum caudis sunt novem... **[CONRAD HEINGARTER'S COMM.]** Dixit Ptholemeus: Stelle cum caudis sunt novem etc. Loquamur nunc in speciali de cometibus sive stellis habentibus comas — (148v) Vale, ducum decus excellentissimum et valeant qui tuam dominationem valere desiderant. Finita fuerunt hec commentaria in Bellapartica tertio die Ianuarii anno 1477° currente. (149r) In precedentibus cometes quo ad assentias et eorum stationes declaravimus, nunc vero adventum eorum pronosticabimus, et primo ostendamus que proiectio radiorum mutua causet effectus... (149v) Scientia de ventis... Scientia de pluviis... (150v) De gelu et grandine... De tonitruis... De terremotu... De quantitatibus stellarum et earum distanciis a terra secundum Gebrum — **[TEXT]** ... in regibus et divitibus apparebit. **[CONRAD HEINGARTER'S COMM.]** ... et distanciis eorum a terra et climatum quoque distanciis ad presens sufficiant.'

Bibl. Préaud 1969, XV–XVI; M. Préaud, 'Les méthodes de travail d'un astrologue du XV^{e} siècle, Conrad Heingarter', *Position des Thèses de l'École des Chartes* (1969), 143–49: 145.

Modern ed. ---

EDS ---

MSS Paris, BnF, lat. 7432, s. XV, f. 146v–151r

C.4.8. John Holbroke, ⟨*Commentum in Dixerunt Ptholomeus et Hermes*⟩

A commentary on Pseudo-Ptolemy's *Dixerunt Ptholomeus et Hermes quod locus Lune...* (B.5) written by John Holbroke, master of Peterhouse, Cambridge, from 1418 to 1431. The commentary opens with the original text, which is reproduced in full. MS London, BL, Egerton 889 is John Holbroke's autograph.

Text '(London, BL, Egerton 889) (109r) **[TEXT]** Dixerunt Ptholomeus et Hermes quod locus Lune in quo erat Luna in hora in qua infunditur sperma est gradus ascendentis nativitatis — et hoc expertus fuit multociens. (109r–110r) **[COMM.]** Nota: Pro invenienda figura conceptionis nati omnibus aliis pretermissis, si hora coniunctionis vel preventionis fuerint due planete equales in virtute — Lune vero 9, hec sunt secundum Alkabitium. Quod H.'

Bibl. On John Holbroke, see C. P. E. Nothaft, 'John Holbroke, the Tables of Cambridge, and the "True Length of the Year": a Forgotten Episode in Fifteenth-Century Astronomy', *AHES* 72 (2018), 63–88.

Modern ed. ---

EDS ---

MSS London, BL, Egerton 889, s. XV, f. 109r–110r
Princeton, UL, Garrett 95, s. XV, f. 137r–139v

Appendix I:
Lost or fictitious works (siglum L)

L.1. *Almagest*, tr. Boethius — In a letter to Boethius (d. 525/6), the young Cassiodorus (d. 585) praises him for his translations of Greek texts, including 'Ptolemy's astronomy', i.e. probably the *Almagest*: 'Translationibus enim tuis Pythagoras musicus, **Ptolemaeus astronomus** leguntur Itali, Nicomachus arithmeticus, geometricus Euclides audiuntur Ausonii, Plato theologus, Aristoteles logicus quirinali voce disceptant, mechanicum etiam Archimedem latialem siculis reddidisti. Et quascumque disciplinas vel artes facunda Graecia per singulos viros edidit, te uno auctore patrio sermone roma suscepit' (Cassiodorus, *Variae* I.45, ed. T. Mommsen, *Monumenta Germaniae Historica*, *Auctores Antiquissimi*, XII, Berlin, 1894, 40). No traces of this translation survive.

L.2. *Almagest*, tr. Robert of Ketton and Hermann of Carinthia — In the preface to his translation of al-Kindī's *Iudicia astrorum* (*c.* 1140), Robert of Ketton, addressing his colleague Hermann of Carinthia, mentions their joint programme of translating Euclid, Theodosius and a book on proportions as a preparation for understanding (translating?) the *Almagest*, 'which is the main aim of our study': 'Quamquam post Euclidem Theodosii cosmometrie libroque proportionum libencius insudarem unde commodior ad **Almaiesti** — quo precipuum nostrum aspirat studium — pateret accessus, tamen, ne per meam segniciem nostra surdesceret amicitia, vestris nutibus nil preter equum postulantibus, mi Hermanne, nulli Latinorum huius nostri temporis astronomico secunde, penitus parere paratus, eum quem commodissimum et veracissimum inter astrologos iudicem vestra quam sepe notavit diligentia, voto vestro serviens transtuli, non minus amicicie quam pericie facultatibus innisus' (ed. C. Burnett, 'Al-Kindī on Judicial Astrology: "The Forty Chapters"', *ASP* 3 (1993), 77–117: 106). If Robert and/or Hermann translated the *Almagest*, no traces of it survive. It should be noted, however, that a note added to Hermann of Reichenau's *De mensura astrolabii* in the now lost MS Louvain, Bibliothèque de l'Université, 217 (51), s. XIII, f. 1r, says that Hermann of Carinthia translated the *Almagest* ('Hermannus iste astrologus fuit natus de Karinthia, non Contractus de Suevia, et transtulit Almag<esti>', cf. Haskins 1927, 53). A certain Hermannus is also credited as the translator of the Greek-Latin *Almagest* made in Sicily *c.* 1150 (A.1.1).

L.3. Alkindi [al-Kindī], *Commentary on the Almagest* — In the preface to his translation of Ibn al-Muthannā's *De motibus planetarum* (before 1151), Hugo Sanctelliensis says that he will also translate other works, including al-Kindī's

commentaries on the *Quadripartitum* and on the *Almagest*: 'Ne itaque antiquorum vestigiis penitus insistens a modernis prorsus videar dissentire, non per dialogum, ut apud Arabes habetur, verum more solito atque usitato hoc opus subiciam. Ac deinceps non solum **Quadripertiti atque Almaiezti ab Alkindio datam expositionem** sed etiam quoddam Aristotilis super totam artem sufficiens et generale commentum...' (ed. E. Millás Vendrell, *El comentario de Ibn al-Muṯannā' a las Tablas Astronómicas de al-Jwārizmī. Estudio y edición critica del texto latino en la version de Hugo Sanctallensis*, Madrid-Barcelona, 1963, 96). Neither of these commentaries has been found in Latin. Extant by al-Kindī in Arabic is a *Kitāb fī l-Ṣinā'a al-'uẓmā*, a paraphrase of the cosmological section of the *Almagest* (I.1–8), on which see F. Rosenthal, 'Al-Kindī and Ptolemy', in *Studi in orientalistici in onore di Giorgio Levi Della Vida*, Roma, 1956, II, 436–56; also Sezgin 1974–1979, VI, 153, no. 1. Ibn al-Nadīm lists, among al-Kindī's works, an 'epistle about the clarification of Ptolemy's statement at the beginning of his book *Almagest*' and another epistle on 'Ptolemy's Art of Cosmology' (see B. Dodge, *The Fihrist of al-Nadīm. A Tenth-Century Survey of Muslim Culture*, New York-London, 1970, I, 616 and 620).

L.4. Haly Abenrudian [ʿAlī ibn Riḍwān], *Commentary on the Almagest* — This work is referred to by Alfonsus Dyonisii of Lisbon, in his addition to Haly's commentary on the *Quadripartitum c.* 1340 (see C.2.2, Note 3): 'Et certius tradiderunt Ptholomeus Pheludianus et suus commentator **Haly Abrodian, qui commentavit Almagesti**. Et vidi illud commentum et Centiloquium et hunc librum Quadripartiti et plures libros...' (ed. from MSS Cambridge, UL, Kk 4.7, f. 88rb, and Chicago, NL, Ayer Collection 744, f. 227ra). Alfonsus claims to have seen that commentary on the *Almagest* and seems to imply that Haly also wrote a commentary on the *Centiloquium*, although this may simply correspond to Haly's (i.e., Abū Jaʿfar Aḥmad ibn Yūsuf's) commentary on the *Centiloquium*. No such commentaries seem to be extant in Arabic (see J. A. Seymore, *The Life of Ibn Riḍwān and His Commentary on Ptolemy's 'Tetrabiblos'*, PhD dissertation, Columbia University, 2001, 24–25). A commentary on the *Almagest* by one 'Haly', in all likelihood the same work, was also known and used by two other Latin authors, Thaddeus of Parma in the early fourteenth century and Mengotus Itelbrot *c.* 1385. Thaddeus refers to this commentary in his glosses to the *Almagest* in MS →Melbourne, SLV, RARES 091 P95A, cf. 'et [in] **Haly**, in commento huius libri ultimo, exponit hoc prohemium' (f. 1v, upper margin, line 5), 'sicut dicit **Haly**, iste rationes non sunt proprie demonstrationes sed probabilitates' (f. 2r, right margin, line 10) and 'Ad hoc dicit **Haly** quod Ptholomeus hic loquitur (?) quia nesciebat omnes partes terre habitabilis' (f. 13v, right margin, lines 24–26). Likewise, Mengotus Itelbrot, who copied and glossed the *Almagest* in MS →Vatican, BAV, Pal. lat. 1365, writes 'hec est sententia **Haly'** (f. 100r, lower margin, line 13, in the middle of a long gloss), 'Et **Haly**

dicit etiam…' (f. 136r, right margin, first gloss), 'hec tota littera (…) secundum **Haly** non est de littera Ptholomei nec in exemplari Arabico invenitur, ut dicit ipse **Haly**…' (f. 170r, right margin, second gloss), and 'et hoc **Haly** in commento frequentissime dicit super omnia capitula sequentia' (f. 176r, right margin, second gloss). I thank Stefan Georges for calling my attention to Thaddeus's and Mengotus's glosses. Charles Burnett had already noticed the 'Haly' glosses in the Melbourne MS, see 'Why Study Ptolemy's *Almagest*? The Evidence of MS Melbourne, State Library of Victoria, Sinclair 224', *La Trobe Journal* 81 (2008), 127–43: 129, 130 and 141 n. 13.

L.5. Nicolaus, *Commentary on the Almagest* — In his *Commentary on the Sentences*, Book II, Distinctio XVII, Articulus 4, dealing with the location of Paradise, Albertus Magnus (d. 1280) says that Avicenna, Nicolaus in his commentary on the *Almagest* and some others hold the view that the equator is best and most suited to human habitation: 'Et sine praejudicio loquendo videtur mihi quod sit in linea aequinoctiali versus orientem in comparatione ad nostram habitationem, tamen de lina aequinoctialis sunt opiniones. Avicenna enim et **Nicolaus in commento *Almagesti*** et quidam alii videntur velle quod locus ille optimus et paratissimus sit' (ed. A. Borgnet, *Alberti Magni opera omnia*, XXVII, Paris, 1894, p. 304). No commentary on the *Almagest* by one Nicolaus seems to be extant.

L.6. Regiomontanus, *Problemata Almagesti* — This text is known only through Regiomontanus's works and letters. Zinner (1990, 74) writes: 'By the end of 1463 he [Regiomontanus] had finished the first two books and had referred to the eighth, so that the arrangement of the work into thirteen books was planned at that time.' On this text, see E. Zinner, 'Einige Handschriften des Johann Regiomontan (aus Königsberg in Franken)', *Historischer Verein, Bamberg, Berichte* 100 (1964), 315–23: 322–23; Zinner 1990, 74–75, 104–05 and 218–19; Rigo 1991, 92; A. Rigo, 'Gli interessi astronomici del cardinal Bessarione', in *Bessarione e l'Umanesimo. Catalogo della mostra*, eds G. Fiaccadori, A. Cuna, A. Gatti, S. Ricci, Napoli, 1994, 105–17: 112; M. Malpangotto, *Regiomontano e il rinnovamento del sapere matematico e astronomico nel Quattrocento*, Bari, 2008, 205–07; M. Shank, 'Regiomontanus and Astronomical Controversy in the Background of Copernicus' in *Before Copernicus. The Culture and Contexts of Scientific Learning in the Fifteenth Century*, eds R. Feldhay, F. J. Ragep, Montreal-London-Chicago, 2017, 79–109: 92–93.

L.7. Anonymous (16th c.), *Commentary on the Almagest* — This commentary was contained in the now lost MS Florence, BNC, Magliabech. XI.31 (s. XVI^{in}), according to the old handwritten catalogue by G. Targioni-Tozzetti, *Fondo Magliabechiano. Inventario dei manoscritti*, IX, 221r–221v: 'In Ptolemaei Almagestum seu librum magnae compositionis commentaria Anon., cod. chart., 8°, scr. saec. XVI inc., autogr. M^{a}. Nella coperta è scritto "Comento sopra l'Almagesto di Tolomeo e sopra alla parola

comento e aggiuato da altra mano di fra Giuliano Carmelis [Giuliano Ristori?]". Nel fine della prima carta è scritto "Die 10 Martii 1536". Nella carta peiora o coperta di fondo e scritto da altra mano contemporanea "Lo studio generale fu posto in Bisa (!) nel 1309. Lo studio fu posto in Ferrara da Alberto II l'anno 1391".' See also Kristeller 1963–1992, I, 118. This MS was already reported missing in 1883, as I was informed by the librarian of the Biblioteca Nazionale Centrale in September 2016.

L.8. Alkindi [al-Kindī], ***Commentary on the Quadripartitum*** **—** See L.3 above.

L.9. ***Centiloquium*****, tr. William of Moerbeke (?) —** In his *Nativitas* (1280), Henry Bate of Mechelen used the *Karpos* in a translation from the Greek which does not appear to have survived and which is likely to have been made by William of Moerbeke. See Steel/Vanden Broecke 2018, 67 and 84–85, and C. Steel, 'Henricus Bate, William of Moerbeke and the *Centiloquium* of "Ptolemy"', *Przegląd Tomistyczny* 24 (2018), 459–72.

L.10. Haly Abenrudian [ʿAlī ibn Riḍwān], ***Commentary on the Centiloquium*** **—** See L.4 above.

L.11. ***Liber Ptolomaei de 12 annulis Veneris*** **—** This work on astral magic is listed in Johannes Trithemius's *Antipalus maleficiorum* (1508), I.3, no. 94 (ed. J.-P. Boudet, *Entre science et nigromance. Astrologie, divination et magie dans l'Occident médiéval (XII^e–XV^e siècle)*, Paris, 2006, 554): 'Et est liber Ptolomaei De 12 annulis Veneris, qui tractat de lapidibus insculpendis ad producendum mirabiles effectus, et incipit sic: Accipe Iaspidem viridum in die et hora'). See also Carmody 1956, 19 (no. 12); J.-P. Boudet, 'The Transmission of Arabic Magic in Europe (Middle Ages – Renaissance)', *Micrologus* 28 (2020), 143–65: 152 n. 30. This work does not seem to be extant.

Appendix II:
Rejected works (siglum R)

These works are arranged alphabetically by title. On this section, see Introduction, 3.2.

R.1. ***Alie sententie de patre Ptolomei et Dorothii cunctorum universorum*** — This chapter (inc. 'Sententia Ptholomei est que dicit aspicitur patribus in nativitatibus diei...') is the first of a group of five chapters appended in many manuscripts to Aomar's *De nativitatibus*, a popular text on nativities translated by John of Seville in the first half of the twelfth century. According to D. Pingree, 'The *Liber universus* of 'Umar Ibn al-Farrukhān al Ṭabarī', *Journal for the History of Arabic Science* 1 (1977), 8–12, the five added chapters are probably additions of the tenth century which were already present in John of Seville's Arabic model. Aomar's *De nativitatibus* is extant in over 40 manuscripts and at least four early printed editions.

R.2. ***Aliqua extracta de mensuratione celi et terre, de distantia Solis et Lune et planetarum secundum Ptolomeum*** — A chapter made of elementary considerations on the distances, sizes and revolution periods of the planets found in MS Vatican, BAV, Reg. lat. 1559, s. XIV–XV, f. 55r–55v: 'Secuntur aliqua extracta de mensuratione celi et terre, de distantia Solis et Lune et planetarum secundum Ptolomeum. Notandum est quod terra 20^{m} quatuor et 28^{o} (?) leucas de longo videtur secundum Ptolomei mensurationem continere. De spisso vero 6^{m} et 5^{c}. De terra autem usque ad Solem distat 5^{c} et 85... Sed vere secundum Ptolomeum tenendum est quod si homo cotidie 25 leucas... Unde si Adam a tempore sue creatoris tunc incepisset ascendere (?) (55v) usque ad annum incarnationis Christi $M.II^{c}.48^{m}$...'

R.3. ***Ars astrologie translata de Greco secundum Ptholomeum*** — This text occurs in MS Florence, BML, Strozzi 61, s. XII, f. 1r–35v ('Incipit ars astrologie translata de Greco secundum Ptholomeum. Doctrinales scripturi libros eos qui eadem discere volunt rectis initiis formati facilius pronuntiandi scientiam consequantur primum instituere debemus...'). It is an introduction to astrology in at least 38 chapters (the text appears to be incomplete, for the scribe stopped his copy in the middle of a line), undoubtedly translated from the Greek. The content bears no obvious connections with Ptolemy and some of the expounded doctrines, such as the decans and the houses, are absent from the *Tetrabiblos*. This text was briefly noticed by Haskins 1927, 222 n. 176.

R.4. ***Ars componendi astrolabium edita et inventa a Ptholomeo rege Egipti peritissimo astrorum*** — This text, found in MS →Paris, BnF, n.a.l. 625, f. 57ra–61va ('Incipit ars componendi astrolabium edita et inventa a Ptholomeo rege Egipti peritissimo astrorum. Rex astrorum Ptholomeus prudens in scientiis

— Explicit utilitas sive practica astrolabii quantum ad omnes eius operationes'), is not exactly attributed to Ptolemy but said to have been 'edited and discovered' by Ptolemy, whose name is referred to in the third person in the body of the text. E. Poulle tentatively attributed this text to Johannes Eligerus de Gondersleuen, see his 'L'astrolabe médiéval d'après les manuscrits de la Bibliothèque nationale', *Bibliothèque de l'Ecole des Chartes* 112 (1954), 81–103: 101, and 'Le quadrant nouveau médiéval, II', *Journal des Savants* (1964), 182–214: 211.

R.5. ***Astrolabium*** or ***Ptholomei Egyptii astrologi summi Astrolabium*** — This text, found in MS Florence, BR, 689, s. XVI, f. 41r–55v ('In nomine domini Ptholomei Egyptii astrologi summi astrolabium incipit. De nominibus instrumentorum in astrolabio. Nomina instrumenti sunt hec: primum est anulus, deinde suspensorium sive ansa...'), is a copy of the second part of Pseudo-Messahallah's *De compositione astrolabii* (f. 41r–46v), followed by a different text on the construction of the astrolabe (f. 46v–55v) also attributed to Ptolemy: 'Incipit compositio eiusdem et primo de compositione matris et limbi astrolabii. Accipe tabulam de quacumque volueris materia que ad hoc sit apta...'

R.6. ***Astronomicorum prestigiorum Thebidis secundum Ptolomeum et Hermetem*** — This is the title given to Thebit Bencora's *Liber prestigiorum* in MS →Avranches, BM, 235, s. XII, f. Iv, in a thirteenth-century table of contents (the text itself is no longer in the manuscript). The name of Ptolemy does not occur in the four other known copies. On this text, see Bohak/Burnett 2021, 68–75 (study) and 202–43 (edition and translation).

R.7. ***Bonum et notabile documentum super operationibus experimentorum traditum a Ptolomeo*** — This is a text on magical *experimenta* and exorcisms found in MS →Ghent, UB, 1021A, s. XVI, f. 107v–121r: 'Bonum et notabile documentum super operationibus experimentorum traditum a Ptolomeo cum cautela in huiusmodi operationibus observanda. Si quis aliquod experimentum probare voluerit, oportet ipsum custodire Lunam, tempus et horam et partes hore...'

R.8. ***Canones astrolabii Ptolomei*** — This text (inc. 'Quia (Cum) plurimi ob nimiam quandoque accurationem...' or 'Quia plurimi quandoque ob magnum scriptorum sententiam canones utilitatis astrolabii...') is attributed to Ptolemy in several manuscripts: →Cracow, BJ, 1859, s. XV, f. 27r–34v ('Et sic est finis canonum super astrolabium Ptolomei'); Cracow, BJ, 1865, s. XV, f. 160r–168r ('Et sic finis canonum astrolabii Ptolomei'); Cracow, BJ, 1927, s. XV, f. 83v–94r ('Et sic finis canonum astrolabii Ptolomei...'); →Dresden, SLUB, N. 100, s. XV, f. 11v–19v ('Et sic est finis canonum super astrolabium Ptholomei...'); Leipzig, UB, 1473, s. XV, f. 134r–146v ('Modus componendi planisperium Ptolomei'), but it corresponds to Cristannus de Prachaticz's *Usus astrolabii* (1407). Cristannus de Prachaticz wrote a

companion text, the *Compositio astrolabii*, which is also attributed to Ptolemy in one manuscript (see R.14). Critical edition of Cristannus's treatises by P. Hadrava and A. Hadravová, *Křišťan z Prachatic: Stavba a užití astrolábu*, Praha, 2001. See also P. Hadrava, A. Hadravová, 'Cristannus de Prachaticz's Treatises on the Astrolabe', in *Certissima signa. A Venice Conference on Greek and Latin Astronomical Texts*, ed. F. Pontani, Venezia, 2017, 295–312. This work is listed among Ptolemy's dubious works by Carmody 1956, 19 (no. 14).

R.9. ***Canones Ptolomei*** — A title added in the upper margin of MS →London, BL, Sloane 2030, s. XII, f. 88r, where the text *Proportiones competentes in astrorum industria*, which has nothing to do with Ptolemy, begins. It is likely that this title in fact refers to the text which immediately precedes in the manuscript, namely Pseudo-Ptolemy's *Centiloquium* (f. 87r–87v).

R.10. ***Canones Ptolomei super tabulas astronomie*** — This is the title given to the main set of canons ('canons Cb') of the Toledan tables (inc. 'Quoniam cuiusque actionis quantitatem...') in MSS Cambrai, BM, A. 932, s. XIII–XIV, f. 1r–19v ('Canones Ptolomei super tabulas astronomie'); Erfurt, UFB, Dep. Erf. CA 2º 38, s. XIII, f. 3ra–10va ('Canones Tholomei regis Egipti in motibus celestium corporum'); and →Parma, BP, 718–720, s. XIII, f. 441r–460r ('Explicit canonum liber Ptolomei'). See Pedersen 2002, II, 334.

Canones Tholomei regis Egipti in motibus celestium corporum — See *Canones Ptolomei super tabulas astronomie* (R.10).

Canonum liber Ptolomei — See *Canones Ptolomei super tabulas astronomie* (R.10).

Capitula libri horologii regis Ptolomei — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

Capitula Ptolomei de astrolabio — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

R.11. ***Centiloquium libellus Ptolomei principis astronomorum*** — Title given by mistake to Bethen's *Centiloquium* in MS Leipzig, UB, 1473, s. XV, f. 13r. The name 'Ptolomei' was corrected, apparently by the scribe, into 'Bethen'.

R.12. ***Centum quinquaginta propositiones in astronomia domini Ptholomei*** — This text, found in MS Prague, NKCR, III.C.2 (433), s. XV, f. 201ra–203vb ('Centum quinquaginta propositiones in astronomia domini Ptholomei — Explicit liber domini Ptolomei de propositionibus CL^{ta}...'), corresponds to the *Capitula Almansoris*.

Collecta super secundum librum Quadripartiti Ptolemaei — See *In secundum librum Quadripartiti* (R.21).

R.13. ***Compositio astrolabii*** — This text, listed among Ptolemy's dubious works by Carmody 1956, 19 (no. 15), with reference to MS ¬Oxford, BL, Digby 51, f. 18r–, corresponds to Hermann of Reichenau's *De mensura astrolabii* (f. 18r–21r). The work is nowhere ascribed to Ptolemy in this manuscript and the misattribution was probably induced by the catalogue entry (Macray 1883, 46), which reads: 'Hermanni Contracti Liber de compositione astrolabii, sive instrumenti a Ptolomaeo inventi.' Carmody also lists another work with the same title (no. 17), which corresponds to Pseudo-Ptolemy's *Liber de compositione universalis astrolabii* (B.2).

R.14. ***Compositio astrolabii Ptolomei Pheludiani astronomi celebris*** — Found in MS Vatican, BAV, Ott. lat. 1623, s. XV, f. 1r–14v ('Compositio astrolabii Ptolomei Pheludiani astronomi celebris. Quamquam de astrolabii compositione tam modernorum quam veterum dicta habeamus — Finit foeliciter compositio astrolabii'), this text corresponds to Cristannus de Prachaticz's *Compositio astrolabii*. See R.8.

Compositio astrolapsus secundum Ptolomeum — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

Compositio meteoroscopii Ptolemaei secundum mentem Iohannis de Monte Regio — See *Meteoroscopium* (R.45).

De dispositione orbis et temperiei — See *Liber introductorius Ptolomei ad Almagesti* (R.35).

R.15. ***De eclipsibus*** — This text, listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 21a), is an excerpt of the *Quadripartitum* found in MS Paris, BnF, lat. 7329, f. 60r–63r.

R.16. ***De electionibus*** — This text, listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 22), corresponds to an excerpt (unrelated to elections) of the *Quadripartitum* in MS Paris, BnF, lat. 7302, f. 133v–144v.

De figuris et ymaginibus septem planetarum et de utilitatibus eorum — See *Figure septem planetarum* (R.20).

R.17. ***De his que in celo aspiciuntur libellus*** — Attributed to Ptolemy in the two extant manuscripts, which bear exactly the same title, incipit and explicit (Vatican, BAV, Urb. lat. 1329, s. XV, f. 19v–42v, copied by Michael Foresius in 1458; and Milan, BA, P. 81 sup., s. XV^2, f. 67v–95r: 'Claudii Ptholomei De his que in celo aspiciuntur libellus incipit feliciter. Quoniam stelle non errantes eodem semper ex loco nasci et in eandem partem occidere inspiciuntur — hemisperium non manifestum qua reliqua manifestum vel quecumque qua quecumque. Finis'), this text is in fact a translation of Euclid's *Phaenomena*, of which all other known Latin translations date from the sixteenth century. See A. Ciocci, 'La versione Latina

dei *Phaenomena* di Euclide nell'*Urb. lat. 1329*', *Bolletino di Storia delle Scienze Matematiche* 40 (2020), 309–32.

R.18. ***De iudiciis*** **—** This text, listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 35), with reference to MS →Vienna, ÖNB, 2378, s. XIV, f. 15r–21r, consists of a collection of *iudicia* of the same kind as Pseudo-Ptolemy's Iudicia (B.3), but whose text is different and nowhere attributed to Ptolemy. Another MS of this text is Bernkastel-Kues, CSB, 207, s. XIV, f. 88vb-92rb, which bears no attribution to Ptolemy either.

De secretis secretorum Ptolomei **—** See *Figure septem planetarum* (R.20).

R.19. ***Epistula Ptolomei de astrolabio*** **—** Listed among Ptolemy's dubious works by Carmody 1956, 19 (no. 16), with reference to MS →Oxford, BL, Digby 51, f. 21r–, this text corresponds to the anonymous *De utilitatibus astrolabii* (21r–25v). The work is nowhere ascribed to Ptolemy in the Oxford manuscript and the misattribution was probably induced by Macray's catalogue entry, as is the case for the *Compositio astrolabii* (see R.13). The *De utilitatibus astrolabii* is however attributed to Ptolemy in several manuscripts (see R.52).

R.20. ***Figure septem planetarum*** **—** This text (inc. 'Figura Saturni quadrata est et sunt tria multiplicata per tria...'), dealing with planetary magic squares, is extant in at least 17 copies, where it is anonymous, except in two manuscripts, where it is attributed to Ptolemy: Milan, BA, P. 4 sup., s. XV, f. 148r–149r ('Incipit liber Tolomei de secretis secretorum eius, scilicet de figuris et ymaginibus septem planetarum et de utilitatibus eorum') and Vatican, BAV, Ott. lat. 1809, s. XV, f. 21r–26v ('Incipiunt quedam capitula de secretis secretorum Ptolomei, scilicet de figuris et ymaginibus 7 planetarum et de utilitatibus eorum'). On this text, see L. Thorndike, 'Traditional Medieval Tracts Concerning Engraved Astrological Images', in *Mélanges Auguste Pelzer*, Louvain, 1947, 217–73: 259–60; S. Page, *Magic in the Cloister. Pious Motives, Illicit Interests, and Occult Approaches to the Medieval Universe*, University Park, 2013, 76 and 189 n. 26; R. Comes, 'The Transmission of Azarquiel's Magic Squares in Latin Europe', in *Medieval Textual Cultures. Agents of Transmission, Translation and Transformation*, eds F. Wallis and R. Wisnovsky, Berlin-Boston, 2016, 159–98. An edition, based on MS Vienna, ÖNB, 5239, is available in J. Sesanio, 'Magic Squares for Daily Life', in Burnett/Hogendijk 2004, 714–34. The text was also incorporated into Pseudo-Messahallah's *Liber de angelis, annulis, karacteribus et ymaginibus planetarum* (MS Cambridge, UL, Dd 11.45, s. XV, f. 134v–139r), ed. and tr. J. G. Lidaka, '*The Book of Angels, Rings, Characters and Images of the Planets* Attributed to Osbern Bokenham', in *Conjuring Spirits: Texts and Traditions of Medieval Ritual Magic*, ed. C. Fanger, University Park, 1998, 32–75: 64–72. The other manuscripts are Cambridge, UL, Add. 4087, s. XV, f. 38r–40v; Copenhagen, KB, Gl. kgl. S.

1658 4to, s. XV, f. 236v–240v; →Cracow, BJ, 793, s. XV, f. 60r–61r; →Erfurt, UFB, Dep. Erf. CA 4º 361, s. XIV, f. 59ra–59vb; →Leipzig, UB, 1472, s. XV, f. 140v–142v; →London, BL, Harley 2404, s. XV, pp. 60–63; Marburg, UB, 18, s. XV, f. 50r–53r; Naples, BN, VIII C 41, s. XV, f. 77r–78v; Oxford, CCC, 125, s. XIV, f. 76r–77v; →Paris, BnF, lat. 7016A, s. XV, f. 151r–152r; →Paris, BnF, lat. 7349, s. XV, f. 18r–20v; Paris, BnF, lat. 7442, s. XV, f. 195r–197v; Prague, NKCR, adlig. 14.H.208 (2764), s. XVI, f. 9r–11v; →Vienna, ÖNB, 5239, s. XIV, f. 147va–149ra; Wolfenbüttel, HAB, 17.8 Aug. 4º (3098), s. XVI, f. 186r–190r. This text is listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 23a) and 21 (no. 45: 'Secreta secretorum Ptolomei').

R.21. ***In secundum librum Quadripartiti*** — This work, preserved in MS Cracow, BJ, 2489, s. XVI, pp. 1–20 ('In nomine domini, amen. Bene sufficit nobis id quod universaliter locuti sumus super his... Hic est liber secundus parcialis Quadripartiti Ptholomei Pheludiani astrologorum principis in quo de significationibus generalibus... (3) Circa quem textum etc. moveo hanc questionem utrum etc. Questio sit vera ad primam partem est sententia Ptholomei in principio Quadripartiti et in prohemio libri Centum verborum — que in notabilibus dicta sunt, facile dissolvuntur. Et hec sunt dicta. Collecta anno 1520 per magistrum Nicolaum de Shadek et lecta die Aprilis eodem anno per magistrandum Petrum de Varadino, etc.'), is named *In secundum librum Quadripartiti* by both Rosińska 1984, no. 1756, and Kaliszuk/Pieniądz 2019, 637–38 (no. 505/2), and *Collecta super secundum librum Quadripartiti Ptolemaei* by Markowski 1990, 152–53. This is not, however, a commentary on *Quadripartitum* II, but the answers to questions about mundane astrology, of which only the beginning (pp. 1–3) is related to the *Quadripartitum*. According to the colophon, Nicolaus de Szadek 'read' the text in April 1520 for making Petrus de Varadino a master of arts. Nicolaus de Szadek was professor of astrology at the University of Cracow, where he lectured on Ptolemy (*Quadripartitum* and/or *Centiloquium*) at least from 1518 to 1523 (see Wisłocki 1886, 134, 136, 139, 148, 158, 160 and 162). Petrus de Varadino did receive his master in 1520 (see J. Muczkowski, *Statuta nec non liber promotionum philosophorum ordinis in universitate studiorum Jagellonica ab anno 1402 ad an. 1849*, Kraków, 1849, 169). A similar astrological document for the promotion of a student (unnamed) to the master's degree in 1511 is found in the Ptolemaic MS →Cracow, BJ, 1839, f. 156r–163v ('Pro magistrando in die Aristotelis anno domini 1511...').

Introductiones Ptholomei in Almagesti — See *Liber introductorius Ptolomei ad Almagesti* (R.35).

R.22. ***Introductorium Cracoviense in Centiloquium Claudii Ptholomaei*** — This text, so labelled by Rosińska 1984, no. 541, and Markowski 1990, 31, is found in MS →Cracow, BJ, 1839, f. 80r and 79v. This is not a commentary on the

Centiloquium, but a text on the rectification of nativities based on several authors, including Ptolemy's *Quadripartitum* and *Centiloquium*.

Introductorium Ptolomaei — See *Liber radiorum sive introductorium Ptolomaei* (R.43).

R.23. ***Ioannis de Monteregio super usu et constructione astrolabii armillaris Ptolemaei enarratio*** — This is the title given to Regiomontanus's *Canones astrolabii armillaris* by Johannes Schöner in his edition of the text in 1544 (ed. Nürnberg, Johannes Montanus et Ulricus Neuberus, 1544, sig. 21v–22v (VD16 M 6569)). Schöner was probably inspired by the incipit 'Astrolabium armillare quo Ptolemaeus plurimum usus est…', for Regiomontanus's own manuscript (Vienna, ÖNB, 5496, s. XV, f. 35r–36v) does not attribute the text or the instrument to Ptolemy, and neither do the other known copies (Florence, BNC, Magliabech. XI.144, s. XV, f. 106r–106v; and Paris, BnF, lat. 5787, f. 213v–214v). The text that follows in ed. Nürnberg 1544 (sig. 23r–26v) is entitled *Ioannis Schoneri in fabricam et usum magnae regulae Ptolemaei annotationes*.

R.24. ***Isagogicon astrologiae Ptolomaei*** — This work is a translation (from Arabic via Hebrew) of Geminus of Rhodes's *Elementa astronomie* by Abrahamus de Balmes (d. 1523). Only the beginning of this translation is extant in MS Milan, BA, P. 167 sup., s. XVI, f. 45r–45v and 47r–47v ('Incipit Isagogicon astrologie Ptolomaei interprete Abramo de Balmes. Orbis signorum partitur in duodecim partes quarum unaquaeque graece vocatur…'). See R. B. Todd, 'Geminus and the Ps.-Proclan *Sphaera*', in *Catalogus Translationum et Commentariorum. Mediaeval and Renaissance Latin Translations and Commentaries*, VIII, ed. V. Brown, Washington, DC, 2003, 7–48: 18–19. On the Hebrew version, see Y. T. Langermann, 'From My Notebooks. Studies on the Hebrew Geminos: The Chapter on Weather Signs', *Aleph* 10 (2010), 357-95. See also *Liber introductorius Ptolomei ad Almagesti* (R.35).

R.25. ***Iudicia aspectuum planetarum inventa in libro Quadripartiti Ptholomei*** — This work is said to be part of Ptolemy's *Quadripartitum* in MS Dublin, TC, 397, s. XV, f. 45r–49r ('Iudicia aspectuum planetarum inventa in libro Quadripartiti Pth<olome>i et primo sextilis aspectus Lune ad Solem. Fortunata dies ad agenda negotia — Explicit liber iudiciorum secundum Quadripartitum Ptholomei de aspectibus Lunae ad Solem et ad caeteros planetas ad diversa opera efficienda et vitanda que quottidie nobis accident'), but it is unrelated to the *Quadripartitum* and corresponds instead to Prophatius Judeus's *De aspectibus Lune ad alios planetas*, a text extant in at least seven other manuscripts, including the Ptolemaic MSS →Oxford, BL, Ashmole 346, s. XV–XVI, f. 39v–42v; →Paris, BnF, n.a.l. 625, s. XIV, f. 13va–15va; →Naples, BN, VIII C 45, s. XV, f. 117v–121r; and →Vienna, ÖNB, 5251, s. XV, f. 147r–150r). See also R.56.

R.26. ***Iudicia Ptolomei (de Luna existente in duodecim signis)*** — This text, found in MSS London, WL, 507, s. XIV, f. 76vb ('Iudicia Tholomei regis Egipti', title added by a later hand) and Milan, BA, E. 114 sup., s. XV, f. 44v (explicit: 'Iudicia Ptholomei de Luna existente in duodecim signis, videlicet quid debet homo facere et cavere'), corresponds to the popular *zodiologium* in 36 verses 'Nil capiti facias Aries cum Luna refulget...', extant in over 80 manuscripts, where it is typically anonymous.

R.27. ***Libellus brevis et utilis de nativitatibus ex quadripartita doctrina sapientis Ptholomei excerptus*** — This text (inc. 'Scientia nativitatum ex que ex figura nativitatis veris sibi et suis eventus futuros pronosticat. Habita enim figuratione celi...'), found in MS →Wroclaw, ZNO, 764, f. 303r–336r, corresponds to the *Tractatus de scientia nativitatum*, on which see C.3.17. None of the other nine manuscripts known to me connects this text to Ptolemy.

R.28. ***Liber astronomie secundum Ptolemeum*** — This text is found in a manuscript that was destroyed in WWII, MS Dresden, SLUB, Db. 91, s. XV, f. 57v–61v, for which the catalogue entry reads: 'Liber astronomiae secundum Ptolemeum — Expliciunt secreta astronomiae et questiones magistrorum Montis Pesselani cum eorum secretis' (F. Schnorr von Carolsfeld, *Katalog der Handschriften der Sächsischen Landesbibliothek zu Dresden*, I, Dresden, 1979 [first published Leipzig, 1882], 307). It is not clear what this text is about, and neither the title nor the explicit occurs in other manuscripts known to me.

R.29. ***Liber de circulis spere et ipsorum ad invicem distantium et magnitudine et Solis et Lune ac V errantis stellis cursu et ordine Tholomei*** — Found in MS →Parma, BP, 718–720, s. XIII, f. 285r–291r, this text corresponds to Book VIII of Martianus Capella's *De nuptiis Mercurii et Philologiae*.

R.30. ***Liber de electionibus secundum Haly et Tholomeum*** — This text on elections is attributed to Haly and Ptolemy in MS Edinburgh, RO, Crawford Collection Cr. 3.4, s. XV, f. 2v–6r ('Cum omnis scientia vel omnis ars propter utilitatem — in alia domo. Explicit liber de electionibus secundum Haly et Tholomeum'). It is also found anonymous in MSS Dublin, TC, 369, s. XV, f. 152v–154r (same incipit and explicit 'in aliqua domo') and →London, BL, Sloane 332, s. XV, f. 59r–70v (same incipit). The latter copy preserves a longer version in 42 chapters based on several authorities, including 'Haly' (probably Haly Embrani), Ptolemy, Alkindi, Aomar and Gergis.

Liber de labore vel scientia astrolapsus et horologii interpretatus de Arabigo in Latinum a rege Tolomeo — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

R.31. ***Liber de officio astrolabii*** **—** This text, listed among Ptolemy's dubious works by Carmody 1956, 19 (no. 18), with reference to MS →Oxford, BL, Canon. Misc. 61, corresponds to Robert of Chester's *De officio astrolabii* (f. 12r–22v), which is nowhere attributed to Ptolemy.

R.32. ***Liber de proprietatibus signorum secundum Tholomeum*** **—** This is the title given to Hermes/Enoch's *Liber imaginum signorum* in MS New Haven, YU-BRBML, Beinecke 1059, s. XIV, f. 141r–143r.

Liber domini Ptolomei de propositionibus centum quinquaginta **—** See *Centum quinquaginta propositiones in astronomia domini Ptholomei* (R.12).

R.33. ***Liber electionum Meseallach et Ptholemei*** **—** This is the title given to Zael's *De electionibus* as published by Petrus Liechtenstein in Venice in 1509 (EDIT16: CNCE 058448). See also D. Pingree, 'Māshā'allāh', in *Dictionary of Scientific Biography*, IX, New York, 1974, 159–62: 162 (no. 26).

R.34. ***Liber introductorius iudiciorum apotelesmaticon Tholomes*** **—** This is the title given to the *Liber novem iudicum* in MS →Cambrai, BM, 955 (853), s. XIII, f. 1ra–40vb. This item is listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 32). See also *Liber novem iudicum Tolomei* (R.37).

Liber introductorius Ptolomei ad artem spericam **—** See *Liber introductorius Ptolomei ad Almagesti* (R.35).

Liber introductorius Ptolomei ad librum suum nominatum Almagesti **—** See *Liber introductorius Ptolomei ad Almagesti* (R.35).

R.35. ***Liber introductorius Ptolomei ad Almagesti*** **—** This is the title given to Geminus of Rhodes's *Elementa astronomie* (first century BC) in Gerard of Cremona's translation in most manuscripts: →Bernkastel-Kues, CSB, 208, s. XIV, f. 42va–53vb ('Incipit liber introductorius in Almagesti Ptholemei. Dividitur orbis signorum in 12 partes... Explicit abbrevatio introductorii libri Ptolomei ad Almagesti'); Florence, BML, Fiesole 168, s. XIII–XIV, f. 112r–118r ('Explicit quod abbreviatum est de libro introductorii Ptolomei ad librum nominatum Almagesti'); Paris, BM, 3635, s. XIV, f. 123ra–137rb ('Sperica Ptho<lomei> ... Explicit liber motus orbis et nature eius editione Messehalle'); →Paris, BnF, lat. 16198, s. XIV, f. 166r–177v ('Explicit quod abreviatum est de libro introductorii Ptolomei ad librum nominatum Almagesti'); →St Petersburg, BAN, F. 8 (XXA^{b}/III^{I}), s. XIII, f. 25ra–35va ('Explicit quod abrevatum est de libro introductorii Ptholomei ad librum suum nominatum Almagesti'). In MS →London, BL, Harley 625, s. XIV, f. Iv–1r, the same text is referred to as 'libellus qui intitulatur Tholomeus de dispositione orbis et temperiei' and 'ex quodam libello qui intitulatur Ptholomeus de dispositione orbis et temperiei...'. The

text bears neither title nor attribution in MSS →Bergamo, BCAM, MA 571, s. XIV, pp. 181b–208b, and →Dresden, SLUB, Db. 87, s. XIII, f. 72r–102v, but an added table of contents in the latter manuscript (f. 268v) reads: 'Introductiones Ptholomei in Almagesti'. The attribution to Ptolemy can be traced back to at least Gerard of Cremona, for the list of his translations compiled by his students or colleagues refers to the text as 'Liber introductorius Ptolomei ad artem spericam' (see C. Burnett, 'The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century', *Science in Context* 14 (2001), 249–88: 278 (no. 23) (reprinted in Burnett 2009, VII)). It is in fact very likely that Geminus's text was already attributed to Ptolemy in the (lost) Arabic model, for Abrahamus de Balmes's translation bears the title *Isagogicon astrologiae Ptolomaei* (R.24). Gerard's translation is unpublished, except for sections of chs 1 and 3, edited from the Dresden and Florence MSS by K. Manitius, *Gemini Elementa Astronomiae*, Leipzig, 1898, 285–89. On Geminus's text, see J. Evans, J. L. Berggren, *Geminos's Introduction to the Phenomena. A Translation and Study of a Hellenistic Survey of Astronomy*, Princeton, 2006; and on its history, R. B. Todd, 'Geminus and the Ps.-Proclan *Sphaera*', in *Catalogus Translationum et Commentariorum. Mediaeval and Renaissance Latin Translations and Commentaries*, VIII, ed. V. Brown, Washington, DC, 2003, 7–48 (16–17 for Gerard's translation).

R.36. *Liber iudicialis Tholomei* — This text, found in two Ptolemaic manuscrits (→Erfurt, UFB, Dep. Erf. CA 4º 377. s. XIV, f. 51r–60v; and →Munich, BSB, Clm 588, s. XIV, f. 220ra–233rb) with attribution to Ptolemy in the explicit, corresponds to Zael's *Liber iudiciorum* (here including the *Introductorium* and the *De interrogationibus*) in a different version from John of Seville's standard translation. This text is listed among Ptolemy's dubious works by Carmody 1956, 20 (no. 36: 'Liber iudiciorum').

Liber iudiciorum secundum Quadripartitum Ptholomei de aspectibus Lunae ad Solem et ad caeteros planetas ad diversa opera efficienda et vitanda que quottidie nobis accident — See *Iudicia aspectuum planetarum inventa in libro Quadripartiti Ptholomei* (R.25).

R.37. *Liber novem iudicum Tolomei* — This is the title given to the *Liber novem iudicum* in the table of contents of →Vatican, BAV, Vat. lat. 6766, s. XIII, f. 49vb. See also *Liber introductorius iudiciorum apotelesmaticon Tholomes* (R.34).

R.38. *Liber Ptholomei de nativitatibus hominum* — This is the title given to Albumasar's (?) *Liber similitudinum* in two manuscripts (Edinburgh, RO, Crawford Collection Cr. 3.23, s. XIV, f. 18r–23v, and London, RCP, 384, s. XV–XVI, f. 108r–110v). The *Liber similitudinum* is extant in over 30 manuscripts, where it is generally anonymous or attributed to Albumasar or Albandini. The attribution to Ptolemy may stem from the fact that some of the material is said to derive from

Ptolemy (cf. 'Et dicit Ptolomeus...'). Although it shares the same title and subject matter (a description of the native of the twelve signs), its content differs from Pseudo-Ptolemy's *Liber de nativitatibus hominum* (B.11). On the *Liber similitudinum*, see Juste 2007, 143–46. An edition of this text, from MS Berlin, SBPK, germ. fol. 642, s. XV, f. 37r–62v, which offers a bilingual, German-Latin version, is available in N. H. Palmer, 'Die lateinisch-deutsche 'Berliner Nativitätprognostik'', in *Licht der Natur. Medizin in Fachliteratur und Dichtung. Festschrift für Gundolf Keil zum 60. Geburtstag*, eds J. Domes, W. G. Gerabek, B. D. Haage, C. Weisser, V. Zimmermann, Göppingen, 1994, pp. 251–91.

R.39. ***Liber Ptholomei de significationibus 7 planetarum vel Caput vel Cauda Draconis per 12 domos zodiaci*** **—** This is the title given to Gergis's *De significatione septem planetarum in domibus* in two manuscripts: Berlin, SBPK, lat. fol. 629, s. XIV, f. 8v–12r, and London, RCP, 384, s. XV–XVI, f. 102r–103v.

R.40. ***Liber Ptolomey*** **—** This is the title given to an astronomical text on eclipses in MS →Parma, BP, 718–720, s. XIII, f. 460r–464v ('Liber Ptolomey. In eclipsi tam Solis quam Lune cum argumento Solis...'). This eclipse text corresponds to §§287–348 of the anonymous twelfth-century *Theorica planetarum* (inc. 'Investigantibus astronomiam primo sciendum...') edited by F. S. Pedersen, 'A Twelfth-Century Planetary Theorica in the Manner of the London Tables', *CIMAGL* 60 (1990), 199–318 (on this *Theorica*, see also Nothaft 2018, 161–62). §§287–92 are also found among the Toledan tables in a number of manuscripts (see Pedersen 2002, II, 527–28). In none of these is the text attributed to Ptolemy.

R.41. ***Liber Ptolomei de lapidibus pretiosis et sigillis eorum*** **—** This text corresponds to Azareus's *De lapidibus*, but it is attributed to Ptolemy in at least five manuscripts: →Cracow, BJ, 793, s. XV, f. 139v–140v ('Incipit Ptholomei de lapidibus et sigillis... Hec etiam sunt de Ptholomeo extracta'); Florence, BR, 125, s. XIV, f. 53rb–54ra ('Incipit liber Ptolomei de lapidibus pretiosis et sigillis eorum'); Oxford, BL, Ashmole 1471, s. XIV, f. 64v–65v ('Incipit liber Ptholomei de lapidibus pretiosis et sigillis eorum'); Prague, NKCR, adlig. 14.H.208 (2764), s. XVI, f. 9r–9v ('Liber Ptholomei de lapidibus preciosis et sigillis eorum'); →Vienna, ÖNB, 5311, s. XIV, f. 35rb–35vb ('Liber Ptolomei de lapidibus pretiosis et sigillis eorum'). The confusion probably stems from the incipit, which implies that the text was addressed to King Ptolemy by King Azareus: 'Regi Ptholomeo rex Azareus de lapidibus...'. On this text, see L. Thorndike, 'Traditional Medieval Tracts Concerning Engraved Astrological Images', in *Mélanges Auguste Pelzer*, Louvain, 1947, 217–73: 260–61; D. Pingree, 'The Diffusion of Arabic Magical Texts in Western Europe', in Scarcia Amoretti 1987, 57–102: 66–67; Weill-Parot 2002, 115–16; K. Mesler, 'The Medieval Lapidary of Techel/Azareus on Engraved Stones and Its Jewish Appropriations',

Aleph 14 (2014), 75–143. This work is also listed among Ptolemy's dubious works by Carmody 1956, 21 (no. 37).

R.42. ***Liber Ptolomei de Yspania qui dictus est Argerzi introductorius*** — This is the title given to the *Liber Arzachelis introductorius ad librum iudiciorum Arabum* in MSS ¬Basel, UB, F.II.10, s. XIV, f. 143ra–148rb, and Zurich, ZB, B 244, s. XV, f. 45ra–51vb. In the seven other manuscripts known to me, this text is not attributed to Ptolemy.

R.43. ***Liber radiorum sive Introductorium Ptolomei*** — Excerpts of this work are found in an astrological text extant in MS Milan, BA, N. 217 sup., s. XIV, f. 1r–5v, cf. rubrics f. 2r: 'Quedam extracta de libro radiorum sive introductorio Ptholomei ex prima parte que est (!)', f. 3r: 'Extracta de dicto introductorio ex secunda parte que est de nativitatibus', and f. 5r: 'Note tertie partis que est de iudiciis.' As a result, this section of the manuscript was reported as 'Extracta ex libro radiorum sive introductorio Ptholomaei. Extracta ex eiusdem libri introductorii parte que est de nativitatibus' in the table of contents (f. Iv) drawn up in 1603 by the librarian of the Ambrosiana, Antonio Olgiato, and, subsequently, as 'Ptolemaei Liber radiorum (extracta)' by Gabriel 1968, 282 (no. 680), and as 'Anonimo. Extracta de libro radiorum sive introductorio Ptolomaei' by Agrimi 1976, 117–18 (no. CXXXVII). This text (inc. 'Dixerunt antiqui annum solarem esse dierum 365 et quarte diei minus quinta parte unius hore...') in fact derives from Pseudo-John of Seville's *Epitome totius astrologie* (which is probably the text referred to in the above rubrics) and other sources. The attribution to Ptolemy may stem from the fact that the *Epitome totius astrologie* is made of an introduction ('Ysagoge') followed by four books called 'Quadripartitum'.

R.44. ***Liber Tholomei regis Egipti quem composuit Ihesus filius Sydrac*** — This text, offering an extensive description of men and women born in the twelve signs, is found in a manuscript copied by the French astrologer Richard Roussat (*fl.* 1525–1555), Vatican, BAV, Reg. lat. 1198, s. XVI, f. 1r–71r ('Incipit liber Tholomei regis Egipti quem composuit Ihesus filius Sydrac qui renovavit sapientiam de corde suo. In principio fecit Deus celum et terram et Ipse fecit duodecim signa in quibus currunt subscripte stelle que ostendunt homini — Explicit liber Tholomei. Deo gratias. R<ichard> R<oussat>'). The double attribution to Ptolemy and Sydrac is puzzling, but Sydrac (or Zydrac) is the alleged author of a book of nativities, dealing with the same topic (description of men and women born in the twelve signs) but wholy different in wording, found in MS ¬Ghent, UB, 5, s. XV, f. 145r–152v: 'Incipit liber Zydrac de nativitatibus. In nomine domini nostri Ihesu Christi incipit libellus ostendens inclinationes et conditiones hominum a signo vite ut ab ascendente nativitatis — Explicit Sydrac de nativitatibus et hoc in generali.' The

Liber Tholomei regis Egipti quem composuit Ihesus filius Sydrac in fact belongs to the posterior tradition of the *Alchandreana* and appears to be very close, even identical in places, to the *Liber Alchandrini philosophi* extant in MS Paris, BnF, lat. 10271, s. XV, f. 9r–52v (on which see Juste 2007, 289 n. 268). The names Ptolemy and Sydrac, which otherwise appear nowhere in connection with the *Alchandreana*, were probably added by Richard Roussat, who also appears to have coined the name 'Arcandam' in his thorough reworking of the posterior *Alchandreana* known as the *Book of Arcandam*, which he published in Paris in 1542: 'Arcandam doctor peritissimus ac non vulgaris astrologus, de veritatibus, et praedictionibus astrologiae, et praecipue nativitatum seu fatalis dispositionis, vel diei cuiuscunque nati, nuper per Magistrum Richardum Roussat, canonicum Lingoniensem, artium et medicinae professorem...' (on this reworking, see Juste 2007, 289–90).

Liber Tolomei de secretis secretorum — See *Figure septem planetarum* (R.20).

R.45. ***Meteoroscopium*** or ***Claudii Ptolomei meteoroscopium*** — MS Vatican, BAV, Vat. lat. 3688, s. XVI, f. 10r–30r, preserves a text on Ptolemy's meteoroscope 'in Jacob Ziegler's rendering' ('Claudii Ptolomei meteoroscopium ex Iacobi Ziegleri Landaui traditione'). This text consists of two parts dealing respectively with the construction of the instrument in 9 chapters (10r–19r: 'Si quis fuit in claris scriptoribus iniquo natus tempore ut cuius ingenii et operum nobilitas a nullis celebraretur...') and with its uses in 13 'canons' (19v–30r: 'De canonica operatione. Canon primus. De zodiaci conformatione secundum capitalia ipsius signa...'). This is followed by 19 additional chapters on the instrument, or a variant thereof, by Ziegler (33r–51r: 'De progymnasmatis geographicis Iacobo Zieglero Landauo auctore. Quiescere apud Claudii Ptolemei meteoroscopium potuimus, nisi voluptas foret nobis in sphaeralibus...'). Ziegler addressed his work to Cardinal Alessandro Farnese, bishop of Ostia (1524–1534), who would be elected Pope Paul III in 1534. Vatican, BAV, Vat. lat. 3688 is likely to be Ziegler's presentation copy to Alessandro Farnese, but another copy is apparently extant in MS St Petersburg, RNB, lat. Q.IV.12 (see Kristeller 1963–1992, V, 187, whose description reads: 'f. 1. In Claudii Ptolomei... Cosmographie enarrationem Jacobi Ziegleri ex Landau Bavarie invitatio, an opening lecture, inc. Quando ego in gymnasium vestrum concessi. 4vb. In instrumenti meteoroscopii fabricam et usum prologus Jacobi Ziegleri, inc. Si unquam fuit scriptorum. 9. De usu instrumenti, in 19 chs.'). There is also a 'Compositio meteoroscopii Ptolemaei secundum mentem Iohannis de Monte Regio [Regiomontanus]' copied by Philipp Imser in 1549 in MS Basel, UB, O.III.27, s. XVI, f. 149v– (see Thorndike 1923–1958, V, 372–73; Kristeller 1963–1992, V, 56). A copy of the same work was once to be found in MS Hamburg, Staats- und Universitätsbibl., Cod. math. 8º 545, pp. 1–21, a manuscript destroyed

in WWII (see Kristeller 1963–1992, III, 554; G. Oestmann, *Schicksalsdeutung und Astronomie. Der Himmelsglobus des Johannes Stoeffler von 1493*, Stuttgart, 1993, 87). Ptolemy is indeed the author of a treatise on the meteoroscope (A.8) and there are various traces of the instrument in the Islamic Middle Ages (R. Lorch, 'The "Meteoroscope" Attributed to Theon of Alexandria. A Study of the Arabic Sources', in *I. International Congress on the History of Turkish-Islamic Science and Technology. İstanbul Teknik Üniversitesi, 14–18 September 1981. Proceedings*, Istanbul, 1981, I, 33–38) and in the European Renaissance (J. D. North, 'Werner, Apian, Blagrave and the Meteoroscope', *BJHS* 3 (1966), 57–65). Ziegler's text is in fact no more than an attempt to reconstruct Ptolemy's instrument, for it refers to Ptolemy in the third person and mentions several scholars who came after him, including Regiomontanus (f. 10v: 'ex hominum memoria pene abierat, ut cuius intentionem post mille quadringentos prope annos Ioannes de Regio Monte primus foecit'). It is likely that Ziegler had access to Regiomontanus's notes on the instrument, just like Philipp Imser in the above-mentioned text.

R.46. ***Miliaria Ptholomei de magnitudinibus corporum celestium et distantiis orbium sunt hec redacta ad Theutonica miliaria secundum quod 60 agri faciunt miliare...*** — A short text on celestial sizes and distances found in MS San Marino (Ca), HL, HM 83, s. XV, f. 21r–21v.

Modus componendi planisperium Ptolomei — See *Canones astrolabii Ptolomei* (R.8).

R.47. ***Nomina et virtutes herbarum secretarum septem planetarum secundum Ptholomeum astrologum*** — This is a planetary herbal found in MS Vatican, BAV, Vat. lat. 11423, s. XV, f. 1r–33v: 'Incipiunt nomina et virtutes herbarum secretarum septem planetarum secundum Ptholomeum astrologum. De prima herba, Solis, quae paristella vocatur, sic formatur. Nam semper oritur in locis incultis et solidis — florum facit aliquas spinas acutas et pungentes.' The text was translated from a lost Greek original at an unknown date, but probably not before the thirteenth century. See A. Pazzini, *Virtù delle erbe secondo i sette pianeti: l'erbario detto di Tolomeo e quelli de altri astrologi*, Milano, 1959, 127–61 (with an Italian translation, 166–225), and C. Burnett, 'Late Antique and Medieval Latin Translations of Greek Texts on Astrology and Magic', in *The Occult Sciences in Byzantium*, eds P. Magdalino, M. Mavroudi, Genève, 2006, 325–59: 331–32.

R.48. ***Organum parallacticum Ptolomei*** — This text, found in MS Dresden, SLUB, C. 1, s. XVI, f. 1v–49r ('De fabrica et usu organi parallactici Ptolomaei. Organum Ptolomaei parallacticum ab ipso libro quinto Magnae constructionis cap. 12...'), consists of lectures delivered by the mathematician Melchior Jöstel (1559–1611) at the University of Wittenberg in 1595 on the construction and uses of

the instrument described in *Almagest* V.12. The lectures go much further, however, including discussions of Copernicus, Tycho Brahe and others.

R.49. *Organum Ptolomei* — The 'organum Ptolomei' designates different kinds of sundials in fifteenth- and sixteenth-century manuscripts, including: (1) 'Incipit compositio organi Ptolomei. Organum Ptolomei ita fit: Fiat in lamina circulus ABCD...' (→Vienna, ÖNB, 5418, s. XV, f. 180r–183r; →Vienna, ÖNB, 5303, s. XV, f. 253v–255v; New Haven, Yale University – Cushing/Whitney Medical Library, Medical History Library, 25 Vault, s. XV, f. 92r–93v; Munich, BSB, Clm 24105, s. XVI, f. 67va–68vb); (2) 'Organum Ptholomei. Quadratum horarium pro multis regionibus diversorum latitudinum, facies hoc modo: Dispone de ligno solido...' (→Vienna, ÖNB, 5258, s. XV, f. 80r–81v; similar incipit in Florence, BML, Plut. 29.43, s. XV, f. 56r–57r); (3) 'Organum Ptolomei cuius adminiculo longitudines ac latitudines locorum in superficie terrestri inquiruntur si recte mentem opificis auguror in hunc ferme modum componitur...' (→Florence, BNC, Magliabech. XI.144, s. XV, f. 107r–108r; →Paris, BnF, lat. 5787, s. XVI, f. 215r–216v); (4) 'Compositio organi Ptolomei. Describe circulum ad planum ABCD divisum 24 partes...' (→Brussels, BR, 2962–2978, s. XV–XVI, f. 29r–29v); (5) 'Incipit compositio quadrantis organo Ptolomei similis reverendi magistri Iohannis de Kunisperg [Regiomontanus] astronomi et poete laureati. Describe quartam partem circuli...' (New Haven, Yale University – Cushing/Whitney Medical Library, Medical Historical Library, 24 Vault (*olim* Melk 367), s. XV–XVI, pp. 255–58); (6) 'Prefatio in compositionem organi Ptolomei. Organum Ptholomei ad multas provincias in canone proprio...' (same MS, pp. 267–72); (7) 'Organum Ptholomei. Horalogium ad omnes provincias capitulum primum. Primo fiat circulus ABCD duabus dyametris...' (same MS, pp. 446–48); and (8) Andreas Stiborius's lectures on the instrument in Vienna *c.* 1504: 'Canones magistri Andree Stiborii Boii super instrumento universali quod organum Ptholomei vocant. Organum Ptholomei est instrumentum universale...' (Munich, BSB, Clm 19689, s. XVI, f. 317r–322v; Munich, BSB, Clm 24103, s. XVI, f. 35r–38r; Munich, BSB, Clm 24105, f. 85r–88r). The origin of the attribution to Ptolemy is, however, unclear. See E. Zinner, *Astronomische Instrumente des 11. bis 18. Jahrhunderts*, München, 1956, 112–17 and 131–34, and C. Eagleton, *Monks, Manuscripts and Sundials. The Navicula in Medieval England*, Leiden-Boston, 2010, 3–4 and 93–119 (and 269–78 for an edition and translation of the first version listed above).

R.50. *Ptolomeus parvus* — This title is referred to in two sections of MS Florence, BNC, Conv. Soppr. C.VIII.1830, s. XVII–XVIII, f. 34r–57v: 'Libellus de planetarum coniunctionibus et aspectibus et de iudicio directionum ex Ptolomeo parvo', and 58r–70r: 'Eruditiones ex Ptolemeo parvo.' These references are in fact to Andrea

Argoli's *Ptolemaeus parvus in genethliacis iunctus arabibus* (ed. Lyon, ex typographia Pauli Frambotti, 1652 and 1659), a treatise on nativities in three books drawing from various sources and bearing no obvious connection with Ptolemaic astrological texts.

R.51. *Quadripartitum*, tr. Simon Bredon — Simon Bredon's glosses to the *Quadripartitum* in Egidius de Tebaldis's translation found in the margins of MS →Oxford, BL, Digby 179, f. 3r–166r, under the title 'Incipit liber quadripartiti Ptholomei Pheludiensis de iudiciis astrorum secundum aliam translacionem', were thought to be Simon Bredon's own translation or recension of the *Quadripartitum* by C. H. Talbot, 'Simon Bredon (*c.* 1300–1372): Physician, Mathematician and Astronomer', *BJHS* 1 (1962), 19–30: 28, and K. Snedegar, 'The Works and Days of Simon Bredon, a Fourteenth-Century Astronomer and Physician', in Nauta/Vanderjagt 1999, 285–309: 295 (following earlier suggestions by Steinschneider 1904, 76 (no. 109); Björnbo 1909, 100 (no. 18); and Haskins 1927, 111). These glosses are in fact a mere copy of the *Quadripartitum* in Plato of Tivoli's translation (A.2.1), preceded by a very short introduction by Simon Bredon, as noted by Vuillemin-Diem/Steel 2015, 3–4.

R.52. *Regulae ex libris Ptolomei regis de compositione astrolapsus* — This is the title given to the *De utilitatibus astrolabii*, from the 'old corpus' on the astrolabe put together from Arabic sources in Catalonia *c.* 1000, in MSS London, BL, Addit. 17808, s. XI, f. 73v–79r, and Paris, BnF, lat. 14065, s. XI–XII, f. 48v–51r. The *De utilitatibus astrolabii* is also attributed to Ptolemy in MSS →Avranches, BM, 235, s. XII, f. 58r–66r ('Capitula Ptolomei de astrolabio' and 'Regulae Ptolomei super astrolabium'); Los Angeles, J. Paul Getty Museum, Ludwig XII.5, s. XII, f. 101v–103r ('Spera Tholomei vel astralabium ipsius'); and →Paris, BM, 3642, s. XIII, f. 61ra–63ra ('Tractatus Tholomei de astrolapsu'). In the other (over 70) manuscripts, the text is anonymous or sometimes attributed to Gerbert, probably Gerbert of Aurillac. The attribution to Ptolemy most probably derives from the source of the *De utilitatibus astrolabii*, namely the *Sententie astrolabii*, whose Part C is entitled 'Capitula libri horologii regis Ptolomei' in most manuscripts (ed. J. M. Millàs Vallicrosa, *Assaig d'història de les idees físiques i matemàtiques a la Catalunya medieval*, Barcelona, 1931, 280–88). The *Sententie astrolabii* as a whole is said to have been translated from Arabic into Latin by King Ptolemy in MS Seville, BCC, 5-2-16, s. XII, f. 1r–8r ('Incipit liber de labore vel scientia astrolapsus et horologii interpretatus de Arabigo in Latinum a rege Tolomeo'). Another component of the old astrolabe corpus is the *Compositio astrolapsus secundum Ptolomeum*, inc. 'Iubet rex Ptolomeus bene politam fieri tabulam…' (ed. Millàs Vallicrosa, *Assaig*, 322–24). According to Charles Burnett ('King Ptolemy and Alchandreus the Philosopher: The Earliest Texts on the Astrolabe and Arabic Astrology at Fleury, Micy and Chartres', *AS* 55 (1998), 329–68: 341 (reprinted in Burnett 2009, I)), the attribution of these

texts to Ptolemy would rather be 'the responsibility of later redactors and scribes, and not to the original translator/compiler of the Latin texts from Arabic sources.'

Regulae Ptolomei super astrolabium — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

Spera Tholomei vel astralabium ipsius — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

Sperica Ptholomei — See *Liber introductorius Ptolomei ad Almagesti* (R.35).

R.53. *Tabulae de equatione planetarum* ('Ptolomaeus. *Tabulae de equatione planetarum'*) — This is the title given by Mazzatinti (*Inventari dei manoscritti delle biblioteche d'Italia*, XXIV, Firenze, 1916, 78) to item no. 3 in the now lost MS Pisa, Biblioteca Cathariniana, 69, s. XIV. The contents and date of this manuscript suggest that this title refers to a section of the Toledan tables, whose canons are sometimes attributed to Ptolemy (see R.10). Mazzatinti describes the contents of the manuscript as follows: 1. Tabulae astronomicae; 2. Magister Campanus. Equatio planetarum; 3. Ptolomaeus. Tabulae de equatione planetarum; 4. Profacius. Tractatus quadrationis; 5. Tabulae astronomicae et quaedam astronomica et chronologica; 6. Tractatus de eclisatione Solis et Lunae; 7. Canones astronomiae; 8. [Iohannes Cremonensis]. Theorica planetarum; 9. Duae tabulae astronomicae et quaedam adnotationes ad eas pertinentes. Benjamin and Toomer write that this MS 'has long been lost, according to a letter from the librarian' (Benjamin/Toomer 1971, 120).

R.54. *Tota virtus astronomie Ptolomei* — This short text is found in MS Solothurn, Zentralbibliothek, Cod. S I 167, s. XIV, f. 58v–59r ('Ab Ade usque ad nativitatem Christi sunt anni... Si vis scire in quo signo sit Capud Draconis, annos ab inicio divide per XIX — cum dimidio nichil remanet. Explicit compendiose tota virtus astronomie Ptolomei'). The title, as given in the explicit, denotes a summary of Ptolemy's astronomy rather than a work attributed to Ptolemy. This elementary text provides rules for calculating the position of the planets for any time according to the system of the years of the world (on which see D. Juste, 'Neither Observation nor Astronomical Tables: An Alternative Way of Computing the Planetary Longitudes in the Early Western Middle Ages', in Burnett/Hogendijk 2004, 181–222). The year 1353 is mentioned ('ab incarnatione domini sunt anni 1353') and the text is preceded by a *Tota virtus compendiose de iudiciis urinarum per fratrem Iohannem de Lympurg* (f. 57v–58v). The similarity between both titles makes this Johannes of Limburg (*fl.* 1396, Rottweil) a likely candidate for the authorship.

R.55. *Tractatus de constellationibus hominum et mulierum secundum Ptolomeum philosophum* — This is the title given to the *Liber destinationum* (inc. 'Homo qui natus fuerit in signo Aquarii...'), a text describing the men and women

born in the twelve signs, in MS Oxford, BL, Douce 45, s. XV, f. 96r–. This text is otherwise transmitted by at least 18 manuscripts, either anonymously or under the name of Aristotle. On this text, see D. Juste, 'Les textes astrologiques latins attribués à Aristote', *Micrologus* 21 (2013), 145–64: 159–60.

R.56. ***Tractatus Ptolomei cum commento Hali de aspectibus Lune ad planetas*** — This text is found in MS Oxford, BL, Canon. Misc. 517, s. XV, f. 49va–52rb, where it is attributed to both Ptolemy and his commentator Haly ('Incipit tractatus Ptolomei cum commento Hali de aspectibus Lune ad planetas, et primo de Saturno. Oppositio Lune cum Saturno secundum Tholomeum. Si volueris facere aliquid quod non sit durabile — si sit Mercurius conveniente loco. Explicit tractatus de aspectibus Lune ad omnes planetas secundum Ptholomeum et secundum Halim cum laude Dei'). This, however, appears to be mistake, for no such text is found in the *Quadripartitum* or in Haly Abenrudian's commentary (C.2.2). It is likely to be related instead to Prophatius Judeus's *De aspectibus Lune ad alios planetas*, which deals with the same topic (elections from the aspects of the moon with the other planets) and of which one manuscript likewise claims that the text derives from Ptolemy's *Quadripartitum*. See *Iudicia aspectuum planetarum inventa in libro Quadripartiti Ptholomei* (R.25). This text is listed among Ptolemy's dubious works by Carmody 1956, 19 (no. 13).

Tractatus Tholomei de astrolapsu — See *Regulae ex libris Ptolomei regis de compositione astrolapsus* (R.52).

Part II

Early printed editions

Venice, Erhardus Ratdolt, 1484

Title: --- **Last page:** 'Impressum in Venetiis per Erhardum Ratdolt de Augusta die 15 mensis Januarii 1484.'

***Ptolemaica* (a_2r–[f_6]r, [f_6]r–[f_6]v and [f_6]v–[i_4]r)**, preceded by a horoscopic diagram summarising the 12 houses (a_1v).

Bibl. GW M36411; L. Hain, *Repertorium bibliographicum in quo libri omnes ab arte typographica inventa usque ad annum MD typis expressi ordine alphabetico vel simpliciter enumerantur vel adcuratius recensentur opera*, II.2, Stuttgart-Paris, 1838, 174 (no. *13543); A. C. Klebs, 'Incunabula Scientifica et Medica', *Osiris* 4 (1938), 1–359: 266 (no. 814.1).

Exemplar Munich, Bayerische Staatsbibliothek, 4 Inc.c.a. 378

a_2r–[f_6]r 'Liber quadripartiti Ptolomaei, id est quattuor tractatuum in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus, cuius in primo tractatu sunt 24 capitula. Incipit capitulum primum in collectione intellectus scientiae iudiciorum astrorum. Prohoemium. Rerum, Iesure, in quibus est pronosticabilis scientiae stellarum profectio magnas et precipuas duas esse deprehendimus — hoc in loco huic libro finem i<m>ponere non incongruum existimamus. Explicit liber 4 Ptholomei in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus.'
= **Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1)**. I, a_2r–[b_5]r; II, [b_5]r–[c_7]v; III, [c_7]v–[e_5]v; IV, [e_6]r–[f_6]r.

[f_6]r–[f_6]v 'Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradus ascendentis et super eum 4 angulos — et quod collectum fuerit erit locus radiationis equate.'
= **Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6)**.

[f_6]v–[i_4]r 'Incipit liber centum verborum Ptholomei. Dixit Ptolomeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc seculo... Verbum primum in cognitione eorum quae verum iudicium perhibent. Sciencia stellarum ex te et ex illis est... ([f_7]r) Expositio Haly super primo verbo. Quod dixit Ptholomeus, ex te et illis, significat quod qui res futuras scire desiderat... Et aliis modis multis dixit Ptholomeus: Mundanorum mutatio ad hoc et ad aliud corporum supercelestium... Doctrina stellarum ex te que ex illis est. Nec est doctrina in eis ut propter hand formam — et ego Deum praecor ut te diligat, quoniam perfecta est huius libri translatio 17 die mensis Marcii, 12 die mensis Gumedi secundi anno Arabum 530. Liber Ptholomei quattuor tractatuum cum centiloquio eiusdem Ptholomei et commento Haly feliciter finit.'
= **Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. Plato of Tivoli (C.3.1.1)**, with v. 1 also given in the 'Mundanorum' version (C.3.1.3) and in Adelard of Bath's translation (B.1.1) (= 'threefold' version).

Venice, Bonetus Locatellus, 1493

Title: ---. **Last page**: 'Venetiis per Bonetum Locatellum impensis nobilis viri Octaviani Scoti civis Modoeciensis, MCCCCLXXXXIII, 13 kalendas Ianuariae.'

Astrology: table of contents ([I]r); Hieronymus Salius Faventinus, dedicatory letter to Domenico Maria Novara ('Dominico Marie de Anuaria (!) Ferrariensi') ([I]v–[II]r); chapter index ([II]v–1v); ***Ptolemaica* (2r–106v and 107r–116v)**; Hermes, *Centiloquium* (117r–118r); Hermes, *Liber de stellis beibeniis* (118r–119r); Bethen, *Centiloquium* (119r–120r); Bethen, *De horis planetarum* (120r–120r); *Capitula Almansoris* (120v–122r); Zael, *Liber iudiciorum* (122v–142v); Messahallah, *Liber receptionis* (143r–148r); Messahallah, *Epistola de rebus eclipsium* (148r–149r); Messahallah, *De revolutionibus annorum mundi* (149r–152r).

Bibl. GW M36394; L. Hain, *Repertorium bibliographicum in quo libri omnes ab arte typographica inventa usque ad annum MD typis expressi ordine alphabetico vel simpliciter enumerantur vel adcuratius recensentur opera*, II.2, Stuttgart-Paris, 1838, 174 (no. *13544); A. C. Klebs, 'Incunabula Scientifica et Medica', *Osiris* 4 (1938), 1–359: 266 (no. 814.2).

Exemplar Munich, Bayerische Staatsbibliothek, 2 Inc.c.a. 2907 a

2r–106v 'Liber quadripartiti Ptholemei, id est quatuor tractatuum in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus cum commento Haly Heben Rodan, cuius in primo tractatu sunt viginti quatuor capitula. Dixit Egidius de Tebaldis Lombardus de civitate Parmensi: Scire et intelligere gloriosum est quia omnis scientia est a Deo… (2r) Tractatus primus glose Haly Heben Rodan super prima parte libri Quadripartiti Ptholemei Pheludiani. Verba que dixit sapientissimus Ptholemeus in arte iudiciorum… (3r) Capitulum primum primi tractatus libri quadripartiti Ptholemei in collectione intellectus scientie iudiciorum astrorum. Prohemium. [PLATO OF TIVOLI'S LEMMA] Rerum, Iesure, in quibus est pronosticabilis scientie stellarum perfectio magnas et precipuas duas esse deprehendimus. [EGIDIUS DE TEBALDIS'S LEMMA] Res quibus perficiuntur pronostications, Missori, maiores et nobiliores sunt due — (104v) posuit in hoc libro sunt regule et radices quibus ars ista componitur. Explicit liber 4 Ptho<lemei> in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus. Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradum ascendentis — (105r) erit locus radiationis equate. De tribus nativitatibus. Volo in hoc loco tibi dare exemplum trium nativitatum ut melius intendas quicquid locuti sumus in eis, et prima est nativitas mea — hec sunt que tibi glosavi in quibus studium et mentem apponas et Deus te dirigat in viam rectam. Expliciunt examinationes trium nativitatum. Volui probare utrum auctor iste iudicaret secundum nonam spheram vel secundum octavam et inveni loca planetarum que ponit in figura sue nativitatis quod ipsa fuit annis 4 perfectis 986, 10 mensibus, 15 die Ianuarii, qua die equavi planetas secundum tabulas Mach<linienses> et inveni sic. Finis.' = **Haly Abenrudian, *Glosa super Quadripartito Tholomei* (C.2.2)**, with each lemma also given in Plato of Tivoli's translation (A.2.1). Translator's

preface, 2r; Haly's preface, 2r–3r; I, 3r–29v; II, 29v–53r; III, 53r–85r; IV, 85r–104v; Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6), 104v–105r (see below); Haly's appendix, 105r–106v; additional note, 106v.

104v–105r 'Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradum ascendentis — erit locus radiationis equate.'
= **Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6)**, as part of the preceding text.

107r–116v 'Incipit liber centum verborum Ptholemei cum commento Haly. Dixit Ptholemeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc seculo... Verbum primum in cognitione eorum que verum iudicium perhibent. Scientia stellarum ex te et ex illis est. Astrologus autem non debet dicere rem specialiter sed universaliter... Expositio Haly super primo verbo. Quod dixit Ptho<lemeus>, ex te et illis, significat quod qui res futuras scire desiderat — et ego Deum precor ut te diligat, quoniam perfecta est huius libri translatio 17 die mensis Marcii, 12 die mensis Gumedi secundi anno Arabum 530. Liber Ptholemei quattuor tractatuum cum Centiloquio eiusdem et commento Haly feliciter finit.'
= **Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. Plato of Tivoli (C.3.1.1)**, with v. 1 also given in the 'Mundanorum' version (C.3.1.3) and in Adelard of Bath's translation (B.1.1) (= 'threefold' version).

Venice, Johannes Hamman, 1496

'Epytoma Ioannis de Monte Regio in Almagestum Ptolomei.' **Last page:** 'Explicit Magne compositionis astronomicon epitoma Iohannis de Regio Monte, impensis non minimis curaque et emendatione non mediocri virorum prestantium Casparis Grossch et Stephani Roemer, opera quoque et arte impressionis mirifica viri solertis Iohannis Hamman de Landoia, dictus Hertzog, felicibus astris expletum. Anno a prima rerum etherearum circuitione 8480, Sole in parte sextadecima Virginis gradiente, in hemispherio Veneto, anno salutis 1496 currente, pridie calen<darum> Septembris, Venetiis, Maximiliano Romanorum rege primo faustissime imperante.'

Ptolemaica (single text).

Note A facsimile of this edition was published by F. Schmeidler, *Joannis Regiomontani opera collectanea. Faksimiledrucke von neun Schriften Regiomontans und einer von ihm gedruckten Schrift seines Lehrers Purbach*, Osnabrück, 1972, 55–274.

Bibl. GW M37523; L. Hain, *Repertorium bibliographicum in quo libri omnes ab arte typographica inventa usque ad annum MD typis expressi ordine alphabetico vel simpliciter enumerantur vel adcuratius recensentur opera*, II.2, Stuttgart-Paris, 1838, 207–08 (no. *13806); A. C. Klebs, 'Incunabula Scientifica et Medica', *Osiris* 4 (1938), 1–359: 281 (no. 841.1).

Exemplar Munich, Bayerische Staatsbibliothek, 2 Inc.c.a. 3386 a

a_2r–[p_7]v ‘Cl<audii> Ptolemei Alexandrini astronomorum principis ισ μεγαλιν σινταξιν, id est in Magnam constructionem Georgii Purbachii, eiusque discipuli Iohannis de Regio Monte Astronomicon epitoma. Reverendissimo in Christo patri ac domino domino Bessarioni episcopo Tusculano, sancte Romane Ecclesie cardinali, patriarche Constantinopolitano, Iohannes Germanus de Regio Monte se offert devotissimum. Admiranti mihi sepenumero vel potius graviter et inique serenti tam raros esse etate nostra optimarum… (a_4r) Liber primus universalis ambitus totius terre ad totum celum considerationes que necessario presupponende erant premittit, theoremata quoque que ad sphericas demonstrationes premittuntur enarrat, chordarum atque et arcuum tradit doctrinam, ascensiones demum recte sphere investigat. Prefatio. Recte profecto meo iudicio nobiliores philosophi scire distinxerunt inter theoricam philosophie et practicam partem — Quod postremo hoc in theoreumate explorare et cepto labori modum statuere decrevimus. Finis.’
= **Johannes Regiomontanus, *Epitome Almagesti* (C.1.21)**. Preface, a_2r–a_3r; I, a_4r–b_2r; II, b_2v–c_2v; III, c_3r–[d_6]r; IV, [d_6]r–e_4v; V, e_4v–[f_8]v; VI, g_1r–h_4v; VII, [h_5]r–i_1r; VIII, i_1v–k_1r; IX, k_1v–l_2r; X, l_2v–m_4r; XI, m_4v–n_4r; XII, n_4r–o_3r; XIII, o_3v–[p_7]v.

Venice, Simon Bivilaqua, 1502

‘Preclarissimi viri Georgii Valle Commentationes. In Ptolomei Quadripartitum, inque Ciceronis Partitiones et Tusculanas questiones ac Plinii Naturalis historie librum secundum.’ **Last page** (sig. [G_{iv}]r, end of the Ptolemaic section): ‘Impressum Venetiis aere eruditi viri Marci Firmani in officina Simonis Bivilaquae, illustrissimo principe domino Leonardo Lauredano rem publicam moderante, anno domini milesimo quingentesimo secundo, die tertio mensis Novembris.’

Giorgio Valla’s commentaries on Ptolemy, Cicero and Pliny: ***Ptolemaica* (A_{ii}r–[G_{iv}]r)**; *In Ciceronis Partitiones commentaria* (a_{ii}r–[c_{vi}]r); *In Tusculanas Ciceronis quaestiones commentaria* (d_ir–f_{ii}r); *In Plinii praefationis primi libri Naturalis historiae obscuriores locos interpraetatio* (f_{iir}r–[g_{vii}]v). These commentaries were published posthumously by Giampietro Valla (Giorgio’s son), who addressed them to various Italian personalities, including the *Ptolemaica* to Gianstefano Ferrero, cardinal of Bologna (cf. dedicatory letter sig. [A_i]v).

Bibl. EDIT16: CNCE 36423

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b. 1015

A_{ii}r–[G_{iv}]r ‘Georgii Vallae Placentini In Ptolemaei ad Syrum Apotelesmata commentarium. Ptolemaeus mathematicorum omnium facile princeps ut quidam scripsere Adriani vixit temporibus ad Antoniumque… Exordium igitur in hoc opere sibi assumit Ptolemaeus in illos qui astronomiam artem — ex eo quod infertur ex ablatione ascensionum rectae sphaerae capitulo 16 omnium centrorum habebimus primordia.’
= ***In Ptolemaei ad Syrum Apotelesmata commentarium*, tr. Georgio Valla (C.2.12.1)**. Preface, A_{ii}r; Book I, A_{ii}r–C_{ii}v; II, C_{ii}v–D_{iii}r; III, D_{iii}r–F_{iii}v; IV, F_{iii}v–[G_{iv}]r.

Rome, Bernardinus Venetus de Vitalibus, 1507

'In hoc operae haec continentur: Geographia Cl<audii> Ptholemaei a plurimis viris utriusque linguae doctiss<ime> emendata et cum archetypo Graeco ab ipsis collata. Schemata cum demonstrationibus suis correcta a Marco monacho Caelestino Beneventano et Ioanne Cotta Veronensi viris mathematicis consultissimis. Figura de proiectione sphaerae in plano quae in libro octavo desiderabantur ab ipsis nondum instaurata sed fere ad inventa eius, enim vestigia in nullo etiam Graeco codice extabant. Sex tabulae noviter confectae, videlicet Hispaniae, Galliae, Livoniae, Germaniae, Poloniae, Ungariae, Russiae et Lituaniae, Italiae et Iudeae. Maxima quantitas dierum civitatum et distantiae locorum ab Alexandria Aegypti cuiusque civitatis quae in aliis codicibus non erant. Planisphaerium Cl<audii> Ptholemaei noviter recognitum et diligentiss<ime> emendatum a Marco monacho Caelestino Beneventano. Cautum est edicto Iulii II Pont. Max. ne quis imprimere aut imprimi facere audeat hoc ipsum opus pena excommunicationis latae sententiae his qui contra mandatum iussumque ve conari audebunt.'

Ptolemy's works: Evangelista Tosinus, dedicatory letter to Robert Guibé, cardinal of Nantes ([A_i]v); Ptolemy, *Geographia* (A_{ii}r–[N_{viii}]r); ***Ptolemaica*** **(O_ir–[O_{vii}]r)**; maps (no signature); 'Incipit registrum super Tractatum de tribus orbis partibus' (Aa_ir); 'De locis ac mirabilibus mundi et primo de tribus orbis partibus' (Aa_iv–[Cc_{iv}]r).

Bibl. EDIT16: CNCE 59093

Exemplar Madrid, Biblioteca Nacional, R 20753

O_ir–[O_{vii}]r 'Cum sit possibile, o Sire, et plurimum necessarium ut in plano represententur circuli in sphaeram corpoream incidentes — cum ipsis circulis tropicis et cum circulis meridianis signa distinguentibus. Explicit Planisphaerium Ptholemaei recognitum diligentissime a Marco Beneventano monacho Caelestinorum quod antea in multis etiam antiquis exemplaribus Latinis corruptissimum reperiebantur. Nec non Claudii Ptholemaei a plurimis viris utriusque linguae doctissime emendatum cum multis additionibus Romae, noviter impressum per Bernardinum Venetum de Vitalibus expensis Evangelista Tosino Brixiano Bibliopola imperante Iulio II Pont. Max. anno III pontificatus sui, die VIII Septembr<is> M.D.VII.'
= **Ptolemy, *Planispherium*, tr. Hermann of Carinthia (A.6.1)**, Class I, without the translator's preface.

Venice, Petrus Liechtenstein, 1509

'Sacratissime astronomie Ptholemei Liber diversarum rerum quem scrisit ad Heristhonem filium suum tractans compendiose de diversis rebus ut habetur in tabula que est in principio istius libri. MDVIII. Foelicibus astris prodeat in lucem ductu Petri Liechtenstein. Cum privilegio.'

Ptolemaica (single text), preceded by chapter index (1va–1vb).

Bibl. EDIT16: CNCE 60199

Exemplar Munich, Bayerische Staatsbibliothek, Clm 848#Beibd.1 a

2ra–14rb ‘Sacratissime astronomie Ptholemei Liber diversarum rerum, Venetiis anno 1509 ex officina Petri Liechtenstein Coloniensis Germani faustissime prodeat in lucem ad commune bonum. Signorum alias utrum masculini generis, alia feminini… (13vb) De mutatione aeris. Ut autem de temporum mutatione particulariter nosse — id est Canis ante unam diem. Finis. Laus Deo optimo maximoque. Explicit Liber diversarum rerum Ptholemei Philudiensis Alexandrini astronomorum principis clarissimi anno virginei partus 1509, die tertio Aprilis, Venetiis in aedibus Petri Liechtenstein Coloniensis Germani.’
= **Pseudo-Ptolemy, *Iudicia* (B.3)**, including Pseudo-Aristotle’s *De Luna*, 13rb–13vb, and Pseudo-Ptolemy’s *De temporum mutatione* (B.12), 13vb–14rb (see below).

13vb–14rb ‘De mutatione aeris. Ut autem de temporum mutatione particulariter nosse verum desideraveris, regule que iam dicentur ab animo tuo non labantur. Prima die mensis Septembris, Icarus, custos plaustri, apparet — id est Canis ante unam diem. Finis.’
= **Pseudo-Ptolemy’s *De temporum mutatione* (B.12)**, as the closing chapter of the preceding text.

Naples, Sigismundus Mayr, 1512

‘Pontani commentationes super centum sententiis Ptolemaei.’ **Last page:** ‘Neapoli. Ex officina Sigismundi Mayr Germani, summo ingenio artificis Ioannetto Salodio, Hieronymo Taegio et Petro Kirchberg ministris, an<no> MDXII, ac fideliter omnia ex archetypis Pontani ipsius manu scriptis, quae Neapoli in bibliotheca divi dominici cuncta servantur. Curavit rem diligenter P. Summontius Petro Rosa, Dionaeo Tornaquintio et Io. Vincentio Summontio coadiutoribus.’

Ptolemaica (single text), preceded by Petrus Summontius’s dedicatory letter to Berardino Sanseverino ([A_i]v) and followed by a poem ([K_{vii}]v) and *Errata* ([K_{viii}]r).

Bibl. EDIT16: CNCE 50483

Exemplar Unknown (Google Books, source not given).

A_{ii}r–[K_{vii}]r ‘Ioannis Ioviani Pontani commentationum in centum sententiis Ptolemaei ad Federicum Urbini ducem lib<er> primus. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime… (A_{ii}v) Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet… Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia. Finis.’
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Naples, Petrus Maria de Richis, 1513

'Ad Sylvium Pandonium Boviani episcopum Eutichi Augustini Niphi Philothei Suessani ad apotelesmata Ptolemaei eruditiones.' **Last page:** 'Impressum Neapoli per Petrum Mariam de Richis Papiensem, anno domini M.D.XIII, die vero XXIII Aprilis.'

Ptolemaica (single text).

Bibl. EDIT16: CNCE 38270

Exemplar Munich, Bayerische Staatsbibliothek, 2 Ph.sp. 31#Beibd.1

Iv–XXXXIIIv '([I]v) Praefatio. Consideranti mihi praesul dignissime ac Pandonii generis unicum decus quonammodo auditoribus meis bonarum atrium ac medicinae studiosis prodesse possim... (IIr) Ad Sylvium Pandonum Boviani episcopum Augustini Niphi Suessani eruditionum ad Apotelesmata liber primus. De potestate planetarum. Sol suapte natura calefaciendi atque aliqua ex parte exiccandi efficaciam habet... Duo sunt coeli sive luminaria sive lumina quae graece phosphora sive phota dicuntur — tamen usus meus est cum Graeco sine nomine, nam ipse fideliter Ptolomaei verba exposuit brevibus satis. Finis.'
= **Agostino Nifo, *Ad Apotelesmata Ptolemaei eruditiones* (C.2.15)**. Preface, [I]v; Book I, IIr–XXXIr; II, XXXIr–XXXXr; III, XXXXr–XXXXIIIv.

Venice, Petrus Liechtenstein, 1515

'Almagestum Cl<audii> Ptolemei Pheludiensis Alexandrini astronomorum principis, opus ingens ac nobile omnes celorum motus continens. Felicibus astris eat in lucem. Ductu Petri Liechtenstein Coloniensis Germani anno Virginei partus 1515, die 10 Ia<nuarii>, Venetiis ex officina eiusdem litteraria. Cum privilegio.'

Ptolemaica (single text), preceded by Petrus Liechtenstein's address (*1v) and a full chapter index of the *Almagest* (*1va–*2vb).

Bibl. EDIT16: CNCE 35583; Kunitzsch 1974, 95–96; Kunitzsch 1986–1991, II, 20.

Exemplar Zurich, ETH-Bibliothek, RAR 1357 q

1r–152r 'Cl<audii> Ptolemei Alexandrini astronomorum principis Almagesti seu Magne constructionis liber, omnium celestium motuum rationem clarissimis sententiis enucleans, fausto sydere incipit. Et primo in eundem prefatio. Quidam princeps nomine Albuguafe in libro suo... (1v) Capitulum primum de scientie huius ad alias excellentia et finis eius utilitate. Bonum scire fuit quod sapientibus non deviantibus visum est — tunc iam sequitur et honestum est ut imponamus hoc finem libro. Expleta est dictio tertiadecima et ultima libri Almagesti Ptolemei seu Magne constructionis absolutum est, ingenio labore et sumptibus Petri Liechtenstein Colonie<nsis>, anno Virginei partus 1515, die 10 Ianua<rii>, Venetiis.'

= **Ptolemy, *Almagesti*, tr. Gerard of Cremona (A.1.2)**, Classes A and B mixed. Preface, 1r–1v; I, 1v–11v; II, 11v–26r; III, 26r–35r; IV, 35v–46v; V, 46v–60r; VI, 60v–72v; VII, 73r–83v; VIII, 84r–93r; IX, 93r–108v; X, 109r–117v; XI, 118r–131r; XII, 131r–140v; XIII, 141r–152r.

Venice, Aldus Manutius & Andreas Socerus, 1516

'Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII, In Ibin, Ad Liviam. Aldus.' **Last page:** 'Venetiis in aedibus Aldi et Andreae Soceri mense Ianuario M.D.XVI.'

Classics: ***Ptolemaica* (I/2r–11r)**; *Romanorum menses in veteribus monimentis Romae reperti* (I/11v–17r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (I/17v–21v); Ovid's *Fasti* and other works (II/1r–227v).

Bibl. EDIT16: CNCE 47168

Exemplar Madrid, Biblioteca Nacional, R 33749

I/2r–11r 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Paris, Joannes de Porta, 1519

'Quadripartitum iudiciorum opus Claudii Ptolemei Pheludiensis ab Ioanne Sieurreo Brittuliano Bellovacensi p<er>belle recognitum.' **Last page:** 'Venundantur Parhisiis in edibus Ioannis de Porta in vico Sancti Ioannis Lateranensis sub signum dive Virginis Marie et in vico Cirhare in officina libraria vico Mathurinorum directe opposita.'

Ptolemaica (single text).

Bibl. ---

Exemplar London, British Library, General Reference Collection 531.g.2.(5.)

IIr–LIIv '([II]r) Ad strennuum equitem auratum Seraphinum Tyllettum prothonatorium et christianissimi regis secretarium supremeque curie parlamentee civilem grapharium Ioannis Sieurrei Brittuliani Bellovacensis in Quadripartiti Ptolomei recognitionem prefatio. Felices essent artes magnifice Seraphine — ([II]v) Ex edibus nostris Navarricis anno ab uberibus Marie millesimo quingentesimo decimonono, undecimo kalendas Octobris, Sole septimum Libre radiante.

(IIIr) Primus tractatus. Capitulum primum primi tractatus libri quadripertiti Ptolemei in collectione intellectus scientie iudiciorum astrorum. Caput primum. Rerum, Iesure, in quibus est prenosticabilis scientie stellarum perfectio magnas et precipuas duas esse deprehendimus — (LIv) hoc in loco huic libro finem imponere non incongruum existimavimus. Explicit liber quadripartiti Ptholomei. (LIv) Tabula capitulorum Quadripartiti Ptholomei... (LIIr) Habes, candide lector, hoc in loco que calcographi...'
= **Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1)**. Dedicatory letter, [II]r–[II]v; Book I, IIIr–XVr; II, XVr–XXVIr; III, XXVIr–XLIIr; IV, XLIIr–LIv; chapter index, LIv–LIIr; *Errata*, LIIr–LIIv.

Venice, Aldus Manutius & Andreas Socerus, 1519

'Centum Ptolemaei sententiae ad Syrum fratrem a Pontano e Graeco in Latinum translatae atque expositae. Eiusdem Pontani libri XIIII de Reb<us> coeslestibus. Liber etiam de Luna imperfectus.' **Last page:** 'Venetiis in aedibus Aldi et Andreae Soceri, mense Septemb<re> M.D.XIX.'

Giovanni Pontano's complete works, vol. III: ***Ptolemaica* (2r–93r)**; *De rebus coelestibus* (95r–296v); *De Luna fragmentum* (297r–298r); chapter index ([PPP_{vi}]r–QQQ_{iv}r), other indices (QQQ_{iv}v–RRR_{iii}r) and notes (RRR_{iii}v–[RRR_{vii}]r). The volume includes three letters by Petrus Summontius to Berardino Sanseverino (1v), to Andrea Matteo Acquaviva (94v) and to the reader (298v), as well as further letters (298v–301r).

Bibl. EDIT16: CNCE 47484

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b 1226

2r–93r 'Ioannis Ioviani Pontani commentationum in centum sententiis Ptolemaei ad Federicum Urbini ducem liber primus. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime... (2v) Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet... Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Venice, Octavianus Scotus, 1519

'Quadriparti<tum> Ptolo<mei>. Que in hoc volumine continentur hec sunt. Liber quadripartiti Ptolomei. Centiloquium eiusdem. Centiloquium Hermestis. Eiusdem de stellis beibeniis Centiloquium Bethem et de horis planetarum. Eiusdem de significatione triplicitatum ortus. Centum quinquaginta propositiones Almansoris. Zahel de interrogationibus. Eiusdem de

electionibus. Eiusdem de temporum significationibus in iudiciis. Messahallach de receptionibus planetarum. Eiusdem de interrogationibus. Epistola eiusdem cum duodecim capitulis. Eiusdem de revolutionibus annorum mundi.' **Last page:** 'Venetiis, mandato ac sumptibus heredum nobilis viri domini Octaviani Scoti, civis ac patritius Modoetiensis et sociorum, anno virginei partus saluberrimi 1519, sexto Februarii.'

Astrology: chapter index ([aa_1]v–aa_2r); Hieronymus Salius Faventinus, dedicatory letter to Domenico Maria Novara ('Dominico Marie de Anuaria (!) Ferrariensi') ([aa_3]ra–[aa_3]vb); ***Ptolemaica* ([aa_4]r–96v and 97r–106r)**; Hermes, *Centiloquium* (106v–107v); Hermes, *Liber de stellis beibeniis* (107v–108v); Bethen, *Centiloquium* (108v–109r); Bethen, *De horis planetarum* (109r–109v); *Capitula Almansoris* (109v–111r); Zael, *Liber iudiciorum* (111v–130v); Messahallah, *Liber receptionis* (130v–135v); Messahallah, *Epistola de rebus eclipsium* (135v–136v); Messahallah, *De revolutionibus annorum mundi* (137r–140r).

Bibl. EDIT16: CNCE 53618

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b 1007

[aa_4]r–96v 'Egidii de Tebaldis Lombardi de civitate Parmensi in Quadripartiti Ptolomei epistola. Dixit Egidius: Scire et intelligere gloriosum est quia omnis scientia est a Deo... ([aa_4]r) Incipit tractatus primus glose Haly Heben Rodan super prima parte libri quadripartiti Ptolomei Pheludiani. Dixit Haly: Verba que dixit sapientissimus Ptolomeus in arte iudiciorum... (1ra) Incipit liber quadripartiti Ptolomei, id est quatuor tractatuum in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus cum commento Haly Heben Rodan, cuius in primo tractatu XXIIII capitula. Capitulum primum primi tractatus libri quadripartiti Ptolomei in collectione intellectus scientie iudiciorum astrorum. Prohemium. [PLATO OF TIVOLI'S LEMMA] Rerum, Iesure, in quibus est pronosticabilis scientie stellarum perfectio magnas et precipuas duas esse deprehendimus. [EGIDIUS DE TEBALDIS'S LEMMA] Res quibus perficiuntur pronostications, Missori, maiores et nobiliores sunt due — (94v) posuit in hoc libro sunt regule et radices quibus ars ista componitur. Explicit liber 4 Pto<lomei> in radicanti discretione per stellas de futuris et in hoc mundo constructionis et destructionis contingentibus. Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradum ascendentis — (95r) erit locus radiationis equate. De tribus nativitatibus. Volo in hoc loco tibi dare exemplum trium nativitatum ut melius intendas quicquid locuti sumus in eis, et prima est nativitas mea — hec sunt que tibi glosavi in quibus studium et mentem apponas et Deus te dirigat in viam rectam. Expliciunt examinationes trium nativitatum. Volui probare utrum auctor iste iudicaret secundum nonam spheram vel secundum octavam et inveni loca planetarum que ponit in figura sue nativitatis quod ipsa fuit annis 4 perfectis 986, 10 mensibus, 15 die Ianuarii, qua die equavi planetas secundum tabulas Mach<linienses> et inveni sic. Finis.'
= **Haly Abenrudian, *Glosa super Quadripartito Tholomei* (C.2.2)**, with each lemma also given in Plato of Tivoli's translation (A.2.1). Translator's

preface, [aa$_4$]r; Haly's preface, [aa$_4$]r–[aa$_4$]v; I, 1r–25r; II, 25r–46v; III, 46v–75v; IV, 75v–94v; Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6), 94v–95r (see below); Haly's appendix, 95r–96v; additional note, 96v.

94v–95r 'Scientia proiectionis radiorum. Cum proiectionem radiorum stellarum scire volueris, scias gradum ascendentis — (95r) erit locus radiationis equate.'
= **Pseudo-Ptolemy, *Liber proiectionis radiorum stellarum* (B.6)**, as part of the preceding text.

97r–106r 'Incipit liber centum verborum Ptholemei cum commento Haly. Dixit Ptholemeus: Iam scripsi tibi, Iesure, libros de hoc quod operantur stelle in hoc seculo... Verbum primum in cognitione eorum que verum iudicium perhibent. Scientia stellarum ex te et ex illis est. Astrologus autem non debet dicere rem specialiter sed universaliter... Expositio Haly super primo verbo. Quod dixit Ptho<lemeus>, ex te et illis, significat quod qui res futuras scire desiderat — et ego Deum precor ut te diligat, quoniam perfecta est huius libri translatio 17 die mensis Marcii, 12 die mensis Gumedi secundi anno Arabum 530. Liber Ptolomei quatuor tractatuum cum Centiloquio eiusdem et commento Haly feliciter finit.'
= **Abuiafar Hamet filius Joseph, ⟨*Commentum in Centiloquium*⟩, tr. Plato of Tivoli (C.3.1.1)**, with v. 1 also given in the 'Mundanorum' version (C.3.1.3) and in Adelard of Bath's translation (B.1.1) (= 'threefold' version).

Florence, Philippus Junta, 1520

'Centum Ptolemaei sententiae ad Syrum fratrem a Pontano e Graeco in Latinum translatae atque expositae. Liber etiam de Luna imperfectus.' **Last page:** 'Florentiae per hæredes Philippi Iuntæ, anno domini M.D.XX, die sextadecima Iulii, Leone X Pont<ifice> Max<imo>.'

Giovanni Pontano's complete works, vol. V: ***Ptolemaica* (2r–144r)**; *De Luna fragmentum* (144v–146v); letter to Pietro Salvatore Valla, 1 January 1460 (147r–148r).

Bibl. EDIT16: CNCE 28755

Exemplar Torino, Biblioteca Nazionale Universitaria, Q.VIII.223 (except for front page, seen in the exemplar of Florence, Biblioteca Nazionale Centrale)

2r–144r 'Ioannis Ioviani Pontani commentationum in centum sententiis Ptolemaei ad Federicum Urbini ducem liber primus. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime... (3r) Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet... Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Strasbourg, Johann Knobloch, 1522

'Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. P. Ovidii Nasonis Fastorum lib<ri> VI.'

Classics: ***Ptolemaica* (2r–12v)**; *Romanorum menses in veteribus monimentis Romae reperti* (13r–19r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (19v–24r). The last text announced on the front page (Ovid's *Fasti*) is not in the Munich exemplar.

Bibl. VD16 P 5224

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b 3085

2r–12v 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Antwerp, Joannes Grapheus, 1527

'Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monumentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Antwerpiae apud Ioannem Grapheum, anno M.D.XXVII.'

Calendars: ***Ptolemaica* ($\mathbf{A_2}$r–$\mathbf{B_2}$v)**; *Romanorum menses in veteribus monimentis Romae reperti* (B_2v–[B_7]v); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* ([B_8]r–[C_4]r).

Bibl. *---*

Exemplar Unknown (Google Books, source not given).

A_2r–B_2v 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Venice, Luceantonius Junta, 1528

'Claudii Ptolemaei Pheludiensis Alexandrini Almagestum seu Magnae constructionis mathematicae opus plane divinum Latina donatum lingua ab Georgio Trapezuntio usque quaq. Doctissimo. Per Lucam Gauricum Neapolit<anum> divinae matheseos professorem

egregium in alma urbe Veneta orbis regina recognitum anno salutis MDXXVIII labente.' **Last page** (sig. 143v) 'Claudii Ptolemaei Alexandrini Magna sinthesis per L<ucam> Gauricum Neapolit<anum> exacte recognita in urbe Veneta Urbium et orbis regina et calcographica Luceantonii Iunta officina aere proprio ac typis excussa, horoscopante Iovia stella in calce Febru<arii> ad calcem redacta anno Christi 1528 labente qui fluxit ab Adamo annus secundum Hebreos et Io<hannem> Picum Mirandula anni 5035; Paulum Orosium, Bedam, Eusebium 6726; Apostolos et primos Ecclesiae patres 7027; Alphonsum Hispaniae regem 8512.'

***Ptolemaica* (A_3r–141r and 141v–143v)**, preceded by Luca Gaurico's letter to 'clarissimo iuveni D. Dominico Palavicino' (A_2r) and a set of Greek and Latin verses (A_2v).

Exemplar Munich, Bayerische Staatsbibliothek, Res/2 A.gr.b 1003

Bibl. EDIT16: CNCE 29477

A_3r–141r 'Prohaemium ad sanctissimum dominum Sixtum pont<ificem> max<imum>, Andreae Trapezuntii, Georgii filii, in paternam Almagesti Ptolomaei traductionem prefatio. Revolventi mihi nuper libros patris mei, Georgii Trapezuntii, viri optimi et omni doctrinarum genere insignis... (1r) Magnae compositionis Cl<audii> Ptolemaei Alexandrini libri a Georgio Trapezuntio e Graeco conversi per L<ucam> Gauricum castigati. Peroptime mihi videtur, o Syre, qui bene philosophati sunt, speculativam philosophyae partem ab activa separasse — idoneum hic modum ac finem haec est compositio consecuta.'
= Ptolemy, *Almagesti*, tr. George of Trebizond (A.1.4). Andreas of Trebizond's preface to Sixtus IV, A_3r–[A_4]v; chapter index of the 13 books, [A_5]r–[A_6]v; I, 1r–10v; II, 11r–24r; III, 24r–32r; IV, 32r–43r; V, 43r–55r; VI, 55r–67v; VII, 67v–78v; VIII, 78v–88v; IX, 89r–103r; X, 103r–110v; XI, 110v–121v; XII, 122r–129v; XIII, 130r–141r.

141v–143v 'Gaurici addictiones. [Table] Umbra gnomonis in meridiebus... (142r) Tabula ad sciendum latitudines regionum per horas diei prolixioris et econtra... (142v) Stellas fixas Ptolemaei ad annum salutis 1530 redigere. Si quispiam omnes stellas fixas Ptolemaei tempore observatas ad nostram hanc tempestatem seu mavis annum Christi 1530 redigere voluerit, ipsarum longitudinibus G. 19, M. 50 adiiciat... (142v–143v) [Tables of months].'
= Luca Gaurico, *Additiones in Almagesti* (C.1.25).

Nürnberg, Georgius Wachter, 1530

'De medicis et infirmis collectanea in ordinem centiloquii congesta. Authore Hieronymo Mamfredo clariss<imo> philosopho, medico, astrologo. Insuper in vigintiocto mansiones Lunae deque impedimentis eiusdem generalibus Ioannis Schöneri mathematici collectanea. M.D.XXX.' **Last page:** 'Impressum Nurembergae sumptu Georgii Vuachter, anno M.D.XXX, mense Martio.'

Astrology: Johannes Schöner, dedicatory letter to Ioannes Schütz (A_2r–A_3r); poem (A_3r–A_3v); Girolamo Manfredi, *Centiloquium de infirmis et medicis* (A_4r–C_2v); Johannes Schöner, *In Lunae observationem collectanea* (C_3r–C_5r); ***Ptolemaica* (C_5v–[C_7]r)**.

Bibl. VD16 M 565

Exemplar Munich, Bayerische Staatsbibliothek, Med.g. 298

C_5v–[C_7]r ‘Ioannis Ioviani Pontani in verbum LX ac LXI Centiloquii Ptolemei de criticis diebus et Lunae motus observatione expositio. Ptolemaeus. LX verbo. Super aegrotis criticos dies inspice ac Lunae peragrationem in angulis figurae… Pontanus. Qui sint dies critici non medicis solum — nunc tenuiter extenuando naturaliter moveatur. Finis.’
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, v. 60–61.

Basel, Andreas Cratander, 1531

‘Io<annis> Ioviani Pontani commentariorum in centum Claudii Ptolemaei sententias libri duo. Apud And<ream> Cratandrum, mense Septembri, an<no> M.D.XXXI.’ **Last page:** ‘Excudebat Basileae Andreas Cratander, mense Semptembri, anno a Christo nato M.D.XXXI.’

Ptolemaica (single text), preceded by subject index (a_2r–a_4r).

Bibl. VD16 P 5260

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b 1228

1–169 ‘Ioan<nis> Ioviani Pontani commentationum in centum Claudii Ptolemaei sententias ad Federicum Urbini ducem liber primus. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime… (2) I. Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet… Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficacia. Commentariorum Io<annis> Iov<iani> Pontani in centum Ptolemaei sententias. Finis.’
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Basel, Johannes Hervagius, 1533

‘Iulii Firmici Materni iunioris siculi V. C. ad Mavortium Lollianum astronomicῶn lib<ri> VIII per Nicolaum Prucknerum astrologum nuper ab innumeris mendis vindicati. His accesserunt Claudii Ptolemaei Pheludiensis Alexandrini ἀποτελεσμάτων, quod Quadripartitum vocant, lib<ri> IIII. De inerrantium stellarum significationibus lib<er> I. Centiloquium eiusdem. Ex Arabibus et Chaldeis: Hermetis vetustissimi astrologi centum aphoris<morum> lib<er> I. Bethem Centiloquium. Eiusdem de horis planetarum liber alius. Almansoris astrologi propositiones ad Saracenorum regem. Zahelis Arabis de electionibus lib<er> I. Messahalah de

ratione circuli et stellarum, et qualibet in hoc seculo operentur lib<er> I. Omar de nativitatibus lib<ri> III. Marci Manilii poetae dissertissimi astronomicῶn lib<ri> V. Postremo, Othonis Brunfelsii de diffinitionibus et terminis astrologiae libellus isagogicus. Basileae ex officina Ioannis Hervagii, mense Martio, anno M.D.XXXIII.' **Last page:** 'Basileae per Ioannem Hervagium, mense Martio, anno M.D.CCCIII.'

Astrology: Nicolaus Pruckner, dedicatory letter to Otho Brunfelsius (I/[a_1]v–a_2r); Otho Brunfelsius, *De diffinitionibus et terminis astrologiae libellus* (I/a_2v–[a_6]r); Firmicus Maternus, *Mathesis* (I/[a_6]v–244); ***Ptolemaica* (II/1–74, 74–78 and 79–84)**; Hermes, *Centiloquium* (II/85–89); Bethen, *Centiloquium* (II/89–93); *Capitula Almansoris* (II/93–110); Bethen, *De horis planetarum* (II/110–12); Zael, *De electionibus* (II/112–14); Messahallah, *Epistola de rebus eclipsium* (II/115–18); Aomar, *De nativitatibus* (II/118–41); astrological notes (II/141–43); Manilius, *Astronomica* (II/[144]–[231]).

Bibl. VD16 F 1119

Exemplar Munich, Bayerische Staatsbibliothek, Res/2 A.gr.b. 604

II/1–74 'Cl<audii> Ptolomaei Pheludiensis Alexandrini Quadripartitum. Prooemium. Rerum, Iesure, in quibus est pronosticabilis scientiae stellarum perfectio magnas et praecipuas duas esse deprehendimus — hoc in loco huic libro finem imponere non incongruum existimamus.'
= **Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1)**. I, 1–21; II, 21–36; III, 36–60; IV, 60–74.

II/74–78 'Cl<audii> Ptolomaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

II/79–84 'Cl<audii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum a Graceo translatae. Ianuarius. K<al.>: Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Venice, Aldus Manutius & Andreas Socerus, 1533

'Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII, In Ibin, Ad Liviam. Aldus.' **Last page:** 'Venetiis in aedibus haeredum Aldi et Andreae Soceri mense Decembri M.D.XXXIII.'

Classics: ***Ptolemaica* (I/2r–11r)**; *Romanorum menses in veteribus monimentis Romae reperti* (I/11v–17r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (I/17v–21v); Ovid's *Fasti* and other works (II/1r–227v).

Bibl. EDIT16: CNCE 27209

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a.991–3

I/2r–11r 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.' = **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1534

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII, praeterea Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Basileae in aedibus Henrici Petri.' **Last page:** 'Basileae ex aedibus Henrici Petri, mense Augusto, anno M.D.XXXIIII.'

Classics: Ovid's *Fasti* and other works (1r–202r); ***Ptolemaica* (202r–211r)**; *Romanorum menses in veteribus monimentis Romae reperti* (211v–217r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (217v–221v); 'De hebdomada. Hebdomada graece a septenario numero nomen accepit...' (222r–235v).

Bibl. VD16 O 1514

Exemplar Zurich, Zentralbibliothek, Rq 491

202r–211r 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.' = **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Nürnberg, Johannes Petreius, 1534

'Instrumentum primi mobilis a Petro Apiano nunc primum et inventum et in lucem editum. Ad cuius declarationem et intellectum pronunciata centum hic proponuntur est quibus instrumenti nobilissimi usus innotescit et compositio. Inquirere autem et invenire licebit in hoc instrumento, quicquid uspiam in universo primo mobili nova quadam finuum ratione indagari potest, nec quicquam in eo ipso primo mobili desiderare poterit quod non per intrumentum hoc inveniri facile queat. Accedunt iis Gebri filii Affla Hispalensis astronomi

vetustissimi pariter et peritissimi libri IX de astronomia, ante aliquot secula arabice scripti et per Giriardum Cremonensem latinitate donati, nunc vero omnium primum in lucem editi. Omnia haec industria et benevolentia Petri Apiani mathematici prelo commissa et reverendiss<imo> in Christo patri et D. D. Christophoro à Stadio etc., ornatissimo praesuli Augustensi, ob illustrationem suae familiae insignum dedicata. Quibus et tu studiose lector benignus fruere, tanto praesidi perpetuo gratissimus. Norimbergae apud Io<hannem> Petreium anno M.D.XXXIIII.'

Astronomy: Petrus Apianus, dedicatory letter to Christophorus Stadius, bishop of Augsburg (a_2v–a_3v); Petrus Apianus, *Instrumentum primi mobilis* ([a_4]r–[k_4]r); ***Ptolemaica* (1–146)**.

Bibl. VD16 A 3087

Exemplar Munich, Bayerische Staatsbibliothek, Hbks/R 2 gc

1–146 'Gebri filii Affla Hispalensis De astronomia libri IX, in quibus Ptolemaeum alioqui doctissimum emendavit, alicubi etiam industria superavit, omnibus astronomiae studiosis haud dubie utilissimi futuri, foeliciter incipiunt. Liber primus continens quaedam elementa geometrica ad astronomiam necessaria, nusquam alias obvia se dab ipso autore summa industria in lucem prodita. Prooemium. Scientia species habet quarum melior post scientiam — sunt digniores ut evanescant et destruantur. Completa est eius declaratio. Finis novem librorum Gebri, arabice primo scripti et per magistrum Girardum Cremonensem in Latinum versi.'
= **Geber, *Liber super Almagesti* (C.1.2)**. Preface, 1–3; I, 3–20; II, 20–38; III, 38–45; IV, 45–60; V, 60–83; VI, 84–103; VII, 103–125; VIII, 125–133; IX, 134–146.

Wittenberg, Nicolaus Schirlentz, 1534

'Claudii Ptolemei inerrantium stellarum significationes per Nicolaum Leonicenum e Graeco translatae. Vitebergae 1534.' **Last page:** 'Excusum Vitebergae per Nicolaum Schirlentz.'

Ptolemaica (single text), preceded by Leonardus Fuchsius's letter to the reader (A_{ii}r–A_{iii}r) and followed by 'Ex tertio libro Galeni de diebus decretoriis...' ([B_6]v–[B_8]r).

Bibl. VD16 P 5227

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, IIc 258

A_{iii}v–[B_6]r 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicenum e Graeco translatae. Ianuarius XXXI. K<al>. 1. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. 2. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) III. 30. Canicula occidit vespere, tempestas. Pri. 31 Tempestas ventosa. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Nürnberg, Johannes Petreius, 1535

'Hoc in libro nunquam ante typis aeneis in lucem edita haec insunt. ΚΛΑΥΔΙΟΥ πτολεμαίου πηλουσιέως τετράβιβλος σύνταξις, πρὸς Σύρον ἀδελφόν. ΤΟΥ ΑΥΤΟΥ καρπὸς, πρὸς τὸν αυτὸν Σύρον. Claudii Ptolemaei Pelusiensis libri quatuor compositi Syro fratri. Eiusdem fructus librorum suorum, sive Centum dicta, ad eundem Syrum. Traductio in linguam Latinam librorum Ptolemaei duum priorum. Et ex aliis praecipuorum aliquot locorum, Ioachimi Camerarii Pabergensis. Conversio Centum dictorum Ptolemaei in Latinum Ioviani Pontani. Annotatiunculae eiusdem Ioachimi ad libros priores duos iudiciorum Ptol<emaei>. Matthaei Guarimberti Parmensis opusculum de radiis et aspectibus planetarum. Aphorismi astrologici Ludovici de Rigiis ad patriarcham Constantinopolitanum. Norimbergae M.D.XXXV.' **Last page:** 'Norimbergae apud Ioannem Petreium, anno M.D.XXXV.'

Astrology: Joachim Camerarius, Greek verses ([i]v); Joachim Camerarius, dedicatory letter to Albrecht of Brandenburg (iir–[v]r); Ptolemy, *Tetrabiblos*, Greek (α_1r–o_3r); Pseudo-Ptolemy, *Karpos*, Greek (o_3v–π_3v); ***Ptolemaica* ([a_i]r–32v and 33r–37r)**; Joachim Camerarius, notes concerning the edition of the Greek text of the *Tetrabiblos* and his Latin translation of Books I–II (37v–43v); Matheus de Guarimbertis, *De directione et proiectione radiorum et aspectuum* (44r–71v); Ludovicus de Rigiis, *Aphorismi astrologici* (72r–84r); ***Ptolemaica* (aa_ir–[ff_{iv}]r)**.

Bibl. VD16 P 5248

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b. 1212

[a_i]r–32v 'Cl<audii> Ptolemaei librorum de iudiciis astrologicis quatuor, duo priores conversi in linguam Latinam a Ioachimo Camerario Pabergense. Annotatiunculae in eosdem. Aliquot loci translati de tertio et quarto libro Ptolemaei per eundem Camerarium. [Joachim Camerarius, Latin verses.] (a_{ii}r) Ioachimus Camer<arius> Io. Vilhelmo a Lovbenburg equ<iti> domino ac praesidi arcis Vualdegk S. D. Etsi animus non erat, cum dedissem excudendum typis aeneis Graecum codicem Ptolemaei... (1r) Claudii Ptolemaei mathematici operis libri quatuor in quibus de iudiciis disseritur ad Syrum. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — si apte cum mathematici caussa mistionum etiam caussa iuncta fuerit.'
= **Ptolemy, *Quadripartitum*, tr. Joachim Camerarius (A.2.9)**. Title page and Latin verses, a_ir (a_iv blank); Joachim Camerarius, dedicatory letter to Johann Wilhelm von Laubenberg (a_{ii}r–a_{iii}v); Book I, 1r–15r; II, 15v–28r, III, 28r–29v (selection); IV, 29v–32v (selection).

33r–37r 'Cl<audii> Ptolemaei Centum dicta sive Fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

aa_ir–[ff_{iv}]r ‘Ad lectorem. Hosce duos posteriores libros, cum Camerarius priores vertendos susceperit, ex vetere translatione hic adiicere voluimus... Cl<audii> Ptolemaei Quadripartiti liber III. Postquam accidentia generalia in his que ex nostra observatione praemissa sunt — hoc in loco huic libro finem imponere non incongruum existimamus.’
= **Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1)**, Books III–IV. III, aa_ir–[dd_{iv}]r; IV, [dd_{iv}]r–[ff_{iv}]r.

Basel, Johannes Walderus, 1536

‘Sphaerae atque astrorum coelestium ratio, natura et motus ad totius mundi fabricationis cognitionem fundamenta. M.D.XXXVI. Valderius.’

Astronomy: Johannes Walderius, letter to the reader ([α_1]v); Greek index and *errata* (α_2r–α_4v); Jacob Ziegler, *De solidae sphaerae constructione* (1–21); Pseudo-Proclus, *De sphaera*, with comm. Jacob Ziegler (22–84); ‘Hemicyclium Berosi ex Iacobi Ziegleri Landaui traditione’ (85–90); Aratos, *Phaenomena*, with comm. Leontios, Greek (93–225); ***Ptolemaica* (227–74)**; Jordanus de Nemore, *De plana spera* (275–294).

Bibl. VD16 P 8303

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b. 1194

227–274 ‘Rodulphi Brughensis ad Theodorichum Platonicum in traductionem Planispherii Claudii Ptolemaei praefatio. Quemadmodum Ptolomaeus et ante eum nonnulli veteris authoritatis viri antiquas scribunt historias... (232) Claudii Ptolemaei sphaerae aplanetis proiectio in planum incipit. Cum sit possibile, o Syre, et plurimum necessarium ut in plano represententur circuli in sphaeram corpoream incidentes — cum ipsis circulis tropicis et cum circulis meridianis signa distinguentibus.’
= **Ptolemy, *Planispherium*, tr. Hermann of Carinthia (A.6.1)**, Class I. Translator’s preface, 227–232; text, 232–274.

Lyon, Sebastianus Gryphius, 1536

‘Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Lugduni, apud Seb<astianum> Gryphium, 1536.’

Classics: Ovid’s *Fasti* and other works (3–418); letter to the reader, dated Lyon, 17 August 1534 (ddd_2r); ***Ptolemaica* (ddd$_2$v–[ccc$_4$r])**. The signature of the Ptolemaic section does read ‘d’ then ‘c’.

Bibl. ---

Exemplar Lyon, Bibliothèque Municipale, Rare & spec. coll. storage, 349461

ddd_2v–[ccc_4]r ‘Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi

fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Publisher Unknown, 1537

'Cl<audii> Ptolomaei Pheludiensis Alexandrini philosophi et mathematici excellentissimi Phaenomena, stellarum MXXII fixarum ad hanc aetatem reducta atque seorsum in studiosorum gratiam, nunc primum edita interprete Georgio Trapenzuntio. Adiecta est Isagoge Ioannis Noviomagi ad stellarum inerrantium longitudines ac latitudines, cui etiam accessere imagines sphaerae barbaricae duodequinquaginta Alberti Dureri. Excusum Coloniae Agrippinae anno MDXXXVII, octavo calendas Septembres.'

***Ptolemaica* (A_{ii}v–[A_{iv}]v and B_ir–[E_{iv}]r)**, preceded by Johannes Noviomagus's dedicatory letter to Reinhard von Leiningen-Westerburg (A_{ii}r). The two celestial maps by Dürer announced in the title are missing in apparently all copies of this edition but one (see Satterley and Dekker/Meurer/Satterley).

Bibl. VD16 P 5203; R. Satterley, 'The Rediscovery of Two Ceslestial Maps from 1537', *Imago Mundi* 62 (2010), 86–91; E. Dekker, P. H. Meurer, R. Satterley, 'Zwei Himmelskarten nach Dürer bei Johannes Noviomagus (Köln 1537)', *Cartographica Helvetica* 42 (2010), 39–53: 43–44 and *passim*.

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b 1003k

A_{ii}v–[A_{iv}]v 'Isagoge in Ptolomaei Phaenomena. Ut igitur Phaenomena quae astrologiae primordia sunt rectius intelligantur a studiosis — vocat in Meteoris. Finis.'
= **Johannes Noviomagus, *Isagoge in Ptolomaei Phaenomena* (C.1.26)**.

B_ir–[E_{iv}]r 'Claudii Ptolomaei Pheludiensis Alexandrini Almagesti seu ΜΕΓΑΛΗΣ ΠΡΑΓΜΑΤΕΑΣ, id est Magnae constructionis, liber septimus, qui universa phaenomena complectitur, interprete Georgio Trapenzuntio. Cap. I. Quod stellae non erraticae semper eundem inter se situm servent. Quoniam in superioribus tam recte quam declivis — (E_{iii}r) ad tropicos sicut in polis ipsius aequinoctialis haberi possunt. Finis constellationum Ptolomaei. Quae duobus proxime libris Ptolomaeus complexus est huc spectant ut studiosi totius caeli stellati imaginem depingant — Annos autem Aegyptii auspicantur ab autumno.'
= **Ptolemy, *Almagesti*, tr. George of Trebizond (A.1.4)**, VII.1-VIII.3 (including star catalogue with longitudes adjusted +19°50′). VII, B_ir–C_{vi}r; VIII, C_{vi}r–E_{iii}r; Johannes Noviomagus's addition, E_{iii}r–[E_{iv}]r.

Basel, Henricus Petri, 1538

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII, praeterea Cla<udii> Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco

translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Basileae in aedibus Henrici Petri.'
Last page: 'Basileae ex aedibus Henrici Petri, mense Martio M.D.XXVIII.'

Classics: Ovid's *Fasti* and other works (3–405); ***Ptolemaica* (405–23)**; *Romanorum menses in veteribus monimentis Romae reperti* (424–35); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (436–44).

Bibl. VD16 O 1517

Exemplar Munich, Bayerische Staatsbibliothek, a.lat.a.993#Beibd.1

405–423 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Sebastianus Gryphius, 1539

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Lugduni, apud Seb<astianum> Gryphium, 1539.'

Classics: Ovid's *Fasti* and other works (3–418); letter to the reader, dated Lyon, 17 August 1534 (ddd_2r); ***Ptolemaica* (ddd$_2$v–[ccc$_4$r])**. The signature of the Ptolemaic section does read 'd' then 'c'.

Bibl. ---

Exemplar Rome, Biblioteca Nazionale Centrale, $2A–2Z^8 3a–3d^8 3e^4$

ddd_2v–[ccc_4]r 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Rome, Antonius Bladus Asulanus, 1539

'Ad illustrissimum dominum Alfonsum Davolos de Aquino marchionem Vasti, Montis Herculis principem, regni citerioris Siciliae magnum camararium, caesareique exercitus imperatorem invictissimum Lucae Gaurici servuli praedictiones super omnibus futuris luminarum deliquiis in finitore Venetiano, anno humani verbi M.D.XXXIII, examinatae figurae coelestes Venetiarum, Bononiae et Florentiae. Paraphrases et annotationes in Claudii Ptolomaei libro II Apotelesmatum super luminum eclypsibus. Procli Diadochi Lycii Decreta

eclypsum utriusque luminaris, quae in quolibet signorum decano accidere possunt, interprete Laurentio Miniatense.' **Last page:** 'Romae, Antonius Bladus Asulanus excudebat, anno domini M.D.XXXIX, mense Decembri.'

Luca Gaurico's astrological works: *Praedictiones super omnibus futuris luminarum deliquiis in finitore Venetiano anni 1539 usque ad annum 1551* ([A_i]v–[E_{iiii}]v); horoscopes of Venice, Bologna and Florence (F_ir–F_{ii}r); ***Ptolemaica*** **(F_{iii}r–[L_{iii}]r)**; *Errata* ([L_{iii}]v). The third text announced on the title page (Proclus Diadochus) in fact belongs to the Ptolemaic section (Kiv–K_{ii}r).

Bibl. EDIT16: CNCE 20519

Exemplar Munich, Bayerische Staatsbibliothek, Res/4 Astr.p. 152

F_{iii}r–[L_{iii}]r 'Claudii Ptolemaei Alexandrini Apotelesmatum lib<ro> II, capite VII de tempore eventuum. Primum in unaquaque regione, cuius situs ratione comprehensus est... (F_{iii}v) L. Gauricus. Ptolemaeus ab intervallo ascendentis ac loci defectus docuit invenire tempus in quo luminarium eclypses incipiunt suos producere effectus — vel alcocodea maximum vitae periculum vel infirmitatem magnam, nisi fortunae aspexerint. Finis.'
= **Luca Gaurico, *Paraphrases et annotationes in Claudii Ptolomaei libro II Apotelesmatum super luminum eclypsibus* (C.2.21)**.

Schwäbisch Hall, Petrus Brubachius, 1539

'P. Ovidii Nasonis Fastorum lib<ri> VI, cum scholis ac succuncta quadam enarratione locorum insignium difficiliumque. His accesserunt Claudii Ptolemaei Errantium stellarum significationes per Nicolaum Leonicenum e Graeco translatae. Halae Suevorum, anno XXXIX.' **Last page:** 'Excusum Halae Suevorum per Petrum Brubachium anno millesimo quingentesimo trigesimonono, mense vero Augusto.'

Classics: Ovid, *Fasti* (2r–98v); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (N_2v–[O_6]r); Leonardus Fuchsius, letter to the reader ([O_6]v–[O_7]r); ***Ptolemaica*** **([O_7]r–Q_1v)**; 'Ex tertio libro Galeni de diebus decretoriis...' (Q_1v–Q_3v).

Bibl. VD16 O 1614

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a. 1094

[O_7]r–Q_1v 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicenum e Graeco translatae. Ianuarius XXXI. K<al>. 1. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. 2. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) III. 30. Canicula occidit vespere, tempestas. Pri. 31. Tempestas ventosa. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Andreas Cratander, 1540

'Ioannis Ioviani Pontani librorum omnium quos soluta oratione composuit tomus tertius, in quo Centum Ptolemaei sententiae a Pontano e Graeco in Latinum translatae atque expositae. Eiusdem Pontani de Rebus coeslestibus libri XIIII. De Luna liber imperfectus. Basileae, M.D.XL.' **Last page:** 'Basileae, per haeredes Andreae Cratandri, mense Augusto, anno M.D.XL.'

Giovanni Pontano's complete works, vol. III: chapter index ([a_1]v–[a_4]v); ***Ptolemaica* (1–170)**; *De rebus coelestibus* (173–550); *De Luna fragmentum* (551–553); Petrus Summontius, letter to the reader (553); other letters (554–555).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, Opp. 671 e-3

1–170 'Ioannis Ioviani Pontani commentationum in centum Claudii Ptolemaei sententias ad Federicum Urbini ducem liber primus. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime... (2) I. Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronuntiet... Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia. Commentariorum Ioannis Ioviani Pontani in centum Ptolemaei sententias finis.' = **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Rome, Valerius Doricus & Ludovicus Doricus, 1540

'Claudii Ptolemaei Alexandrini astronomorum principis Centum sententiae interprete Georgio Trapezuntio. Lucae Gaurici oratio de inventoribus, utilitate et laudibus astronomiae.' **Last page:** 'Impressum Romae per Valerium Doricum et Ludovicum fratres Brixianos anno Christianae salutis M.D.XL' (sig. [N_{iv}]v).

Luca Gaurico, dedicatory letter to Cardinal Girolamo Aleandro (A_{ii}r–[A_{iv}]v); ***Ptolemaica* (B_ir–[N_{iv}]r)**; Luca Gaurico, *Oratio de inventoribus, utilitate et laudibus astronomiae* (O_ir–P_{ii}r).

Bibl. EDIT16: CNCE 56760

Exemplar London, British Library, General Reference Collection 531.g.2.(3.)

B_ir–[N_{iv}]r 'Liber Claudii Ptolemei qui vocatur fructus ad illus<trissimum> Alfonsum regem Aragonum et utriusque Siciliae a Georgio Trapenzuntio ex Greco in Latinum versus. Librum Claudii Ptolemei mihi Alfonse rex inclyte traductum quem vulgo Centiloquium ipse fructum appellat... (B_{ii}r) Ptolomeus ad Sirum fratrem. Iam pridem perutiles ad previdendum operationes stellarum, o Sire, quas in hoc composito efficiunt mundo exposuimus... Primus amph<orismus>. Abs te et a scientia, non est enim possibile ut huius scientie professor particulares rerum ideas prevideat — (D_ir) Sin vero non moventur hostis

indigena erit. (D_iv) Commentarii et expositiones Georgii Trapezuntii in aphorismis libri fructus Ptolemei ad Alfonsum regem Aragonum et utriusque Siciliae. Libellus hic quem de Greco traductum nomini tuo dedicavimus, illustrissime rex... (D_{ii}v) Abs te et scientia. Abs te, inquit, hoc est a quadam insita vi animi et ingenio et a scientia nature stellarum precognitio fit — si vero in 8 domo quae morti attribuitur erant mortes subitaneae.'
= **George of Trebizond, *Commentarii et expositiones in aphorismis Libri fructus Ptolomei* (C.3.11)**. George of Trebizond's preface, B_ir–B_iv; author's preface, B_{ii}r; text, B_{ii}r–D_ir; commentary, D_iv–[N_{iv}]r. The last two sentences of the commentary are missing. The text is followed by *Errata*, [N_{iv}]r–[N_{iv}]v.

Basel, Henricus Petri, 1541

'Claudii Ptolemaei Pelusiensis Alexandrini omnia quae extant opera, Geographia excepta, quam seorsim quoque hac forma impressimus. Almagesti seu Magnae compositionis mathematicae opus, a Georgio Trapezuntio tra<ns>latum, lib<ri> XIII. De iudiciis astrologicis, aut, ut vulgo vocant, Quadripartitae constructionis, lib<ri> IIII, quorum priores duo a Ioachimo Camerario latinitate donati sunt, in reliquis emendavimus multa ad veterum exemplarium veritatem, adiectis etiam Graecis, nihil omittentes quo lectio fieret correctior et expeditior. Centum sententiae, quod Centiloquium dicunt, a Ioviano Pontano versae. Inerrantium stellarum significationes per Nicolaum Leonicum traductae. Procli Diadochi hypotyposes astronomicarum positionum, quae est omnium, quae in Almagesto demonstrantur, epitome et compendium, quod ad reminiscentiam conducet plurimum, Georgio Valla Placentino interprete. Ex, in omnibus disciplinis principum virorum, exemplaribus emendavimus Almagesti plurima loca et figuras nonnullas, quas sculptas in primo huius operis limine posuimus, quoniam magnam lucem videbantur allatutae rebus sua natura obscurioribus. Ob quam causam etiam censuimus addendas Lucae Gaurici annotationes. Item omnium constellationum figuras graphice, propter singulare studiosorum commodum, depinximus. Basileae apud Henricum Petrum, mense Martio, anno M.D.XLI.' **Last page:** 'Basileae apud Henricum Petrum, mense Martio, anno M.D.XLI.'

Ptolemy's complete works (except the *Geography*): Hieronymus Gemusaeus, dedicatory letter to 'domino D. Petro a Mornyeu, abbati S. Sulspitii' (a_2r–a_3r); Luca Gaurico, letter to 'clarissimo iuveni D. Dominico Palavicino' (a_3v); ***Ptolemaica* (a_4r–369 and 369–376)**; Proclus, *Hypotyposis astronomicarum positionum* (377–428); ***Ptolemaica* (429–458, 459–500, 500–504 and 505–511)**.

Bibl. VD16 P 5204

Exemplar Munich, Bayerische Staatsbibliothek, Hbks/E 1 n.

a_4r–369 'Ad sanctissimum dominum Sixtum pont<ificem> max<imum>, Andreae Trapezuntii, Georgii filii, in paternam Almagesti Ptolemaei traductionem praefatio. Revolventi mihi nuper libros patris mei, Georgii Trapezuntii, viri optimi et omni doctrinarum genere insignis... (1) Magnae compositionis

Cl<audii> Ptolemaei Alexandrini libri a Georgio Trapezuntio e Graeco conversi. Caput primum. Peroptime mihi videtur, o Syre, qui bene philosophati sunt, speculativam philosophiae partem ab activa separasse — idoneum hic modum ac finem haec est compositio consecuta.'
= **Ptolemy, *Almagesti*, tr. George of Trebizond (A.1.4)**. Andreas of Trebizond's preface to Sixtus IV, a_4r–[a_5]v; chapter index of *Almagest* and of Books I–II of *Quadripartitum*, [a_6]r–b_2r; subject index, b_2r–[b_5]v; table of astrological symbols, [b_6]r; mottoes, [b_6]v; geometrical figures prepared by Johannes Vögelin, c_1r–c_2v; Book I, 1–26; II, 27–62; III, 62–84; IV, 85–111; V, 112–144; VI, 145–175; VII, 176–202; VIII, 203–227; IX, 228–261; X, 262–283; XI, 284–315; XII, 316–337; XIII, 338–369.

369–376 'Gaurici addictiones. [Table] Umbra gnomonis in meridiebus... (370) Tabula ad sciendum latitudines regionum per horas diei prolixioris et econtra... (372) Stellas fixas Ptolemaei ad annum salutis 1530 redigere. Si quispiam omnes stellas fixas Ptolemaei tempore observatas ad nostram hanc tempestatem seu mavis annum Christi 1530 redigere voluerit, ipsarum longitudinibus G. 19, M. 50 adiiciat... (373–376) [Tables of months].'
= **Luca Gaurico, *Additiones in Almagesti* (C.1.25)**.

429–458 'Claudii Ptolemaei mathematici operis libri quatuor, in quibus de iudiciis disseritur, ad Syrum, Ioachimo Camerario interprete. Lib<er> I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima — genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi.'
= **Ptolemy, *Quadripartitum*, tr. Joachim Camerarius (A.2.9)**, Books I–II. I, 429–444; II, 445–458.

459–500 'Lectori. Candide lector, cum anno superiore impresserimus Geographiam Ptolemaei, visum nobis fuit... Claudii Ptolemaei mathematici de iudiciis liber III. Postquam accidentia generalia in his quae ex nostra observatione praemissa sunt — hoc in loco huic libro finem imponere non incongruum existimamus.'
= Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1), Books III–IV. III, 459–484; IV, 484–500.

500–504 'Cl<audii> Ptolemaei Centum dicta sive Fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

505–511 'Claudii Ptolemaei mathematici Inerrantium stellarum significationes per Nicolaum Leonicum e Graceo translatae. Ianuarius. Kal.: Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 10. Capella matutino emergit. Finis.'

= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Nürnberg, Johannes Petreius, 1541

'Tractatus Georgii Peurbachii super propositiones Ptolemaei de sinubus et chordis. Item compositio tabularum sinuum per Ioannem de Regiomonte. Adiectae sunt et tabulae sinuum duplices per eundem Regiomontanum. Omnia tunc primum in utilitatem astronomiae studiosis impressa. Norimbergae apud Iohan<nem> Petreium, anno Christi M.D.XLI.'

Astronomy: Johannes Schöner, dedicatory letter to Hieronymus Schreiber ([A_1]v); ***Ptolemaica* (A_2r–B_1v)**; Regiomontanus, *Compositio tabularum sinuum* (B_2r–C_1r), with tables (C_1v–G_3r).

Bibl. VD16 P 2071; VD16 P 5249; VD16 M 6534; Müller 1998, 197–99, no. 44.

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b. 1013

A_2r–B_1v 'Tractatus sinuum et chordarum Georgii Peurbachii. Sinuum, cordarum et arcuum noticia ad coelestium motuum cognitionem pervalde necessaria existit, ideo de eorum doctrina restat in praesenti perquirendum — Et similiter sciemus quantitates reliquarum chordarum, facilis ergo est secundum praemissorum tenorem chordarum ad suos arcus cognitio.'
= **Georg Peurbach, *Tractatus super propositiones Ptolemei de sinubus et chordis* (C.1.20)**.

Basel, Hieronymus Curio, 1542

'Dictionarium Latinae linguae Ambrosii Calepini Bergomatis, multis variisque ex autoribus collectum, accuratiusque multo quam antehac excusum. Cui certo consilio tabulas adiecimus de ratione usuque XII mensium Romanorum, una cum Cla<udii> Ptolemaei inerrantium stellarum significationibus per Nicolaum Leonicum e Graeco translatis. Ad studiosam iuventutem. En tibi, quod faustum et foelix sit, amica iuventus, / Ambrosii rursus lexica docta damus. / Aucta quidem paucis (necnon nisi vera fatebor) / Aucta tamen, multis atque polita locis. / Ipsa quod advertes, conferre priora molestum / Huic si non operi, quod modo prodit, erit. / Id precor ut facias, namque inde iuvabere multum, et / Pro vigili fueris grata labore mihi. Cum gratia et privilegio regio. Basileae. M.D.XLII.' **Last page:** 'Basileae, per Hieronymum Curionem, mense Augusto, anno M.D.XLII.'

Ambrogio Calepino, Latin dictionary (a_1r–uuuu$_4$v), preceded by Hieronymus Curio's letter to the reader (a_2r), verses 'Eruditi cuiusdam in tabulas sequentes de ratione mensium et inerrantium stellarum ignificationibus carmen: Mensis habet nonas, idus...' (a_2v), and ***Ptolemaica* (a_3r–a_7r)**. The signature a_1–(a_8) is used for the Ptolemaic section and for the beginning of the dictionary. The VD16 website wrongly states that the Ptolemaic section is not included.

Bibl. VD16 C 242

Exemplar Munich, Bayerische Staatsbibliothek, 2 L.lat. 32 d

a_3r–a_7r ‘<Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt> — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliqua desiderantur.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**. Sig. a_3 (containing the months of January and February) is missing in the exemplar. The incipit given here between angular brackets is the standard incipit for this text.

Basel, Henricus Petri, 1543

‘Ioannis de Monte Regio et Georgii Purbachii Epitome in Cl<audii> Ptolemaei Magnam compositionem, continens propositiones et annotationes quibus totum Almagestum, quod sua difficultate etiam doctiorem ingenio quam praestantiore lectorem deterrere consueverat, dilucida et brevi doctrina ita declaratur et exponitur, ut mediocri quoque indole et eruditione praediti sine negotio intelligere possint. Basileae apud Henrichum Petrum.’ **Last page:** ‘Basileae per Henrichum Petrum, mense Augusto, anno M.D.XLIII.’

Ptolemaica (single text), preceded by Hieronymus Gemusaeus’s dedicatory letter to ‘Clarissimo et nobilissimo Heroi D. Ioanni Iacobo a Moersperg et Befort, baroni inclyto, domino in Dattenriet, et domino suo plurimum observando’ (a_2r–[a_4]r) and subject index ([a_4]v–[b_4]v).

Bibl. VD16 M 6534; Müller 1998, 213–14, no. 57.

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 1004 a

1–267 ‘Reverendissimo in Christo patri ac domino domino Bessarioni episcopo Tusculano, sanctae Romanae Ecclesiae cardinali, patriarchae Constantinopolitano, Iohannes de Regio Monte se offert devotissimum. Admiranti mihi saepenumero vel potius graviter et inique serenti tam raros esse aetate nostra optimarum... (5) Cl<audii> Ptolemaei Alexandrini astronomorum principis in Magnam constructionem Georgii Purbachii et Ioannis de Regio Monte demonstrationes. Universalis ambitus totius terrae ad totum coelum considerationes quae necessario praesupponendae erant praemittit, theoremata quoque quae ad sphaericas demonstrationes praemittuntur enarrat, chordarum atque et arcuum tradit doctrinam, ascensiones demum recte sphaere investigat. Liber primus. Ptolemaei autem ad literam exprimere libuit praefationem, tum propter crebras in ea sententias scitu dignissimas, tum propter autoritatem Ptolemaei, quo etiam imitatio nostra fidelior redderetur. Praefatio Recte profecto meo iudicio nobiliores philosophi scire distinxerunt inter theoricam philosophiae et practicam partem — Quod postremo hoc in theoreumate explorare et coepto labori modum statuere decrevimus. Finis.’
= **Johannes Regiomontanus, *Epitome Almagesti* (C.1.21)**. Preface, 1–4; I, 5–25; II, 25–45; III, 46–68; IV, 69–84; V, 84–112; VI, 113–138;

VII, 138–148; VIII, 148–162; IX, 163–185; X, 185–205; XI, 206–226; XII, 226–240; XIII, 241–267.

Cologne, Johannes Gymnicus, 1544

'Georgii Trapezuntii in Claudii Ptolemaei Centum aphorismos commentarius. Eiusdem De antisciis in quorum rationem fata sua reiicit. Item ab eodem Cur astrologorum iudicia plerumque fallant. Nunc primum omnia in lucem edita. Additus est dialogus Ioannis Pontani in quo doctissime disputatur quatenus credendum sit astrologiae. Cum privilegio et gratia quinque annorum. Coloniae Ioan<nes> Gymnicus excudebat, anno MDXVIIII.'

Astrology: dedicatory letter 'Magna fide et eruditione viro, Philippo Bucchamero, amplissimi maximeque reverendi cardinalis dn. Alberti archiepiscopi Moguntini etc., primario medico, Iacobus Curio Hofemianus S. D.' (A_2r–[A_4]r); ***Ptolemaica* ([A_4]v–[K_6]r)**; 'Tabella antisciorum' ([K_6]v–[K_7]r); George of Trebizond, *Liber de antisciis* [[K_7]v–L_4v]; George of Trebizond, *Cur astrologorum iudicia plerumque fallant* (L_5r–[M_6]v); Giovanni Pontano, *Dialogus: Quatenus credendum sit astrologiae* ([M_7]r–[N_6]v).

Bibl. VD16 P 5264

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3084

[A_4]v–[K_6]r 'Georgii Trapezuntii commentaria in Centum aphorismos Claudii Ptolemaei. Librum Claudii Ptolemaei mihi Alfonse rex inclyte traductum quem vulgo Centiloquium ipse fructum appellat... ([A_6]r) Iam pridem perutiles ad praevidendum operationes stellarum, o Syre, quas in hoc composito efficiunt mundo exposuimus... Libellus hic quem de Graeco traductum nomini tuo dedicavimus, illustrissime rex... ([A_8]v) Aphorismus I. Abs te et a scientia, non est enim possibile ut huius scientiae professor particulares rerum ideas praevideat... Abs te, inquit, hoc est a quadam insita vi animi et ingenio et a scientia naturae stellarum praecognitio fit — ut sicut raro apparent, sic inconsueta significare videantur. Commentariorum Trapezuntii in aphorismos Ptolemaei finis.'

= **George of Trebizond, *Commentarii et expositiones in aphorismis Libri fructus Ptolomei* (C.3.11)**, George of Trebizond's preface, [A_4]v–[A_6]r; author's preface, [A_6]r; commentary on author's preface, [A_6]r–[A_8]r; text and commentary in alternating sequence, [A_8]v–[K_6]r.

Lyon, Sebastianus Gryphius, 1545

'P. Ovidii Nasonis Fastorum lib<ri> VI, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in gratiam studiosorum praefiximus. Tristium lib<ri> V. De ponto lib<ri> IIII. Apud Seb<astianum> Gryphium, Lugduni, 1545.'

Classics: ***Ptolemaica* (2–20)**; Ovid's *Fasti* and other works (21-).

Note I have seen only samples of this edition online (title page and sig. 2 and 20–21), but it is likely to be identical to eds Lyon, Sebastianus Gryphius, 1547 and Lyon, Sebastianus Gryphius, 1554, which have the same title page.

Bibl. ---

Exemplar ---

2–20 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Sebastianus Gryphius, 1546

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Apud Seb<astianum> Gryphium, Lugduni, 1546.'

Classics: Ovid's *Fasti* and other works (3–389); letter to the reader, dated Lyon, 17 August 1534 (390); ***Ptolemaica* (bbb$_4$r–[ccc$_4$v])**.

Bibl. ---

Exemplar Lyon, Bibliothèque Municipale, B 509665

bbb$_4$r–[ccc$_4$]v 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Sebastianus Gryphius, 1547

'P. Ovidii Nasonis Fastorum lib<ri> VI, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in graciam studiosorum praefiximus. Tristium lib<ri> V. De ponto lib<ri> IIII. Apud Seb<astianum> Gryphium, Lugduni, 1547.'

Classics: ***Ptolemaica* (2–20)**; Ovid's *Fasti* and other works (21–432).

Bibl. ---

Exemplar Paris, Bibliothèque nationale de France (https://catalogue.bnf.fr/ark:/12148/cb37254000 p.)

2–20 ‘Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1548

‘P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium libri V, De ponto lib<ri> IIII. Item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Basileae.’ **Last page:** ‘Basileae, per Henrichum Petri, anno salutis humanae M.D.XLVIII, mense Martio.’

Classics: Ovid’s *Fasti* and other works (3–465); ***Ptolemaica* (Gg$_1$v–Hh$_2$v)**; *Romanorum menses in veteribus monimentis Romae reperti* (Hh$_3$r–Ii$_1$r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (Ii$_1$v–Ii$_5$v); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* ([Ii$_6$]r–[Kk$_8$]r).

Bibl. VD16 O 1524

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a.997–2

Gg$_1$v–Hh$_2$v ‘Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. Kal. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Martinus Gymnicus, 1548

‘P. Ovidii Nasonis Fastorum libri sex, Tristium libri V, De ponto libri IIII, item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex Ovidii Fastorum sex libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Coloniae, Martinus Gymnicus excudebat, anno M.D.XLVIII.’

Classics: Ovid, *Fasti* (3–160); letter to the reader dated 17 August 1534 (161); ***Ptolemaica* (162–76)**; Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (177–190); Ovid, *Tristia* and *De ponto* (193–413).

Bibl. VD16 ZV 26207

Exemplar Leipzig, Universitätsbibliothek, Poet.lat.630-c/2

162–176 'Clau<dii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al.> Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Leuven, Petrus Phalesius & Martinus Rotarius, 1548

'Cl<audii> Ptolemaei Pelusiensis mathematici operis Quadripartiti in Latinum sermonem traductio adiectis libris posterioribus Antonio Gogava Graviens<e> interprete ad clarissimum principem Maximilianum comitem Burens. Item, De sectione conica, orthogona, quae parabola dicitur, Deque speculo ustorio libelli duo hactenus desiderati restituti ab Antonio Gogava Graviensi. Cum praefatione D. Gemmae Frisii, medici et mathematici clariss<imi>, cum gratia et privil<egio> Lovanii apud Petrum Phalesium ac Martinum Rotarium, anno M.D.XLVIII, mense Octobri.' **Last page:** 'Lovanii excudebat Iacobus Batius typograph. iur.'

Astrology and optics: Gemma Frisius, preface (A_2r); Antonius Gogava, dedicatory letter to Maximilian of Egmond (A_2v–A_3v); ***Ptolemaica* ([A_4]r–[P_3]v)**; Antonius Gogava, letter to the readers ([P_4]r–[P_4]v); Regiomontanus, reworking of Alhazen's *Speculi almukefi compositio* ([P_5]r–[S_2]r, based on MS →Vienna, ÖNB, 5258, f. 27r–35r, ed. Clagett 1964–1984, IV, 203–21); Alhazen, *De speculis comburentibus* ([S_2]r–[T_3]v, based on MS →Vienna, ÖNB, 5258, f. 39r–46v); *Errata* ([T_4]r).

Bibl. S. Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology*, Leiden, 2003, 161 and 177–78; R. S. Westman, *The Copernican Question. Prognostication, Skepticism, and Celestial Order*, Berkeley-Los Angeles-London, 2011, 180.

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b. 1222

[A_4]r–[P_3]v 'Claudii Ptolemaei mathematici operis libri quatuor, in quibus de iudiciis disseritur, ad Syrum lib<er> I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — Hic igitur nobis est temporum contemplandorum modus, genera vero decretorum suis temporibus evenientium congerere hoc loco omittemus, ob illum quem nobis scopum proposuimus cum astrorum afficientia generatim perspecta, partilioribus eventibus accommodari iusta ratione possit, si mathematici causam erudite cum ea quae extemperatura nascitur, comparemus. Finis libri quarti.'
= **Ptolemy, *Quadripartitum*, tr. Antonius Gogava (A.2.10)**. Book I, [A_4]r–E_2r; II, E_2v–H_2v; III, [H_3]r–N_1v; IV, N_2r–[P_3]v.

Wittenberg, Johannes Lufft, 1549

'Ptolemaei Mathematicae constructionis Liber primus graece et latine editus. Additae explicationes aliquot locorum ab Erasmo Rheinholt Salvendensi. Wittebergae, ex officina Iohannis Lufft, anno 1549.'

Philipp Melanchthon, Greek verses ([A_1]v); Erasmus Reinhold, dedicatory letter to Christoph von Karlowitz (A_2r–[A_8]v); Ptolemy, *Almagest*, Book I, Greek (1r–43r); ***Ptolemaica* (44r–123r)**; Philipp Melanchthon, Latin verses (123v); *Errata* ([124]v).

Bibl. VD16 P 5201; Müller 1998, 210–11, no. 54.

Exemplar Munich, Bayerische Staatsbibliothek, ESlg/A.gr.b. 3072

44r–123r 'Primus liber Magnae constructionis Ptolemaei. (45r) Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa — in qua aequinoctialis nusquam ad horizontem inclinat. Ad lectorem studiosum. Deo iuvante in proxima aeditione hanc institutam explicationem nostram rudiorem perpoliemus, et adiungemus reliqua ex Theone, quae ad Ptolemaei sententiam penitus intelligendam aliquid momenti adferunt, interea bene vale et hisce feliciter fruere. Laus Deo.'
= **Ptolemy, *Almagesti*, tr. Erasmus Reinhold (A.1.5)**, Book I.

Basel, Jacobus Parcus, 1550

'Guidonis Bonati Foroliviensis mathematici de astronomia tractatus X, universum quod iudiciariam rationem nativitatum, aeris, tempestatum, attinet, comprehendentes. Adiectus est Cl<audii> Ptolemaei Fructus cum commentariis utilissimis Georgii Trapezuntii. Basileae, anno M.D.L.'

Astrology: Nicolaus Pruckner, letter 'Generoso domino Gulielmo Pageto, baroni et regio contrarollario, domino suo s.' ([†$_1$]v); chapter index of Bonatti (†$_2$r–[†$_8$]r); Guido Bonatti, *Liber introductorius ad iudicia stellarum*, Books I–VI (I/1–848); ***Ptolemaica* (II/1–62)**.

Bibl. VD16 B 6552

Exemplar Munich, Bayerische Staatsbibliothek, Res/2 Astr.p. 6 m

II/1–62 'Cl<audii> Ptolemaei Centiloquium sive Aphorismi a Georgio Trapezuntio ex Graeco in Latinum versi et commentariis illustrati. (3) Georgius Trapenzuntius Alfonso regi Arragonum Neapoli et Siciliae S. D. Librum Claudii Ptolemaei mihi (Alfonse rex inclyte) traductum quem vulgo Centiloquium ipse fructum appellat… (5) Cl<audii> Ptolemaei aphorismi. Prooemium. Iam pridem perutiles ad praevidendum operationes stellarum, o Syre, quas in hoc composito mundo efficiunt exposuimus… Libellus hic quem de Graeco traductum nomini tuo dedicavimus, illustrissime rex… (6) Aphorismus I. Abs te et a scientia, non est enim possibile ut huius scientiae professor particulares rerum ideas praevideat… (7) Abs te, inquit,

hoc est a quadam insita vi animi et ingenio et a scientia naturae stellarum praecognitio fit — ut sicut raro apparent, sic inconsueta significare videantur. Finis.'

= **George of Trebizond, *Commentarii et expositiones in aphorismis Libri fructus Ptolomei* (C.3.11)**. George of Trebizond's preface, 3; author's preface, 5–6; commentary on author's preface, 5–6; text and commentary in alternating sequence, 6–62.

Nürnberg, Johannes Montanus & Ulricus Neuberus, 1550

'In Ptolemaei Magnam compositionem, quam Almagestum vocant, libri tredecim conscripti a Ioanne Regiomontano mathematico clarissimo. In quibus universa doctrina de coelestibus motibus, magnitudinibus, eclipsibus etc. in epitomen redacta proponitur. Noribergae apud Ioannem Montanum et Ulricum Neuberum, anno M.D.L.'

Ptolemaica (single text), preceded by 'Poema de Cl<audii> Ptolemaei Aegiptii opere astronomico, librorum eiusdem tractationes et summam continens' ([A_1]v) and Erasmus Flock's dedicatory letter to 'Doctrina et virtute ornatissimo viro, domino Ioanni Olhaffen, iureconsulto et patricio Noribergensi, domino et fautori suo observando' (A_2r–A_3v).

Bibl. VD16 M 6535

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b. 1005

A_4r–[T_{vi}]v 'Cl<audii> Ptolemaei Alexandrini astronomorum principis εισ μεγαλην σινταξιν, id est in Magnam constructionem Georgii Purbachii, eiusque discipuli Iohannis de Regio Monte Astronomica epitome. Reverendissimo in Christo patri ac domino domino Bessarioni episcopo Tusculano, sanctae Romanae Ecclesiae cardinali, patriarchae Constantinopolitano, Iohannes Germanus de Regio Monte se offert devotissimum. Admiranti mihi saepenumero vel potius graviter et inique serenti tam raros esse aetate nostra optimarum... (B_1r) Epitomes Ioannis de Monteregio in Almagestum Ptolomaei liber primus. Liber primus universalis ambitus totius terrae ad totum coelum considerationes quae necessario praesupponende erant praemittit, theoremata quoque quae ad sphaericas demonstrationes praemittuntur enarrat, chordarum atque arcuum tradit doctrinam, ascensiones demum recte sphaerae investigat. Praefatio. Recte profecto meo iudicio nobiliores philosophi scire distinxerunt inter theoricam philosophiae et practicam partem — Quod postremo hoc in theoreumate explorare et coepto labori motum statuere decrevimus. Finis.'

= **Johannes Regiomontanus, *Epitome Almagesti* (C.1.21)**. Preface, A_4r–[A_5]r; 'Io. Lu. Ad lectorem',[A_5]v; 'Epigramma Michaelis Lindeneri... in Cl<audii> Ptolemaei Compositionem magnam ad astrologiae studiosos', [A_6]r; I, B_ir–C_{iii}r; II, C_{iii}v–[D_{vi}]r; III, [D_{vi}]v–F_{iii}v; IV, F_{iiii}r–[G_{iiii}]r; V, [G_{iiii}]v–I_{iii}r; VI, I_{iii}v–L_iv; VII, L_{ii}r–[L_{vi}]r; VIII, [L_{vi}]v–[M_{vi}]r; IX, [M_{vi}]v–O_{iii}v; X, O_{iiii}r–[P_{vi}]r; XI, [P_{vi}]v–R_{ii}r; XII, R_{ii}v–S_{ii}r; XIII, S_{ii}r–[T_{vi}]v.

Basel, Henricus Petri, 1551

'Claudii Ptolemaei Pelusiensis Alexandrini omnia quae extant opera, praeter Geographiam, quam non dissimili forma nuperrime aedidimus: summa cura & diligentia castigata ab Erasmo Osvaldo Schrekhenfuchsio, & ab eodem Isagoica in Almagestum praefatione, & fidelissimis in priores libros annotationibus illustrata, quemadmodum sequens pagina catalogo indicat. Basileae.' **Last page:** 'Basileae in officina Henrichi Petri mense Martio, anno M.D.LI.'

Ptolemy's complete works (except the *Geography*): table of contents ([††1]v); Erasmus Oswald Schreckenfuchs, dedicatory letter to Wolfgang von Grünenstein, abbot of Kempten (††2r–††3r); Luca Gaurico, letter to 'clarissimo iuveni D. Dominico Palavicino' (††3v); ***Ptolemaica* (††4r–326 and 326–332)**; Proclus, *Hypotyposis astronomicarum positionum* (333–78); ***Ptolemaica* (379–403, 404–438, 438–442 and 442–447)**.

Bibl. VD16 P 5205; Müller 1998, 212–13, no. 55.

Exemplar Vienna, Österreichische Nationalbibliothek, 7.C.31.(Adl)

††4r–326 'Ad sanctissimum dominum Sixtum pont<ificem> max<imum>, Andreae Trapezuntii, Georgii filii, in paternam Almagesti Ptolemaei traductionem praefatio. Revolventi mihi nuper libros patris mei, Georgii Trapezuntii, viri optimi et omni doctrinarum genere insignis... (a_1r) Erasmi Osvaldi Schrekhenfuchsii ad lectorem praefatio, qua Claud<ii> Ptolemaei in Almagesto difficiliora explicantur. In primis duobus libris, optime lector, breviusculis annotationibus... (b_1r) Eras<mi> Osvaldi Schrekhenfuchsii in Magnae compositionis Cl<audii> Ptolemaei Pelusiensis Alexandrini libri I annotationes. Caput II. Propositi autem] In hoc capite proponitur totius Almagesti series ac ordo... (1) Magnae compositionis Cl<audii> Ptolemaei Alexandrini libri a Georgio Trapezuntio e Graeco conversi. Caput primum. Peroptime mihi videtur, o Syre, qui bene philosophati sunt, speculativam philosophiae partem ab activa separasse — idoneum hic modum ac finem haec est compositio consecuta.'
= **Ptolemy, *Almagesti*, tr. George of Trebizond (A.1.4)**. Andreas of Trebizond's preface to Sixtus IV, ††4r–[††5]v; table of astrological symbols, [††6]r; mottoes, [††6]v; chapter index of *Almagest* and of Books I–II of *Quadripartitum*, *1r–*3r; subject index, *3r–[*6]v; Erasmus Oswald Schreckenfuchs, *Annotationes in Almagesti priores tres libros* (C.1.29), a_1r–f_4v (see below); Book I, 1–24; II, 24–56; III, 56–76; IV, 76–99; V, 100–127; VI, 128–155; VII, 155–179; VIII, 180–202; IX, 203–234; X, 234–252; XI, 252–279; XII, 280–298; XIII, 299–326.

a_1r–f_4v 'Erasmi Osvaldi Schrekhenfuchsii ad lectorem praefatio, qua Claud<ii> Ptolemaei in Almagesto difficiliora explicantur. In primis duobus libris, optime lector, breviusculis annotationibus... (b_1r) Eras<mi> Osvaldi Schrekhenfuchsii in Magnae compositionis Cl<audii> Ptolemaei Pelusiensis Alexandrini libri I annotationes. Caput II. Propositi autem] In hoc capite proponitur totius Almagesti series ac ordo — (f_3v) 219 dierum, 17 horarum et 58 min<utorum>

hactenus de hoc capite. Eras<mi> Osvaldi Schrekhenfuchsii in Almagesti priores tres libros annotationum finis' (followed by two astronomical figures, f_4r–f_4v).
= **Erasmus Oswald Schreckenfuchs, *Annotationes in Almagesti priores tres libros* (C.1.29)**, inserted into the Ptolemaic section above. *Praefatio ad lectorem*, a_1r–[a_6]r; Book I, b_1r–c_4v; II, c_4v–d_3v; III, d_3v–f_3v; two appended figures, f_4r–f_4v.

326–332 '[Table] Umbra gnomonis in meridiebus... (327) Tabula ad sciendum latitudines regionum per horas diei prolixioris et econtra... (329) Stellas fixas Ptolemaei ad annum salutis 1530 redigere. Si quispiam omnes stellas fixas Ptolemaei tempore observatas ad nostram hanc tempestatem seu mavis annum Christi 1530 redigere voluerit, ipsarum longitudinibus G. 19, M. 50 adiiciat... (330–32) [Tables of months].'
= **Luca Gaurico, *Additiones in Almagesti* (C.1.25)**.

379–403 'Claudii Ptolemaei mathematici operis libri quatuor, in quibus de iudiciis disseritur, ad Syrum, Ioachimo Camerario interprete. Lib<er> I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima — genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur.'
= **Ptolemy, *Quadripartitum*, tr. Joachim Camerarius (A.2.9)**. Books I–II. I, 379–392; II, 392–403.

404–438 'Claudii Ptolemaei mathematici de iudiciis liber tercius. Postquam accidentia generalia in his quae ex nostra observatione praemissa sunt — hoc in loco huic libro finem imponere non incongruum existimamus.'
= **Ptolemy, Quadripartitum, tr. Plato of Tivoli (A.2.1)**, Books III–IV. III, 404–425; IV, 425–438.

438–442 'Cl<audii> Ptolemaei Centum dicta sive Fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

442–447 'Cla<udii> Ptolemaei mathematici Inerrantium stellarum significationes per Nicolaum Leonicum e Graceo translatae. Ianuarius. Kal.: Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 10. Capella matutino emergit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1551

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium libri V, De ponto lib<ri> IIII, item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae.

XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Basileae, 1551.' **Last page:** 'Basileae, per Henrichum Petri, anno salutis humanae M.D.LI, mense Augusto.'

Classics: Ovid's *Fasti* and other works (3–465); ***Ptolemaica* (Gg$_1$v–Hh$_2$v)**; *Romanorum menses in veteribus monimentis Romae reperti* (Hh$_3$r–Ii$_1$r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (Ii$_1$v–Ii$_5$v); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* ([Ii$_6$]r–[Kk$_8$]r).

Bibl. VD16 O 1529

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a.998–2

Gg$_1$v–Hh$_2$v 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. Kal. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.' = **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Johannes Hervagius, 1551

'Iulii Firmici Materni iunioris siculi V. C. ad Mavortium Lollianum astronomicῶn libri VIII per Nicolaum Prucknerum astrologum nuper ab innumeris mendis vindicati. His accesserunt Claudii Ptolemaei Pheludiensis Alexandrini ἀποτελεσμάτων, quod Quadripartitum vocant, lib<ri> IIII. De inerrantium stellarum significationibus lib<er> I. Centiloquium eiusdem. Ex Arabibus et Chaldaeis: Hermetis vetustissimi astrologi centum aphoris<morum> lib<er> I. Bethem Centiloquium. Eiusdem de horis planetarum liber alius. Almanzoris astrologi propositiones ad Saracenorum regem. Zahelis Arabis de electionibus lib<er> I. Messahalah de ratione circuli et stellarum, et qualiter in hoc seculo operentur lib<er> I. Omar de nativitatibus lib<ri> III. Marci Manilii poetae dissertissimi astronomicῶn lib<ri> V. Postremo, Othonis Brunfelsii de diffinitionibus et terminis astrologiae libellus isagogicus. Basileae, per Ioannem Hervagium, anno salutis humanae M.D.LI, mense Aprili.' **Last page:** 'Basileae, ex officina Ioannis Hervagii, anno salutis humanae M.D.LI, mense Aprili.'

Astrology: Nicolaus Pruckner, dedicatory letter to Otho Brunfelsius (I/a$_2$r–a$_3$v); Otho Brunfelsius, *De diffinitionibus et terminis astrologiae libellus* (I/a$_4$r–[a$_6$]v); Firmicus Maternus, *Mathesis* (I/1–244); ***Ptolemaica* (II/1–74, 74–78 and 79–84)**; Hermes, *Centiloquium* (II/85–89); Bethen, *Centiloquium* (II/89–93); *Capitula Almansoris* (II/93–110); Bethen, *De horis planetarum* (II/110–112); Zael, *De electionibus* (II/112–114); Messahallah, *Epistola de rebus eclipsium* (II/115–118); Aomar, *De nativitatibus* (II/118–141); astrological notes (II/141–143); Manilius, *Astronomica* (II/144–224); chapter index to Firmicus Maternus's *Mathesis* (225–227).

Bibl. VD16 F 1120

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.lat.b. 338

II/1–74 'Cl<audii> Ptolomaei Pheludiensis Alexandrini Quadripartitum. Prooemium. Rerum, Iesure, in quibus est pronosticabilis scientiae stellarum perfectio magnas et praecipuas duas esse deprehendimus — hoc in loco huic libro finem imponere non incongruum existimamus.'
= **Ptolemy, *Quadripartitum*, tr. Plato of Tivoli (A.2.1)**. I, 1–21; II, 21–36; III, 36–60; IV, 60–74.

II/74–78 'Cl<audii> Ptolomaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

II/79–84 'Cl<audii> Ptolomaei Inerrantium stellarum significationes per Nicolaum Leonicum a Graceo translatae. Ianuarius. K<al.>: Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Joannes Oporinus, 1553

'Claudii Ptolemaei de praedictionibus astronomicis, cui titulum fecerunt Quadripartitum, graece et latine, libri IIII, Philippo Melanthone interprete. Eiusdem Fructus librorum suorum sive Centum dicta ex conversione Ioviani Pontani. Cum gratia et privilegio ad quinquennium. Basileae, per Ioannem Oporinum.' **Last page:** 'Basileae, ex officina Ioannis Oporini, anno salutis humanae M.D.LIII, mense Augusto.'

Ptolemy's astrological works in Latin (Part I) and Greek (Part II): Philipp Melanchthon, dedicatory letter to Erasmus Ebner (I/[3]–9); ***Ptolemaica* (I/10–251 and I/252–269)**; Joachim Camerarius, dedicatory letter to Albrecht of Brandenburg (II/α_2r–α_5v); Ptolemy, *Tetrabiblos*, Greek (II/2–212); Pseudo-Ptolemy, *Karpos*, Greek (II/213–229).

Bibl. VD16 P 5249; VD16 M 6534; Müller 1998, 295–97, no. 123.

Exemplar Munich, Bayerische Staatsbibliothek, Res/A.gr.b. 3075

I/10–251 'Claudii Ptolemaei mathematici operis de iudiciis astrologicis libri quatuor Philippo Melanthone interprete. Liber primus. Duo sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita,

particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis. Finis.'
= **Ptolemy, *Quadripartitum*, tr. Philipp Melanchthon (A.2.11)**. Book I, 10–68; II, 68–120; III, 120–204; IV, 204–251.

I/252–269 'Cl<audii> Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Basel, Henricus Petri, 1554

'Hieronymi Cardani Mediolanensis medici et philosophi praestantissimi in Cl<audii> Ptolemaei Pelusiensis IIII de astrorum iudiciis aut, ut vulgo vocant, Quadripartitae constructionis, libros commentaria, quae non solum astronomis et astrologis, sed etiam omnibus philosophiae studiosis plurimum adiumenti adferre poterunt. Nunc primum in lucem aedita. Praeterea, eiusdem Hier<onymi> Cardani geniturarum XII et audita mirabilia et notata digna et ad hanc scientiam recte exercendam observata utilia exempla. Atque alia multa quae interrogationibus et electionibus praeclare serviunt, vanaque a veris recte secernunt. Ac denique eclipseos quam gravissima pestis subsecuta est exemplum. Basileae.' **Last page:** 'Excudebat Basileae Henrichus Petri, mense Martio, anno MDLIIII.'

Girolamo Cardano's astrological works: dedicatory letter to John Hamilton (a_2r–a_3v); ***Ptolemaica* (a_4r–363)**; *Geniturarum exempla* (401–498); *De interrogationibus libellus* (499–513). This volume contains no pages numbered 364–400.

Bibl. VD16 P 5255

Exemplar Augsburg, Staats- und Stadtbibliothek, 2 LG 69

a_4r–363 'Hieronymi Cardani Mediolanensis medici in Ptolemaei librorum de iudiciis astrorum commentaria prooemium. Semper mos ille viguit, ut qui imperitissimus esset, bonis omnibus artibus malediceret... ([a_5]v) Hieronymi Cardani Mediolanensis medici in commentaria astronomica ad pium lectorem praefatio. His nugonibus qui artem ipsam vanitatis aut impietatis perperam accusant... (b_1r) (Subject index). (1) Claudii Ptolemaei Pelusiensis libri quatuor de astrorum iudiciis cum expositione Hieronymi Cardani Mediolanensis medici. Prooemium expositoris. Libros hos antiquorum more de iudiciis inscripsit Ptolemaeus Pelusiensis Aegyptius, unde Alexandrinus etiam dictus est... (3) Prooemium authoris. Cap<ut> I. Textus I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima... Commentarius. Authores prooemia faciunt, ut quod non ex arte est ad artem tamen est necessarium explicetur — atque in his exactam potius cognitionem quam fortunae comparationem secutus sum. Quaedam etiam

pro usu secundi libri et scientia futurorum generalium eventuum tametsi exigua et brevia adieci. Vale antistes optime et vive felix. Hieronymi Cardani medici Mediolanensis expositionum in Cl<audii> Ptolemaei libr<os> IIII De iudiciis finis.'
= **Girolamo Cardano, *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24)**. General preface, a_4r–[a_5]r; preface to the reader, [a_5]v–[a_6]v; subject index, b_1r–[b_4]v; commentator's preface, 1–2; Book I, 3–97; II, 98–197; III, 198–288; IV, 289–363.

Lyon, Sebastianus Gryphius, 1554

'P. Ovidii Nasonis Fastorum lib<ri> VI, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in graciam studiosorum praefiximus. Tristium lib<ri> V. De ponto lib<ri> IIII. Apud Seb<astianum> Gryphium, Lugduni, 1554.'

Classics: ***Ptolemaica* (2–20)**; Ovid's *Fasti* and other works (21–429).

Bibl. ---

Exemplar Paris, Bibliothèque nationale de France (https://catalogue.bnf.fr/ark:/12148/cb37230104z)

2–20 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Gualtherus Fabricius, 1555

'P. Ovidii Nasonis Fastorum libri sex, quibus accessere Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex Ovidii Fastorum sex libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Coloniae Agrippinae, excudebatur Gualthero Fabricio IV.L., anno M.D.LV.'

Classics: Ovid, *Fasti* (3–160); letter to the reader dated 17 August 1534 (161); ***Ptolemaica* (162–176)**; Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (177–190). Two items listed on the front page are not found in this edition: 'XII Romanorum menses...' and 'Sex priorum mensium...'

Bibl. VD16 O 1615

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a. 2614 g

162–176 ‘Clau<dii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al.> Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Theobaldus Pagandus, 1555

‘Hieronymi Cardani Mediolanensis medici et philosophi praestantissimi in Cl<audii> Ptolemaei Pelusiensis IIII de astrorum iudiciis aut, ut vulgo vocant, Quadripartitae constructionis, libros commentaria, quae non solum astronomis et astrologis, sed etiam omnibus philosophiae studiosis plurimum adiumenti adferre poterunt. Nunc recens castigatissime in lucem edita. Praeterea, eiusdem Hier<onymi> Cardani geniturarum XII et audita mirabilia et notata digna et ad hanc scientiam recte exercendam observata utilia exempla. Atque alia multa quae interrogationibus et electionibus praeclare serviunt, vanaque a veris recte secernunt. Ac denique eclipseos quam gravissima pestis subsecuta est exemplum. Lugduni, apud Theobaldum Pagandum, 1555.’

Girolamo Cardano’s astrological works: dedicatory letter to John Hamilton (A^*_2r–A^*_4r); ***Ptolemaica* (I/A^*_4v–815)**; *Geniturarum exempla* (II/1–180); *De interrogationibus libellus* (II/181–208).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3086

I/A^*_4v–815 ‘Hieronymi Cardani Mediolanensis medici in Ptolemaei librorum de iudiciis astrorum commentaria prooemium. Semper mos ille viguit, ut qui imperitissimus esset, bonis omnibus artibus malediceret… ([A^*_7]r) Hieronymi Cardani Mediolanensis medici in commentaria astronomica ad pium lectorem praefatio. His nugonibus qui artem ipsam vanitatis aut impietatis perperam accusant… (B^*_1r) (Subject index). (1) Claudii Ptolemaei Pelusiensis libri IIII de astrorum iudiciis cum expositione Hieronymi Cardani Mediolanensis medici. Prooemium expositoris. Libros hos antiquorum more de iudiciis inscripsit Ptolemaeus Pelusiensis Aegyptius, unde Alexandrinus etiam dictus est… (5) Prooemium authoris. Caput primum. Textus I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima… Commentarius. Authores prooemia faciunt, ut quod non ex arte est ad artem tamen est necessarium explicetur — atque in his exactam potius cognitionem quam fortunae comparationem secutus sum. Quaedam etiam pro usu secundi libri et scientia futurorum generalium eventuum tametsi exigua et brevia adieci. Vale antistes optime et vive felix. Hieronymi Cardani medici Mediolanensis expositionum in Cl<audii> Ptolemaei libr<os> IIII De iudiciis finis.’

= **Girolamo Cardano, *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24)**. General preface, A^*_4v–[A^*_6]v; preface to the reader, [A^*_7]r–[A^*_8]v; subject index, B^*_1r–[B^*_8]v; commentator's preface, 1–3; Book I, 5–219; II, 220–445; III, 446–647; IV, 648–815.

Basel, Henricus Petri, 1556

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium libri V, De ponto lib<ri> IIII, item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Basileae.' **Last page:** 'Basileae, per Henrichum Petri, anno M.D.LVI, mense Martio.'

Classics: Ovid's *Fasti* and other works (3–465); ***Ptolemaica* (Gg$_1$v–Hh$_2$v)**; *Romanorum menses in veteribus monimentis Romae reperti* (Hh$_3$r–Ii$_1$r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (Ii$_1$v–Ii$_5$v); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* ([Ii$_6$]r–[Kk$_8$]r).

Bibl. VD16 ZV 22825

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, AB 44 21/i

Gg$_1$v–Hh$_2$v 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. Kal. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Paris, Gulielmus Cavellat, 1556

'Ptolemaei Mathematicae constructionis Liber primus. Additae explicationes aliquot locorum ab Erasmo Rheinholt Salvendensi. Lutetiae, apud Gulielmum Cavellat, in pingui Gallica, ex adverso collegii Cameracensis, 1556.'

Philipp Melanchthon, Greek verses ([a$_i$]v); Erasmus Reinhold, dedicatory letter to Christoph von Karlowitz (a$_{ii}$r–[a$_{viii}$]v); ***Ptolemaica* (1r–76v)**.

Bibl. ---

Exemplar Augsburg, Staats- und Stadtbibliothek, LG 1150#(Beibd.

1r–76v 'Ptolemaei Mathematicae constructionis liber primus. Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa — in qua aequinoctialis nusquam ad horizontem inclinat. Finis.'
= **Ptolemy, *Almagesti*, tr. Erasmus Reinhold (A.1.5)**, Book I.

Paris, Gulielmus Cavellat, 1556

'Claudii Ptolemaei Mathematicae constructionis liber secundus Latina interpretatione recens donatus. Ad Io<hannem> Magnenium medicum et regium mathematicae scientiae professorem. Lutetiae, apud Gulielmum Cavellat, in pingui Gallica, ex adverso collegii Cameracensis.'

Ptolemaica (single text).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3080–1/2

2r–63r 'St<ephanus> Gracilis Io<hanni> Magnenio medico longe praestantiss. et mathematicae scientiae regio apud Lutetiam professori. S. D. Magna certe tua laus est, Magneni doctiss<imi> qui summum semper studium — (4r) de re tota arbitratu iudicioque tuo statuas. Vale. Lutetiae, idibus Aprilis 1556. (4v) Argumentum huius libri in sua capita distinctum. De universo situ terrae... (5r) Claudii Ptolemaei Mathematicae constructionis liber secundus. De universo situ terrae, quae a nobis incolitur. Caput I. His primo constructionis huius libro exposuis, quae de universi habitudine summatim anticipanda errant — (62r) quaesitus fuerit locus, sin occidenti, imminutio. (62v) St<ephanus> Gracilis lectori ingenuo. Accipe igitur, candide lector, hanc menstrui sane laboris lucubratiunculam — temere mutandum decernat. Vale' (followed by *Errata*, sig. 63r).
= **Ptolemy, *Almagesti*, tr. Stephanus Gracilis (A.1.6)**, Book II. Translator's preface, 2r–4r; chapter index, 4v; Book II, 5r–62r; translator's note to the reader, 62v; *Errata*, 63r. The signature of the last folia is erratic (e.g. sig. 57r given as '51', 58r = '57', 59r = '53', 60r = '59', 61r = '55', 62r = '61'), but the folia concerned are in the correct order.

Paris, Gulielmus Cavellat, 1557

'Ptolemaei Mathematicae constructionis Liber primus. Additae explicationes aliquot locorum ab Erasmo Rheinholt Salvendensi. Lutetiae, apud Gulielmum Cavellat, in pingui Gallica, ex adverso collegii Cameracensis, 1557.'

Philipp Melanchthon, Greek verses ([a_i]v); Erasmus Reinhold, dedicatory letter to Christoph von Karlowitz (a_{ii}r–[a_{viii}]v); ***Ptolemaica*** **(1r–76v)**.

Bibl. ---

Exemplar Unknown (Google Books, source not given).

1r–76v 'Ptolemaei Mathematicae constructionis liber primus. Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa — in qua aequinoctialis nusquam ad horizontem inclinat. Finis.'
= **Ptolemy, *Almagesti*, tr. Erasmus Reinhold (A.1.5)**, Book I.

Venice, Paulus Manutius Aldi, 1558

'Ptolemaei Planisphaerium. Iordani Planisphaerium. Federici Commandini Urbinatis in Ptolemaei Planisphaerium commentarius. In quo universa scenographices ratio quam brevissime traditur ac demonstrationibus confirmatur. Aldus. Venetiis, M.D.LVIII.' **Part II**: 'Federici Commandini Urbinatis in Planisphaerium Ptolemaei commentarius. Aldus. Venetiis, M.D.LVIII.' **Last page:** 'Aldus'.

Astronomy: Federico Commandino, dedicatory letter to Cardinal Ranuccio Farnese (I/A_2r–[A_3]v); ***Ptolemaica* (I/1r–25v)**; Jordanus de Nemore, *De plana spera* (I/26r–37v); ***Ptolemaica* (II/2r–28r)**.

Bibl. EDIT16: CNCE 28281

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b. 1221

I/1r–25v 'Claudii Ptolemaei sphaerae aplanetis proiectio in planum. Cum sit possibile, o Syre, et plurimum necessarium ut in plano repraesententur circuli in sphaeram corpoream incidentes — cum ipsis circulis tropicis et cum circulis meridianis signa distinguentibus. Facta est translatio haec Tolosae cal. Iunii anno domini MCXLIIII.'
= **Ptolemy, *Planispherium*, tr. Hermann of Carinthia (A.6.1)**, Class I, without the translator's preface.

II/2r–28r '(2r) Federici Commandini Urbinatis in Planisphaerium Ptolemaei commentarius. In hoc libro rationem tradit Ptolemaeus qua circulos omnes sphaerae caelestis in plano describere possimus... Figuram visam quemadmodum appareat in proposito plano describere — circulos pariter secamus, unde stellarum loca certissima ratione deprehenduntur.'
= **Federico Commandino, *In Planisphaerium Ptolemaei commentarius* (C.4.5)**.

Basel, Henricus Petri, 1559

'ΕΙΣ ΤΗΝ ΤΕΤΡΑΒΙΒΛΟΝ ΤΟΥ ΠΤΟΛΕΜΑΙΟΥ ΕΞΗΓΗΤΗΣ ΑΝΩΝΥΜΟΣ. In Claudii Ptolemaei Quadripartitum enarrator ignoti nominis, quem tamen Proclum fuisse quidam existimant. Item ΠΟΡΦΥΡΙΟΥ ΦΙΛΟΣΟΦΟΥ ΕΙΣΑΓΩΓΗ ΕΙΣ ΤΗΝ αποτελεσματικην του Πτολεμαιου. Porphyrii philosophi introductio in Ptolemaei Opus de effectibus astrorum. Praetera Hermetis philosophi De revolutionibus nativitatum libri duo, incerto interprete. Basileae. Cum gratia et privilegio Caes<aris> maiest<atis>.' **Last page:** 'Ex officina Petriana, anno M.D.LIX, mense Septembri.'

Astrology: publisher's letter to the reader (a_2r–a_2v, ed. Heilen/Zäh, 121–24); subject index (a_3r–[b_5]v); *Errata* ([b_6]r); ***Ptolemaica* (1–180)**; publisher's letter to the reader (180, ed. Heilen/Zäh, 124); ***Ptolemaica* (181–204)**; Albumasar, *De revolutionibus nativitatum*, attr. Hermes (205–279).

Bibl. VD16 P 5250; S. Heilen, H. Zäh, 'Who Edited and Who Translated the Anonymous Commentary to Ptolemy's *Tetrabiblos* and (Ps.-)Porphyry's *Isagoge* (Basel 1559)?', *MHNH* 20 (2020), 93–128.

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.b. 886#Beibd.1

1–180 'Enarrator ignoti nominis in Claudii Ptolemaei quatuor libros De iudiciis, anonymo interprete. In exordio Ptolemaeus contra eos disputat, qui astrologiam artem esse negant, eamque demonstrare volunt — etiam angulis e substractione ascensionum regulae rectae sphaerae, initia omnum angulorum sumus habituri. Finis enarrationis Quadripartiti mathematici Ptolemaei Claudii.'
= ***Ennaratio in Claudii Ptolemaei quatuor libros De iudiciis*, tr. Hieronymus Wolf (C.2.12.2)**, together with the Greek text in two columns. Book I, 1–52; II, 53–85; III, 86–145; IV, 146–180. Several pages have a wrong signature.

181–204 'Porphyrii philosophi Introductio in Claudii Ptolemaei Opus de effectibus astrorum. Praefatio. Quia doctrinam de temperatura coelestium corporum et effectuum genera per illam doctrinam observata — Venus et Mercurius 14, 7 ante et totidem post. Finis.'
= **Pseudo-Porphyry, *Introductio in Claudii Ptolemaei Opus de effectibus astrorum*, tr. Hieronymus Wolf (C.2.25.1)**, together with the Greek text in two columns.

Basel, Henricus Petri, 1560

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium libri V, De ponto lib<ri> IIII, item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Basileae.' **Last page:** 'Basileae, per Henrichum Petri, anno salutis humanae M.D.LX, mense August<o>.'

Classics: Ovid's *Fasti* and other works (3–465); ***Ptolemaica* (Gg_1v–Hh_2v)**; *Romanorum menses in veteribus monimentis Romae reperti* (Hh_3r–Ii_1r); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (Ii_1v–Ii_5v); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* ([Ii_6]r–[Kk_8]r).

Bibl. VD16 ZV 30813

Exemplar Berlin, Staatsbibliothek Preussischer Kulturbesitz, Wi 5900

Gg_1v–Hh_2v 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. Kal. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Gualtherus Fabricius, 1560

'P. Ovidii Nasonis Fastorum libri sex, quibus accessere Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex Ovidii Fastorum sex libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Coloniae Agrippinae, excudebatur Gualthero Fabricio IV.L., anno M.D.LX.'

Classics: Ovid, *Fasti* (3–160); letter to the reader dated 17 August 1532 (161); ***Ptolemaica* (162–176)**; Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (177–190). Two items listed on the front page are not found in this edition: 'XII Romanorum menses…' and 'Sex priorum mensium…'

Bibl. VD16 O 1616

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a. 1001 a#Beibd.3

162–176 'Clau<dii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al.> Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.' = **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Paris, Gulielmus Cavellat, 1560

'Ptolemaei Mathematicae constructionis Liber primus. Additae explicationes aliquot locorum ab Erasmo Rheinholt Salvendensi. Lutetiae, apud Gulielmum Cavellat, in pingui Gallica, ex adverso collegii Cameracensis, 1560.'

Philipp Melanchthon, Greek verses ([a_i]v); Erasmus Reinhold, dedicatory letter to Christoph von Karlowitz (a_{ii}r–[a_{viii}]v); ***Ptolemaica* (1r–76v)**.

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3080–1/2

1r–76v 'Ptolemaei Mathematicae constructionis liber primus. Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa — in qua aequinoctialis nusquam ad horizontem inclinat. Finis.' = **Ptolemy, *Almagesti*, tr. Erasmus Reinhold (A.1.5)**, Book I.

Basel, Henricus Petri, 1561

'Ioannis Regiomontani mathematici praestantissimi De triangulis planis et sphaericis libri quinque, una cum tabulis sinuum in quibus tota ipsorum triangulorum scientia ex primis fundamentis geometricarum ἀποδείξεων absolutissime extructa continetur. Quam multiplicem usum haec triangulorum doctrina omnibus legitime philosophantibus adferat non solum ad expedite absolvendas, quaecunque in locis terrestribus ac maritimis occurrant, dimensiones,

sed etiam ad intelligendos fontes eius disciplinae, quae extructa est a Ptolemaeo et Copernico De revolutionibus orbium caelestium, qui sana rerum intelligentia sunt instructi, in sequenti opere, quod complectitur ordinatam astronomicorum et geomatricorum problematum descriptionem, tanquam in clara luce intueri et experientia infallibili duce deprehendere poterunt. Omnia nunc simul in lucem edita in gratiam matheseos studiosorum per Danielem Santbech Noviomagum. Cum Caes<aris> maiestatis gratia et privilegio. Basileae.'

Astronomy: Daniel Santbech, letter to 'Clarissimo et generosissimo Heroi D. Egenolpho baroni inclyto, domino in Rappenstein, Hoennach, et Geroltzeck, domino plurimum observando' ($^{*}_{2}$r–$^{*}_{3}$r); Regiomontanus, *Praefatio* ($^{*}_{3}$v–[$^{*}_{4}$]r); Johannes Schöner, letter to the readers ([$^{*}_{4}$]v); Regiomontanus, *De triangulis* (1–129); Johannes Schöner, letter to Hironymus Schreiber (130); ***Ptolemaica* (131–139)**; Regiomontanus, *Compositio tabularum sinuum* (140–146), with tables ([147]–[183]).

Bibl. VD16 M 6571

Exemplar Augsburg, Staats- und Stadtbibliothek, 2 Math 85#(Beibd. 1

131–139 'Tractatus Georgii Peurbachii super propositiones Ptolemaei de sinubus et chordis. Sinuum, chordarum et arcuum noticia ad coelestium motuum cognitionem pervalde necessaria existit, ideo de eorum doctrina restat in praesenti perquirendum — Et similiter sciemus quantitates reliquarum chordarum, facilis ergo est secundum praemissorum tenorem chordarum ad suos arcus cognitio.'
= **Georg Peurbach, *Tractatus super propositiones Ptolemei de sinubus et chordis* (C.1.20)**.

Rome, Paulus Manutius Aldi, 1562

'Claudii Ptolemaei Liber de Analemmate, a Federico Commandino Urbinate instauratus et commentariis illustratus, qui nunc primum eius opera e tenebris in lucem prodit. Eiusdem Federici Commandini liber De horologiorum descriptione. Romae, M.D.LXII. Apud Paulum Manutium Aldi F.'

Federico Commandino, dedicatory letter to Cardinal Ranuccio Farnese ($^{*}_{ii}$r–[$^{*}_{iv}$]r); ***Ptolemaica* (1r–48v)**; Federico Commandino, *De horologiorum descriptione* (49r–93v); subject index ([94]r–[95]r); *Errata* ([95]v–[96]r).

Bibl. EDIT16: CNCE 27783

Exemplar Florence, Biblioteca Nazionale Centrale, Ald. 1.6.42

1r–48v 'Claudii Ptholemei liber de Analemmate cum commentariis Federici Commandini Urbinatis. Consideranti mihi, Syre, ex angulis, qui circa gnomonis locum accipiuntur, qui rationali consentanei essent... (1v) Commentarius. Antiquos mathematicos de gnomonicis rationibus conscripsisse ex Vitruvio, Ptolemaeoque satis constat — ab ipso Analemmate exordium capientes' [followed by diagram].

= **Federico Commandino, *Claudii Ptholemei liber de Analemmate cum commentariis* (C.4.2)**, together with the original text in Federico Commandino's 'edition'.

Frankfurt/M., Georgius Corvinus, Sigismundus Feierabent & Wigandus Gallus, 1563

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iac<obi> Micylli recognitione. M.D.LXIII.' **Last page:** 'Impressum Francofurti, apud Georgium Corvinum, Sigismundum Feierabent, & haeredes Vuigandi Galli, 1563.'

Classics: Ovid's *Fasti* and other works (3–433); letter to the reader, dated Lyon, 17 August 1534 (434); ***Ptolemaica* (435–454)**.

Bibl. VD16 O 1535

Exemplar Munich, Bayerische Staatsbibliothek, a.lat.a.1098

435–454 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Gualtherus Fabricius, 1564

'P. Ovidii Nasonis Fastorum libri sex, quibus accessere Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monumentis Romae reperti. Sex priorum mensium digestio ex Ovidii Fastorum sex libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Coloniae Agrippinae, excudebatur Gualthero Fabricio, anno M.D.LXIIII.'

Classics: Ovid, *Fasti* (3–160); letter to the reader dated 17 August (161); ***Ptolemaica* (162–176)**; Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (177–90). Two items listed on the front page are not found in this edition: 'XII Romanorum menses...' and 'Sex priorum mensium...'

Bibl. VD16 ZV 22163

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, AB 49842

162–176 'Clau<dii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al.> Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Petrus Horst, 1564

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> III (!). Ex postrema Iac<obi> Micylli recognitione. Coloniae. Excudebat Petrus Horst. Anno 1564.'

Classics: Ovid's *Fasti* and other works (I/3-III/119); letter to the reader, dated Lyon, 17 August 1534 (III/120); ***Ptolemaica* (III/121–135)**.

Bibl. ---

Exemplar Berlin, Staatsbibliothek Preussischer Kulturbesitz, Wi 890

III/121–135 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1566

'Ioannis Ioviani Pontani De rebus coeslestibus libri XIIII. Tomus tertius. Eiusdem De Luna fragmentum. Item commentariorum in Centum Claudii Ptolemaei sententias libri duo. Basileae.'

Giovanni Pontano's complete works, vol. III: *De rebus coelestibus* (1963–2591); *De Luna fragmentum* (2592–2596); Petrus Summontius, letter to the reader (2596–2597); other letters (2597–2599); ***Ptolemaica* (2601–2878)**.

Bibl. VD16 P 4197

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, Af 4898 (3)

2601–2878 'Ioannis Ioviani Pontani commentationum in centum Claudii Ptolemaei sententias ad Federicum Urbini ducem liber I. Tametsi publicarum rerum administratio, bellique gerendi cura deterrere me iure possunt, Federice dux fortissime... (2603) I. Ptolemaeus. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet... Pontanus. Nec medici, nec moralis philosophi sola est cognitio, sed quaedam etiam operatio — tum stellarum radii vel trahentes eas, vel impellentes pro qualitate aspectus et virium efficatia. Commentariorum Ioan<nis> Pontani in centum Ptolemaei sententias finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**.

Lyon, Antonius Gryphius, 1567

'P. Ovidii Nasonis Fastorum lib<ri> VI, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in gratiam studiosorum praefiximus. Tristium lib<ri> V. De ponto lib<ri> IIII. Cum permultis exem-

plaribus, cum impressis tum vero manuscriptis, tanta diligentia ac sedulitate collati, ut multo quam antehae castigatiores in lucem procedant. Lugduni, apud Antonium Gryphium, 1567.'

Classics: ***Ptolemaica* (2–20 (?))**; Ovid's *Fasti* and other works (21–(?)).

Note I have seen only samples of this edition online (title page and two other pages), but it is likely to be identical to eds Lyon, Sebastianus Gryphius, 1547 and Lyon, Sebastianus Gryphius, 1554 (see), which have basically the same title page.

Bibl. ---

Exemplar ---

2–20 (?) '(...)'.
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1568

'P. Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Item Claudii Ptolemaei Inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. XII Romanorum menses in veteribus monimentis Romae reperti. Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta. Adiecimus quoque in Fastorum libros scholia Philippi Melanchthonis. Basileae.' **Last page:** 'Basileae, ex officina Henricpetrina, mense Martio, an<no> M.D.LXVIII.'

Classics: Joannes Thomas Freigius, dedicatory letter to Gisbertus, abbot of Gengenbach ($^{*}_{2}$r–$^{*}_{4}$r); 'P. Ovidii Nasonis vita ex Petro Crinito' ($^{*}_{4}$v–[$^{*}_{8}$]r); Ovid, *Fasti* (1–323); Joannes Thomas Freigius, *Annotationes* (324–344); *Romanorum menses in veteribus monimentis Romae reperti* (345–357); *Sex priorum mensium digestio ex sex Ovidii Fastorum libris excerpta* (357–366); Philipp Melanchthon, *In libro I fastorum Ovidi scholia* (367–386); ***Ptolemaica* (387–406)**; Ovid, *Tristia* and *De ponto* (302–562 — pagination sic in the Munich exemplar).

Bibl. VD16 O 1539

Exemplar Munich, Bayerische Staatsbibliothek, a.lat.a.1002–2

387–406 'Claudii Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. Kal. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Wittenberg, Johannes Lufft, 1569

'Regulae artis mathematicae graece et latine Claudio Ptolomeo authore. Opus quidem utile et studiosis omnibus in hanc artem versantibus multo necessarium. Huic addidit Erasmi Rheinholt Salvendensi explicationes aliquot pulcherrimae anno 1569.'

Erasmus Reinhold, dedicatory letter to Christoph von Karlowitz (A_1v–[A_8]v); Ptolemy, *Almagest*, Book I, Greek (1r–43r); ***Ptolemaica* (44r–123r)**; Philipp Melanchthon, Latin verses (123v); *Errata* ([124]v).

Bibl. VD16 P 5202

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3073

44r–123r 'Primus liber Magnae constructionis Ptolemaei. (45r) Optime mihi videntur hi, qui dextre philosophati sunt, separasse speculativam philosophiae partem ab activa... (47r) Caput I. De ordine huius doctrinae. Initium autem erit huius operis, haec consideratio, quomodo se tota terra universaliter habeat ad totum coelum — in qua aequinoctialis nusquam ad horizontem inclinat. Ad lectorem studiosum. Deo iuvante in proxima aeditione hanc institutam explicationem nostram rudiorem perpoliemus, et adiungemus reliqua ex Theone, quae ad Ptolemaei sententiam penitus intelligendam aliquid momenti adferunt, interea bene vale et hisce feliciter fruere. Laus Deo.'
= **Ptolemy, *Almagesti*, tr. Erasmus Reinhold (A.1.5)**, Book I.

Frankfurt/M., Wigandus Gallus, 1575

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iacobi Micylli recognitione. Francofurti ad Moenum. M.D.LXXV.' **Last page:** 'Impressum Francofurti ad Moenum, impensis haeredum Vuigandi Galli. M.D.LXXV.'

Classics: Ovid's *Fasti* and other works (3–409); letter to the reader, dated Lyon, 17 August 1534 (410); ***Ptolemaica* (411–429)**.

Bibl. VD16 O 1541

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, AB 37 1/i

411–429 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lisbon, Antonius Riberius, 1575

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII.' Ad fastorum explicationem, adiectae sunt inerrantium stellarum singularum significationes, ex Cl<audio> Ptolemaeo. Cum facultate reverendissimorum patrum supremo S. Inquisitionis consilio praefectorum. Olysippone, excudebat Antonius Riberius, expensis Ioannis Hispani Bibliopolae. 1575.'

Classics: Johannes Hispanus, letter to the reader ([A_i]v); Ovid's *Fasti* and other works (A_{ii}r–Z_{iiii}r); letter to the reader, dated 17 August 1534, in Lyon (Z_{iiii}v); ***Ptolemaica*** **([Z_v]r–[aa_{iiii}]v)**.

Bibl. ---

Exemplar Lisbon, Biblioteca Nacional de Portugal, res-2491-p

[Z_v]r–[aa_{iiii}]v 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Cologne, Johannes Gymnicus, 1576

'P. Ovidii Nasonis Fastorum lib<ri> VI a Victorino Giselino emendati. Coloniae Agrippinae, apud Ioannem Gymnicum sub Monocerote, M.D.LXXVI.'

Classics: Ovid's *Fasti* and other works (1–167); letter to the reader, dated 17 August <1534, in Lyon> (169); ***Ptolemaica*** **(180–199)**. There are no pages 170–179.

Bibl. VD16 O 1617

Exemplar Munich, Bayerische Staatsbibliothek, a.lat.a. 1099

180–199 'Cla<udii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. 4. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) 11. Aquila exoritur vesperi. 10. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Basel, Henricus Petri, 1578

'Hieronymi Cardani in Cl<audii> Ptolemaei de astrorum iudiciis, aut (ut vulgo appellant) Quadripartitae constructionis, lib<rorum> IIII commentaria, ab autore postremum castigata et locupletata. His accesserunt eiusdem Cardani de septem erraticarum stellarum quantitatibus atque viribus liber posthumus ante non visus. Geniturarum item XII ad hanc scientiam recte exercendam observatu utilium exempla. Item, Cunradi Dasypodii, mathematici Argent<oratensis>, scholia et resolutiones seu tabulae in libr<os> IIII Apotelesmaticos Cl<audii> Ptolemaei, una cum aphorismis eorundem librorum. Denique brevis explicatio astronomici horologii Argentoratensis ad veri et exacti temporis investigationem extructi. Basileae ex officina Henricpetrina.' **Last page:** 'Basileae ex officina Henricpetrina, anno nostrae salutis recuperatae MDLXXIIX, mense Septembri.'

Astrology: Girolamo Cardano, dedicatory letter to John Hamilton (a_2r–a_3v); ***Ptolemaica* (a_4r–[a_6]v)**; chapter index of Cardano's works in this volume ([a_7]r–[a_8]r); Girolamo Cardano, *De septem erraticis stellis liber* (1–94); ***Ptolemaica* (97–510)**; Girolamo Cardano, *Geniturarum exempla* (601–701); Girolamo Cardano, *De interrogationibus libellus* (701–715); ***Ptolemaica* (719–758, 763–832 and 833–838)**.

Bibl. VD16 P 5256

Exemplar Dresden, Sächsische Landesbibliothek – Staats- und Universitätsbibliothek, Astron. 108

a_4r–[a_6]v and 97–510

'Hieronymi Cardani Mediolanensis medici in Ptolemaei librorum de iudiciis astrorum commentaria prooemium. Semper mos ille viguit, ut qui imperitissimus esset, bonis omnibus artibus malediceret... (a_5v) Hieronymi Cardani Mediolanensis medici in commentaria astronomica ad pium lectorem praefatio. His nugonibus qui artem ipsam vanitatis aut impietatis perperam accusant... ([a_6]v) Praefatio ad lectorem eiusdem utilissima admonitio. Quanquam nemo soleat ei arti quam profiteri vult... (97) Claudii Ptolemaei Pelusiensis libri quatuor de astrorum iudiciis cum expositione Hieronymi Cardani Mediolanensis medici. Prooemium expositoris. Libros hos antiquorum more de iudiciis inscripsit Ptolemaeus Pelusiensis Aegyptius, unde Alexandrinus etiam dictus est... (99) Prooemium authoris. Caput I. Textus I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima... Commentarius. Authores prooemia faciunt, ut quod non ex arte est ad artem tamen est necessarium explicetur — et nova directio per meridianos iuxta proportionis aut circulos positionis reditus an processus significatorum electio. Et loci mutati aut mutati ingressibus comparati. Hieronymi Cardani medici Mediolanensis expositionum in Cl<audii> Ptolemei libr<os> IIII De iudiciis finis.'

= **Girolamo Cardano, *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24)**. General preface, a_4r–a_5r; preface to the reader, a_5v–[a_6]r; second preface to the reader, [a_6]v; commentator's preface, 97–98; Book I, 99–208; II, 209–317; III, 318–421; IV, 421–510.

719–758

'Nobilitate, doctrina atque prudentia excellentissimo, ornatissimoque equiti Holsato, Henrico Ranzovio... (723) Scholia in quatuor libros Ptolemaei Apotelesmaticos Cunradi Dasypodii mathematici ordinarii academiae Argentoratensis. Prooemium. In his meis scholiis, haec potissimum persequar primo vocabula Ptolemaei Graeca difficiliora... (725) Liber primus. Caput primum. De astronomiae et astrologiae differentia. Τὸ δι' ἀστρονομίας προγνωστιχὸν τέλος: Ostendit his verbis finem astrologiae esse — et in integrum restitutis praedictionibus astrologicis. Finis.'

= **Conrad Dasypodius, *Scholia in quatuor libros Ptolemaei Apotelesmaticos* (C.2.31)**. Preface, 719–722; Introduction, 723–725; Book I, 725–739; II, 740–745; III, 745–754; IV, 755–758.

763–832 ‘Cunradi Dasypodii in IIII libros Cl<audii> Ptolemaei de astrorum iudiciis sive Apotelesmaticos resolutiones. (765) Nobilitate, doctrina atque prudentia excellentiss<imo> atque ornatissimoque equiti Holsato, Henrico Ranzovio… (769) Cl<audii> Ptolemaei Phelusiensis IIII lib<rorum> de astrorum iudiciis, aut ut vulgo vocant Quadripartitae constructionis, brevis et succincta resolutio autore Cunrado Dasypodio Argentoratensis academiae mathematico ordinario. Hoc volumen dividitur in (1) prooemium, quo tria docet — per ingressus planetarum in praecipua loca. Finis librorum Apotelesmaticorum IIII.’
= **Conrad Dasypodius, *In IIII libros Ptolemaei De astrorum iudiciis sive Apotelesmaticos resolutiones* (C.2.32)**. Title, 763; Preface, 765–768; Book I, 769–801; II, 801–822; III, 823–829; IV, 829–832.

833–838 ‘Aphorismi astrologici ad lectionem ApotelesmatΩn Ptolemaei utiles. Progressio physica. Ex calido, frigido, humido, sicco, primis inquam qualitatibus procedunt, secundae qualitates — atque iuxta illam comparationem iudicare. Finis aphorismorum.’
= **Conrad Dasypodius, *Aphorismi astrologici ad lectionem Apotelesmaton Ptolemaei utiles* (C.2.33)**.

Frankfurt/M., Georgius Corvinus, 1579

‘Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iacobi Micylli recognitione. Francofurti ad Moenum. M.D.LXXIX.’ **Last page:** ‘Impressum Francofurti ad Moenum, apud Georgium Corvinum, impensis Iohannis Feyerabendii. M.D.LXXIX.’

Classics: Ovid’s *Fasti* and other works (3–409); letter to the reader, dated Lyon, 17 August 1534 (410); ***Ptolemaica* (411–429)**.

Bibl. VD16 ZV 22197

Exemplar Vienna, Österreichische Nationalbibliothek, *35.J.94

411–429 ‘Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Philippus Tinghus, 1581

‘Speculum astrologiae, universam mathematicam scientiam in certas classes digestam complectens. Autore Francisco Iunctino Florentino S. T. D. ac eleemosynario ordinario serenissimi principis Francisci Valesii, Christianiß. Francorum ac Poloniae regis fratris unici

Andegavensis ducis etc. Accesserunt etiam commentaria absolutissima in duos posteriores Quadripartiti Ptolemaei libros, innumeris observationibus referta, et certissimis aphorismis (quatenus ex siderum positione liceat Christiano more aliquid coniicere) ex probatissimorum astrologorum scriptis depromptis insignita. Quid in priori et posteriori tomo contineatur, elenchus post epistolam af lectorem subiunctus indicabit. Omnia sub censura Sanctae Ecclesiae Catholicae Romanae. Tomus prior. Lugduni, in officina Q. Phil<ippi> Tinghi Florentini, apud Simphorianum Beraud, M.D.LXXXI. Cum privileg<io> Caes<aris> maiest<atis> et reg<is> Christian.' **Last page:** 'Excudebat Ioannes Quadratus, anno 1581, 4 idus Aprilis' (the date 1581 also appears on the preceding p. [1313]: 'Constructum est collectitia 1581 Lugduni').

Francesco Giuntini's *Speculum astrologiae*, vol. I: letter 'Ad reverendissimos antistites ac reverendos inquisitores haereticae pravitatis' ($\dagger_2$r); letter to the reader ([$\dagger_3$]r); chapter index ([$\dagger_3$]v); name index ([$\dagger_4$]r–[$\dagger_4$]v; Giuntini, *Defensio bonorum astrologorum de astrologia iudiciaria adversus calumniatores* (1–15); Giuntini, *Isagoge in iudicia quae ex astrorum observatione fieri possunt* (17–47); ***Ptolemaica* (50–108 and 109–830)**; Pseudo-Ptolemy, *Karpos*, Greek (831–836); ***Ptolemaica* (837–840)**; Hermes, *Centiloquium* (840–43); *Capitula Almansoris* (853–847); Ludovicus de Rigiis, *Aphorismi astrologici* (847–56); Giuntini, *De iudiciis nativitatum* (857–1008); Giuntini, *Tractatus iudicandi revolutiones nativitatum* (1009–1152); Giuntini, *Tractatus iudicandi revolutiones annorum mundi* (1153–1313). Vol. II includes Giuntini's commentary on Peurbach's *Theoricae novae planetarum* and on Sacrobosco's *De sphera*, and other works dealing with astronomy and the calendar.

Bibl. ---

Exemplar Jena, Thüringer Universitäts- und Landesbibliothek, 2 Math.VII, 14a

50–108 'Claudii Ptolemaei Pelusiotae Quadripartiti operis de iudiciis astrorum ad Syrum fratrem liber primus, cuius duos posteriores libros diffusissimis commentariis explicat Franciscus Iunctinus theologus et mathematicus peritissimus priores quoque duos propediem (Deo dante) commentariis illustraturus. Cap. I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — (103) genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi' (followed by tables).
= **Ptolemy, *Quadripartitum*, tr. Joachim Camerarius (A.2.9)**, together with the Greek text in two columns. Book I, 50–78; II, 79–103; tables, Greek and Latin, 104–108.

109–830 'Francisci Iunctini Florentini theologi et mathematici peritissimi in duos posteriores Ptolemaei Quadripartiti libros absolutiss<ima> comment<aria>. Prolegomena. Apud veteres scholiastes in more est positum, ut, antequam ad auctoris enarrationem descendant... (110) Textus. ΑΡΧΗ ΤΟΥ ΤΡΙΤΟΥ ΠΤΟΛΕΜΑΪΟΥ. Περὶ σπορᾶς καὶ ἐχτροπῆς. Εφωδευμένης ἡμῖν ἐν τοῖς... Prooemium. Postquam accidentia generalia in his, quae ex nostra observatione praemissa sunt... Commentarius. Antequam ad Ptolemaei verba accedamus, primum quae sit auctoris intentio — quantum homini

licuit pertinent. Reliquum est, ut Deo gratias omnium bonorum authori agamus.'
= **Francesco Giuntini, *In duos posteriores Ptolemaei Quadripartiti libros absolutissima commentaria* (C.2.34)**. Book III, 109–612; IV, 613–830.

837–840 'Cl<audii> Ptolemaei Centum dicta sive fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Basel, Ex officina Brylingeriana, 1582

'P. Ovidii Nasonis Fastorum libri VI, Tristium libri V, De ponto lib<ri> IIII, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in graciam studiosorum praefiximus. Basileae, ex officina Brylingeriana, anno M.D.LXXXII.' **Last page:** 'Basileae ex officina Brylingeriana, anno M.D.LXXXII.'

Classics: ***Ptolemaica* (a_2r–b_2v)**; Ovid's *Fasti* and other works (1–397).

Bibl. ---

Exemplar Zurich, Zentralbibliothek, RRh 104

a_2r–b_2v 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Frankfurt/M., Christophorus Corvinus, 1582

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iacobi Micylli recognitione. Francofurti ad Moenum. M.D.LXXXII.' **Last page:** 'Francofurti ad Moenum, apud Christophorum Corvinum, impensis Iohannis Feyerabendii. M.D.LXXXII.'

Classics: Ovid's *Fasti* and other works (3–409); letter to the reader, dated Lyon, 17 August 1534 (410); ***Ptolemaica* (411–429)**.

Bibl. VD16 ZV 21057

Exemplar Berlin, Staatsbibliothek Preussischer Kulturbesitz, Wi 5921

411–429 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi

fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Leipzig, Joannes Steinman, 1582

'P. Ovidii Nasonis Fastorum libr<i> VI, Tristium libr<i> V, De ponto libr<i> IIII, Dirae in Ibin, Halieuticon fragmentum. Ex postrema Iacobi Micylli recognitione et recensione nova Gregorii Bersmani cum eiusdem notationibus. 1582. Lipsiae. Cum privilegio.' **Last page:** 'Lipsiae, imprimebat Ioannes Steinman, anno M.D.XXCII.'

Classics: Gregorius Bersmanus, dedicatory letter (‖2r–‖5v) and other introductory material (‖[6]r–‖[8]r); Ovid, *Fasti* (1–174), with notes (175–213); letter to the reader (214); 'Calendarius vetus Romanum...' (215–222); 'De veterum dierum ratione' (223–240); 'De ratione interkalandi...' (241–251); 'Calendarium ex L. G. Giraldo et aliis compilatum...' (252–266); ***Ptolemaica* (267–286)**; Ovid, *Tristia* and *De ponto* (289–649); 'Catalogus aquatilium ex Plinii Naturalis historiae libri XXXII capite ultimo' (650–652).

Bibl. VD16 O 1544

Exemplar Munich, Bayerische Staatsbibliothek, a.lat.a.1004 a

267–286 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Lyon, Philippus Tinghus, 1583

'Speculum astrologiae, universam mathematicam scientiam in certas classes digestam complectens. Autore Francisco Iunctino Florentino S. T. D. ac eleemosynario ordinario serenissimi principis Francisci Valesii, Christianiß. Francorum ac Poloniae regis fratris unici Andegavensis ducis etc. Accesserunt etiam commentaria absolutissima in duos posteriores Quadripartiti Ptolemaei libros, innumeris observationibus referta, et certissimis aphorismis (quatenus ex siderum positione liceat Christiano more aliquid coniicere) ex probatissimorum astrologorum scriptis depromptis insignita. Quid in priori et posteriori tomo contineatur, elenchus post epistolam af lectorem subiunctus indicabit. Omnia sub censura Sanctae Ecclesiae Catholicae Romanae. Tomus prior. Lugduni, in officina Q. Phil<ippi> Tinghi Florentini, apud Simphorianum Beraud, M.D.LXXXIII. Cum privileg<io> Caes<aris> maiest<atis> et reg<is> Christian.' **Last page:** 'Excudebat Ioannes Quadratus, anno 1581 (!), 4 idus Aprilis' (the date 1581 also appears on the preceding p. [1313]: 'Constructum est collectitia 1581 Lugduni').

Francesco Giuntini's *Speculum astrologiae*, vol. I: letter 'Ad reverendissimos antistites ac reverendos inquisitores haereticae pravitatis' ($\dagger_2$r); letter to the reader ([$\dagger_3$]r); chapter index ([$\dagger_3$]v); name index ([$\dagger_4$]r–[$\dagger_4$]v; Giuntini, *Defensio bonorum astrologorum de astrologia iudiciaria adversus calumniatores* (1–15); Giuntini, *Isagoge in iudicia quae ex astrorum observatione fieri possunt* (17–47); ***Ptolemaica* (50–108 and 109–830)**; Pseudo-Ptolemy, *Karpos*, Greek (831–836); ***Ptolemaica* (837–840)**; Hermes, *Centiloquium* (840–843); *Capitula Almansoris* (853–847); Ludovicus de Rigiis, *Aphorismi astrologici* (847–856); Giuntini, *De iudiciis nativitatum* (857–1008); Giuntini, *Tractatus iudicandi revolutiones nativitatum* (1009–1152); Giuntini, *Tractatus iudicandi revolutiones annorum mundi* (1153–1313). Another exemplar of the same edition (Regensburg, Staatliche Bibliothek, 999/2Philos.3100) has additional material at the beginning, including Giuntini's dedicatory letter to Marquard von Hattstein, bishop of Speyer ($\dagger_1$r–$\dagger_2$r). Vol. II includes Giuntini's commentary on Peurbach's *Theoricae novae planetarum* and on Sacrobosco's *De sphera*, and other works dealing with astronomy and the calendar.

Note This edition seems to be the exact replica of ed. Lyon, Philippus Tinghus, 1581, except for the date 'M.D.LXXXIII' given on the front page. The date 1581 was however left unchanged on p. 1313 and on the last page (see above).

Bibl. ---

Exemplar Madrid, Biblioteca Nacional, GMG/304

50–108 'Claudii Ptolemaei Pelusiotae Quadripartiti operis de iudiciis astrorum ad Syrum fratrem liber primus, cuius duos posteriores libros diffusissimis commentariis explicat Franciscus Iunctinus theologus et mathematicus peritissimus priores quoque duos propediem (Deo dante) commentariis illustraturus. Cap. I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — (103) genitales praecognitiones sicut et ordo postulat nunc deinceps exequemur. Finis libri secundi' (followed by tables).
= **Ptolemy, *Quadripartitum*, tr. Joachim Camerarius (A.2.9)**, together with the Greek text in two columns. Book I, 50–78; II, 79–103; tables, Greek and Latin, 104–108.

109–830 'Francisci Iunctini Florentini theologi et mathematici peritissimi in duos posteriores Ptolemaei Quadripartiti libros absolutis<ima> comment<aria>. Prolegomena. Apud veteres scholiastes in more est positum, ut, antequam ad auctoris enarrationem descendant... (110) Textus. ΑΡΧΗ ΤΟΥ ΤΡΙΤΟΥ ΠΤΟΛΕΜΑΪΟΥ. Περὶ σπορᾶς χαὶ ἐχτροπῆς. Εφωδευμένης ἡμῖν ἐν τοῖς... Prooemium. Postquam accidentia generalia in his, quae ex nostra observatione praemissa sunt... Commentarius. Antequam ad Ptolemaei verba accedamus, primum quae sit auctoris intentio — quantum homini licuit pertinent. Reliquum est, ut Deo gratias omnium bonorum authori agamus.'
= **Francesco Giuntini, *In duos posteriores Ptolemaei Quadripartiti libros absolutissima commentaria* (C.2.34)**. Book III, 109–612; IV, 613–830.

837–840 ‘Cl<audii> Ptolemaei Centum dicta sive fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.’
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Frankfurt/M., Johannes Feyrabend, 1587

‘Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iac<obi> Micylli recognitione. Francofurti ad Moenum, M.D.LXXXVII.’ **Last page:** ‘Francofurti ad Moenum, apud Iohannem Feyrabend, impensis Sigismundi Feyrabendii, Henrici Thackii et Petri Fischeri sociorum. M.D.LXXXVII.’

Classics: Ovid’s *Fasti* and other works (3–409); letter to the reader, dated Lyon, 17 August 1534 (410); ***Ptolemaica* (411–429)**.

Bibl. VD16 O 1548

Exemplar Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, AB 37/k, 11 (1)

411–429 ‘Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.’
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Urbino, Bartholomeus Ragusius & Simon Ragusius, 1592

Part I:‘Federici Bonaventurae Urbinatis Anemologiae pars prior, id est De affectionibus, signis, causisque ventorum ex Aristotele, Theophrasto, ac Ptolomaeo tractatus. Qua in hac priori parte continentur sequens pagina indicabit. Adiectus est index locorum et quaestionum quae explicantur. Ad serenissimum Franciscum Mariam secundum Urbini ducem sextum. Urbini apud Bartholomaeum et Simonem Ragusios fratres, M.D.LXXXXIII. Ex superiorum permissu.’ **Part II:** ‘Claudii Ptolemaei inerrantium stellarum apparitiones ac significationum collectio. Libellus mire elegans atque ad aeris praevidendas mutationes omnino necessarius, antehac nunquam impressus. A Federico Bonaventura Urbinate latinitate donatus, scholiisque nonnullis illustratus. Item libelli duo, alter ex Columella, alter ex Plinio, excerpti De inerrantium stellarum significationibus. Urbini MDXCII, apud Bartholomaeum Ragusium.’ **Part III:** ‘Federici Bonaventurae Urbinatis de causa ventorum motus peripatetica disceptatio, in qua nullam esse inter Aristotelem et Theophrastum in has quaestione dissensionem, adversus communem sententiam demonstratur. Ad Alexandrum Georgium Urbinatem. Urbini MDXCII, apud Bartholomaeum Ragusium.’ **Part IV:** ‘Federici Bonaventurae Urbinatis pro Theophrasto atque Alexandro Aphrodisiensi de vero tempore ortus atque occasus Orionis

apologia, tribus libris distincta, in qua de speciebus ortus et occasus syderum ex Ptolemaei sententia latissime agitur, multaque loca veterum poetarum, medicorum ac philosophorum et praesertim Homeri, Hippocrati, Hesiodi, Aristotelis, Arati, Galeni, Hipparchi, Theophrasti, Alexandri, Vergilique enarrantur. Ad clarissimum mathematicum Io<annem> Antonium Maginum Patavinum. Urbini MDXCII, apud Bartholomaeum Ragusium.'

Federico Bonaventura, *Anemologiae pars prior*: table of contents of Parts I–IV (I/[†$_{i}$]v); dedicatory letter to Francesco Maria II, duke of Urbino (I/†$_{ii}$r–[†$_{iii}$]r); letter to the reader ([I/†$_{iii}$]v–[††$_{i}$]v); Horatius Vimercatus, *In laudem auctoris* (I/††$_{2}$r); 'Index locorum et quaestionum' (I/††$_{2}$v–†††††††$_{1}$v); *Errata* (I/†††††††$_{1}$v–[†††††††$_{2}$]r); note to the reader (I/[†††††††$_{2}$]v); Theophrastus, *De ventis liber* (I/1–34); Theophrastus, *Libellus de pluviarum signis* (I/35–44); Theophrastus, *Libellus de ventorum signis* (I/45–50); Theophrastus, *Libellus de tempestatum signis* (I/51–56); Theophrastus, *Libellus de tranquillitatis ac serenitatis signis* (I/57–60); Bonaventura, *Annotationes in librum Theophrasti de ventis* (I/61–221); Bonaventura, *Annotationes in libellum de pluviarum signis* (I/223–361); Bonaventura, *Annotationes in opusculum de ventorum signis* (I/361–417); Bonaventura, *Annotationes in libellum de signis tempestatum* (I/417–433); Bonaventura, *Annotationes in opusculum de tranquillitatis et serenitatis signis* (I/434–442); preface (II/3–4); ***Ptolemaica* (II/5–46)**; Columella, *De inerrantium syderum significationibus* (II/47–56); 'Pliniana anni divisio in partes octo atque inerrantium syderum per eas significationes' (II/57–64); ***Ptolemaica* (II/65–120)**; preface to Alexander Georgius of Urbino (III/3–5); Bonaventura, *De causa ventorum motus* (III/6–195); Bonaventura, *Apologia* (IV/3–116); 'Tabula continens innerrantium syderum loci... quorum in Apologia mentio est' (IV/117–142).

Note Part I was printed in 1593 and Parts II–IV in 1592. It is not clear whether Part II, containing the Ptolemaic sections, circulated separately in 1592 or was just meant to be appended to Part I, whose front page and table of contents include the matters covered in Parts II–IV.

Bibl. EDIT16: CNCE 6932

Exemplar Unknown (Google Books, source not given).

II/5–46 'Claudii Ptolemaei inerrantium stellarum apparitiones et significationum collectio, Federico Bonaventura interprete. Inerrantium stellarum apparitiones quot nam habeant differentias quasve causas — in quo dici magnitudo ad horas 15 extenditur. Finis.'
= **Ptolemy, *Inerrantium stellarum apparitiones et significationum collectio*, tr. Federico Bonaventura (A.4.1)**.

II/65–120 'Annotationes in librum Ptolemaei de inerrantium syderum significationibus. Inerrantium stellarum libellum hunc inter Ptolemaei commentarios esse recipiendum nemo est qui dubitare possit — Deinde quod magis est hoc in loco pro occidunt Haedi, legendum oriuntur Haedi, nam et sic Columella et liber a Leonico translatus. Finis.'
= **Federico Bonaventura, *Annotationes in librum Ptolemaei de inerrantium syderum significationibus* (C.4.1)**.

Porrentruy, Joannes Fabrus, 1594

'P. Ovidii Nasonis Fastorum libri VI, Tristium libri V, De ponto libri IIII, quibus Cl<audii> Ptolemaei Inerrantium stellarum significationes, quod cum fastorum argumento maxime congruere viderentur, in graciam studiosorum praefiximus. Brunntruti, apud Ioannem Fabrum, M.D.XCIIII.'

Classics: ***Ptolemaica* (3–21)**; Ovid's *Fasti* and other works (22–441).

Bibl. VD16 ZV 29852

Exemplar Munich, Bayerische Staatsbibliothek, Res/A.lat.a. 2618 a

3–21 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Venice, Franciscus de Franciscis Senensis, 1594

'Claudii Ptolemaei inerrantium stellarum apparitiones ac significationum collectio. Libellus mire elegans atque ad aeris praevidendas mutationes omnino necessarius, antehac nunquam impressus. A Federico Bonaventura Urbinate latinitate donatus, scholiisque nonnullis illustratus. Item libelli duo, alter ex Columella, alter ex Plinio, excerpti De inerrantium stellarum significationibus. Venetiis MDXCIIII, apud Francisci de Franciscis Senensis.'

Federico Bonaventura's works of astrometeorology: preface (3–4); ***Ptolemaica* (5–46)**; Columella, *De inerrantium syderum significationibus* (47–56); 'Pliniana anni divisio in partes octo atque inerrantium syderum per eas significationes' (57–64); ***Ptolemaica* (65–120)**.

Bibl. ---

Exemplar Seville, Biblioteca Universitaria, A Res. 41/6/01(3)

5–46 'Claudii Ptolemaei inerrantium stellarum apparitiones et significationum collectio, Federico Bonaventura interprete. Inerrantium stellarum apparitiones quot nam habeant differentias quasve causas — in quo dici magnitudo ad horas 15 extenditur. Finis.'
= **Ptolemy, *Inerrantium stellarum apparitiones et significationum collectio*, tr. Federico Bonaventura (A.4.1)**.

65–120 'Annotationes in librum Ptolemaei de inerrantium syderum significationibus. Inerrantium stellarum libellum hunc inter Ptolemaei commentarios esse recipiendum nemo est qui dubitare possit — Deinde quod magis est hoc in loco pro occidunt Haedi, legendum oriuntur Haedi, nam et sic Columella et liber a Leonico translatus. Finis.'
= **Federico Bonaventura, *Annotationes in librum Ptolemaei de inerrantium syderum significationibus* (C.4.1)**.

Frankfurt/M., Joannes Saurius, 1599

'Pub<lii> Ovidii Nasonis Fastorum lib<ri> VI, Tristium lib<ri> V, De ponto lib<ri> IIII. Ex postrema Iac<obi> Micylli recognitione. Francofurti, Typis Ioannis Saurii, impensis heredum Petri Fischeri, M.D. XCIX.'

Classics: Ovid's *Fasti* and other works (1–382); letter to the reader, dated Lyon, 17 August 1534 (383); ***Ptolemaica* (384–402)**.

Bibl. VD16 O 1554

Exemplar Munich, Bayerische Staatsbibliothek, A.lat.a. 1007#Beibd.1

384–402 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IIII. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit. Finis.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Naples, Felix Stelliola, 1605

'Claudii Ptolemaei Magnae constructionis liber primus, cum Theonis Alexandrini commentariis, Io<anne> Baptista Porta Neap<oli> interprete. Neapoli, typis Foelicis Stelliolae, ad Portam Regalem, MDCV. Superiorum permissu.' **Last page**: 'Neapoli, ex officina Felicis Stelliolae, Ad Portam Regalem, MDCV. Superiorum permissu.'

Ptolemaica (single text).

Bibl. ---

Exemplar Berlin, Max Planck Institute for the History of Science Library, Rara P9755m

1–181 'Claudii Ptolemaei Magnae constructionis liber primus. Prooemium. Qui legitime philosophati sunt, bene quidem, o Syre, contemplativam philosophiam ab activa mihi videntur... (3) Theonis Alexandrini commentarius in primum mathematic<ae> constructionis Ptolemaei librum. Prooemium. Saepenumero ab auditoribus honatus, fili Epiphani, ea commentari, quae unicuique difficilia iudicarunt — ubique tum in horizontem super sphaera recta. Finis.'
= **Theon of Alexandria, ⟨*Commentum in Almagesti*⟩, tr. Giambattista della Porta (C.1.30.7)**, Book I.

Venice, Damianus Zenarius, 1607

'Io<hannis> Antonii Magini Patavini, mathematicarum in almo Bononiensi gymnasio professoris, De astrologia ratione ac usu dierum criticorum seu decretoriorum ac praeterea

de cognoscendis et medendis morbis ex corporum coelestium cognitione, opus duobus libris distinctum, quorum primus complectitur commentarium in Claudii Galeni librum tertium de diebus decretoriis, alter agit de legitimo astrologiae in medicina usu, his additur De annui temporis mensura in directionibus et de directionibus ipsis ex Valentini Naibodae scriptis, ad serenissimum Mantuae et Montisferrati principem D. Franciscum Gonzagium. Venetiis, apud haeredem Damiani Zenarii, MDVII. Superium permissu & privilegiis.' **Last page:** 'Venetiis, MDCII. Apud Bartholomeum Rodellam, haeredem Damiani Zenarii. Ad Salamandrae signum.'

Giovanni Antonio Magini, *De astrologia ratione*: dedicatory letter to Francesco Gonzaga, prince of Mantua and Montferrat, dated 24 January 1607 (a_2r–[a_4]r); preface to the reader ([a_4]v–[b_4]v); *Auctores qui ex professo de astrologia medico necessaria conscripserunt atque de diebus decretoriis astrologice tractarunt* (c_1r–c_1v); chapter index of the commentary on Galen (c_2r–c_2v); *Commentarius in Claudii Galieni De diebus decretoriis librum tertium* (1r–38v); *Legitimo astrologiae in medicina usu* (39r–102v); ***Ptolemaica* (103r–120v)**.

Bibl. ---

Exemplar Unknown (Google Books, source not given).

103r–120v 'De annui temporis mensura in directionibus ex commentariis Valentini Naibodae, mathematici eruditissimi super caput decimum Apotelesmatici tertii Claudii Ptolemaei. His adiicio quaestionem, circa quam multos doctos haesitasse cognovi — Haec vero a priore reiecta relinquit arcum huiusce directionis gr<adus> 27.9′.8″ sicut prius. Finis.'
= **Giovanni Antonio Magini, *De annui temporis mensura in directionibus et de directionibus ipsis ex Valentini Naibodae scriptis* (C.2.38)**. III.10, 103r–106v; III.11, 107r–120v.

Frankfurt/M., Wolfgangus Richterus, 1608

'Io<hannis> Antonii Magini Patavini, mathematicarum in almo Bononiensi gymnasio professoris, De astrologia ratione ac usu dierum criticorum seu decretoriorum ac praeterea de cognoscendis et medendis morbis ex corporum coelestium cognitione, opus ad ephemeridum supplementum nunc primo editum et libris duobus distinctum, quorum primus complectitur commentarium in Claudii Galeni librum tertium de diebus decretoriis, alter agit de legitimo astrologiae in medicina usu, his additur De annui temporum mensura in directionibus et de directionibus ipsis ex Valentini Naibodae scriptis. Francofurti, Typis Wolfgangi Richteri, sumptibus Ioannis Theobaldi Schönwetteri, MDCVIII.'

Giovanni Antonio Magini, *De astrologia ratione*: dedicatory letter to Francesco Gonzaga, prince of Mantua and Montferrat, dated 24 January 1607 (☽:☾2r–☽:☾[4]r); preface to the reader (☽:☾[4]v–☽:☾☽:☾[4]r); chapter index of the commentary on Galen (☽:☾☽:☾[4]v); *Commentarius in Claudii Galieni De diebus decretoriis librum tertium* (1–62); *Legitimo astrologiae in medicina usu* (63–157); ***Ptolemaica* (158–187)**.

Bibl. VD17 23:290095N

Exemplar Munich, Bayerische Staatsbibliothek, 4 Astr.p. 271

158–187 'De annui temporis mensura in directionibus ex commentariis Valentini Naibodae, mathematici eruditissimi super caput decimum Apotelesmaticu tertii Claudii Ptolemaei. His adiicio quaestionem, circa quam multos doctos haesitasse cognovi — Haec vero a priore reiecta relinquit arcum huiusce directionis gr<adus> 27.9′.8″ sicut prius. Finis.'
= **Giovanni Antonio Magini, *De annui temporis mensura in directionibus et de directionibus ipsis ex Valentini Naibodae scriptis* (C.2.38)**. III.10, 158–164; III.11, 165–187.

Prague, Casparus Kargesius, 1610

'Claudii Ptolemaei de praedictionibus astronomicis, cui titulum fecerunt Quadripartitum, libri IIII, nunc primum ex vetustissimo codice et interprete in lucem editi. Eiusdem Fructus librorum suorum sive Centum dicta. Pragae, typis Caspari Kargesii, anno M.DC.X, sumptibus Iacobi Brechtani.'

Ptolemy's astrological works: Jacobus Brechtanus [Jacobus van Brecht], dedicatory letter to Lamoralis de Taxis (*$_2$r–*$_5$v); ***Ptolemaica* (1–261 and 262–280)**; chapter index ([281]–[287]).

Bibl. Müller 1998, 297–98, no. 124.

Exemplar Unknown (Google Books, source not given).

1–261 'Claudii Ptholomaei mathematici operis de iudiciis astrologicis libri quatuor. Liber primus. Praefatio. 2 sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita, particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis. Finis.'
= **Ptolemy, *Quadripartitum*, tr. Philipp Melanchthon (A.2.11)**. Book I, 1–63; II, 63–119; III, 119–208; IV, 209–261.

262–280 'Cl<audii> Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Frankfurt/M., Joannes Bringerus, 1611

'Claudii Ptolomaei de praedictionibus astronomicis, cui titulum fecerunt Quadripartitum, libri IV. Eiusdem Fructus librorum suorum sive Centum dicta. Editio posterior. Francofurti, typis Ioannis Bringeri, sumptibus Iacobi Fischeri, M.DC.XI.'

Ptolemy's astrological works: Jacobus Fischerus, dedicatory letter to Gothardus Arthus (‖$_2$r–‖$_3$v); chapter index (‖$_4$r–[‖$_5$]v); ***Ptolemaica*** **(1–287 and 288–308)**.

Bibl. VD17 12:634799N

Exemplar Unknown (Google Books, source not given).

1–287 'Claudii Ptholomaei mathematici operis de iudiciis astrologicis libri quatuor. Liber primus. Praefatio. Duo sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita, particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis.'
= **Ptolemy, *Quadripartitum*, tr. Philipp Melanchthon (A.2.11)**. Book I, 1–69; II, 70–131; III, 131–229; IV, 230–287.

288–308 'Claudii Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

London, Guilielmus Jones, 1620

'ΠΡΟΚΛΟΥ ΣΦΑΙΡΑ. ΠΤΟΛΕΜΑΙΟΥ ΠΕΡΙ ΥΠΟΘΕΣΕΩΝ ΠΛΑΝΩΜΕΝΩΝ. Procli Sphaera. Ptolemaei De hypothesibus planetarum liber, singularis nunc primum in lucem editus, cui accessit eiusdem Ptolemaei Canon regnorum. Utrumque librum ex codicum M.S. collatione summa diligentia restituit latine reddidit et figuris illustravit Ioh<annes> Bainbridge med<icinae> doctor et astronomiae in celeberrima Oxoniensi Academia professor. Londini, Excudebat Guilielmus Iones, 1620.'

John Bainbridge's astronomical translations: dedicatory letter to William Herbert, 3rd Earl of Pembroke (¶$_2$r–¶$_2$v); letter to the reader (¶$_3$r–[¶$_4$]r); Pseudo-Proclus, *De sphaera*, Greek and Latin (I/1–35); ***Ptolemaica*** **(II/1–46)**; 'Canon regnorum', Greek and Latin (II/47–51); note on the Greek text of *Planetary Hypotheses* ([52]).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, 4 A.gr.b. 1196

II/1–46 'Claudii Ptolemaei de planetarum hypothesibus liber. I. Prooemium. Hypotheses, Syre, coelestium motuum in Syntaxis mathematicae commentariis rationum ductu perlustravimus — Stella vero a boreali obliqui circelli limite in mundi consequentia part. 229 et sexages. 15. ΤΕΛΟΣ.'

= **Ptolemy, *De planetarum hypothesibus liber*, tr. John Bainbridge (A.3.3)**, together with the Greek text in two columns.

Frankfurt/M., Joannes Bringerus, 1622

'Claudii Ptolomaei de praedictionibus astronomicis, cui titulum fecerunt Quadripartitum, libri IV. Eiusdem Fructus librorum suorum sive Centum dicta. Editio posterior. Francofurti, typis Ioannis Bringeri, sumptibus Iacobi Fischeri, M.DC.XXII.'

Ptolemy's astrological works: Jacobus Fischerus, dedicatory letter to Gothardus Arthus (a_2r–a_3v); chapter index (a_4r–[a_5]v); ***Ptolemaica* (1–287 and 288–308)**.

Bibl. VD17 12:634800R

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3082

1–287 'Claudii Ptholomaei mathematici operis de iudiciis astrologicis libri quatuor. Liber primus. Praefatio. 2 sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita, particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis.'
= **Ptolemy, *Quadripartitum*, tr. Philipp Melanchthon (A.2.11)**. Book I, 1–69; II, 70–131; III, 131–229; IV, 230–287.

288–308 'Claudii Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Paris, Sebastianus Cramoisy, 1630

'Uranologion sive systema variorum authorum qui de sphaera ac sideribus eorumque motibus graece commentati sunt. Sunt autem horum libri: Gemini, Achillis Tatii isagoge ad Arati Phaenomena; Hipparchi libri tres ad Aratum; Ptolemaei de apparentiis; Theodori Gazae de mensibus; Maximi, Isaaci Argyri, S. Andreae Cretensis computi. Omnia vel graece ac latine nunc primum edita vel ante non edita, cura et studio Dionysii Petavii Aurelianensis e Societate Iesu. Quod esse potest luculentissimum auctarium operis de doctrina temprum. Accesserunt variarum dissertationum libri octo ad authores illos intelligendos imprimis utiles eodem authore. Lutetiae Parisiorum, sumptibus Sebastiani Cramoisy, via Iacobaea, sub Ciconiis, M.DC.XXX, cum privilegio regis Christianis.'

Denis Petau's *Uranologion*: dedicatory letter to Cardinal Richelieu (a_{ii}r–[c_i]r); letter to the reader ([c_i]v–c_{iii}r); Petrus Victorius, letter to the reader (c_{iii}v); eulogies of Hipparchus and Achilles Statius ([c_{iv}]r); table of contents ([c_{iv}]v); Geminus of Rhodes, *Elementa astronomie*, tr. Edo Hildericus, Greek and Latin (1–70); ***Ptolemaica* (71–94 and 94–101)**; *Calendarium vetus Romanum cum ortu occasuque stellarum ex Ovidii Fastis...* (102–111); *Calendarium Romanum Constantini Magni temporibus...* (112–119); Achilles Statius, *Isagoge ad Arati Phaenomena*, Greek and Latin (121–164); Achilles Statius, *Fragmenta a Victorio edita*, Greek (165–169); Hipparchus, *Ad Arati et Eudoxi Phaenomena enarrationum*, tr. Denis Petau, Greek and Latin (171–255); Eratosthenes, *Ad Arati Phaenomena*, Greek and Latin (256–267); 'Arati genus et vita' (268–276); Theodorus Gaza, *Liber de mensibus*, tr. Joannes Perrellus, Greek and Latin (277–312); Maximus the Confessor, *Computus ecclesiasticus*, Greek and Latin (313–357); Isaac Argyros, *Computus*, Greek and Latin (359–392); Andreas Hierosolymita, *Computus paschalis*, Greek and Latin (393–395); *Fragmentum Graecum de paschate*, in Greek (396–403); Denis Petau, notes to the texts edited above (403–424); subject index (425–428); Denis Petau, *Variarum dissertationum ad Uranologion sive auctarium operis de doctrina temporum libri octo* (II/[a_i]r–338); indices to Part II (Ff_{ii}r–[Ff_{vi}]r). All texts in Part I are translated by Denis Petau unless otherwise indicated.

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, 2 A.gr.c. 17

71–94 'Ptolemaei de apparentiis inerrantium et significationibus, Dyonisio Petavio interprete. Mensis Thoth sive September. Hora XIV, quae est in cauda Leonis oritur Hipparcho. Etesiae desinunt. Eudoxo pluviae, tonitrua — quarum dies longissimus inter horas aequinoctiales XIV et XV continetur.'
= **Ptolemy, *De apparentiis inerrantium et significationibus*, tr. Denis Petau (A.4.2)**, together with the Greek text in two columns. Denis Petaus's notes to the Greek text are given pp. 415–417: 'Ad Ptolemaei libellum Graecum de Apparentiis. Sic in MS. conceptus erat titulus, ut edidimus — De quo libenter doceri me cupiam.'

94–101 'Cl<audii> Ptolemaei inerrantium stellarum significationes per Nicolaum Leonicum e Graeco translatae. Ianuarius. K<al>. Sol elevari incipit, longiusculi fiunt dies, Aquila et Corona occidunt, tempestatemque efficiunt. IV. Sol magis ascendit, Cancri medium occidit, ventique ponunt — (December) XI. Aquila exoritur vesperi. X. Capella matutino emergit. Reliquum deficit.'
= **Pseudo-Ptolemy, *Inerrantium stellarum significationes* (B.13)**.

Leiden, Ex officina Elzeviriana, 1635

'ΠΡΟΚΛΟΥ ΤΟΥ ΔΙΑΔΟΧΟΥ ΠΑΡΑΦΡΑΣΙΣ ΕΙΣ ΤΗΝ ΠΤΟΛΕΜΑΙΟΥ Τετράβιβλον. Procli Diadochi Paraphrasis in Ptolemaei libros IV De siderum effectionibus a Leone Allatio e Graeco in Latinum conversa. Lugd<uni> Batavorum, ex officina Elzeviriana, MDCXXXV.'

Ptolemaica (single text), preceded by a preface to the reader ($*_2$r–$*_2$v) and a chapter index ($*_3$r–[$*_4$]v).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3027

1–294 'Procli Diadochi Paraphrasis in Ptolemaei libros IV De siderum effectionibus. Liber primus. Cap. I. Prooemium. Cum duo sint, Syre, quae ad futurorum praesagitionem, eam scilicet quam syderum scientia consequi possumus, animum praeparant — accommodari poterit, si apte cum mathematici causa, ipsius etiam temperamenti causa coniungatur. Finis.'
= **Proclus (?),** ***Paraphrasis in quatuor Ptolemaei libros De siderum effectionibus*** **(C.2.40)**, together with the Greek text in two columns. Book I, 1–77; II, 78–148; III, 148–241; IV, 241–294.

Ulm, Ludovicus Lanovus, 1641

'Astrologia aphoristica Ptolomaei, Hermetis, Ludovici de Rigiis, Almansoris, Hieronymi Cardani, et autoris innominati. Ulmae, MDCXLI, apud Ludovicum Lanovum.'

Astrology: letter to the reader ([¶$_1$]v–¶$_2$r); subject index (¶$_2$v–[¶$_{12}$]v); ***Ptolemaica*** **(1–16)**; Hermes, *Centiloquium* (17–32); Ludovicus de Rigiis, *Aphorismi astrologici* (33–63); *Capitula Almansoris* (64–89); Girolamo Cardano, *Aphorismorum astronomicorum segmenta septem* (91–290); 'Aphorismi varii incerti auctoris. 1. Qui naturaliter astrologiae bene affectus fuerit…' (291–325).

Bibl. VD17 23:000530L

Exemplar Unknown (Google Books, source not given).

1–16 'Cl<audii> Ptolomaei Centum dicta sive Fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — [v. 99] et exercituum incursiones indicant. 100. Coniunctio Saturni, Iovis et martis in signis humidis pluvias facit et nives.'
= **Giovanni Pontano,** ***Liber commentationum in Centum sententiis Ptolemaei*** **(C.3.16)**, without the commentary. V. 100 is omitted or rather replaced by a sentence taken from another text.

Perugia, Petrus Thomasius, 1646

'Claudii Ptolemaei de praedictionibus astronomicis, cui titulum fecerunt Quadripartitum, libri quatuor. Eiusdem Fructus librorum suorum sive Centum dicta. Posterior editio. Perusiae, ex typographia Haeredum Petri Thomasii, MDCXLVI. Superiorum permissu.'

Ptolemy's astrological works: dedicatory letter from Petrus Thomasius's heirs to 'Tancredi Borbonio ex marchionibus Sorbelli' (a_3r–[a_4]v); chapter index ([a_5]r–[a_6]v); ***Ptolemaica*** **(1–344 and 345–370)**; *Errata* ([371]).

Bibl. ---

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3083

1–344 ‘Claudii Ptolemaei mathematici operis de iudiciis astrologicis libri quatuor. Liber primus. Praefatio. Duo sunt, Syre, per quae praedictiones astrologicae extruuntur, praecipua et maxima. Unum, quod primum ordine est, et potestate, quo deprehendimus quolibet tempore motus Solis et Lunae et aliorum siderum — Haec de consideratione temporum hoc loco dixisse sufficiat. Genera eventuum in quibusque temporibus non attexam, eo quod, ut initio proposuimus, universali stellarum efficacia cognita, particularia consequenter accommodari possunt, si apte cum mathematici causa, iuncta fuerit etiam causa mixtionis.’
= **Ptolemy, *Quadripartitum*, tr. Philipp Melanchthon (A.2.11)**. Book I, 1–82; II, 83–156; III, 157–275; IV, 276–344.

345–370 ‘Claudii Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.’
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Leiden, Franciscus Moyardus, 1654

‘ΠΡΟΚΛΟΥ ΤΟΥ ΔΙΑΔΟΧΟΥ ΠΑΡΑΦΡΑΣΙΣ ΕΙΣ ΤΗΝ ΠΤΟΛΕΜΑΙΟΥ Τετράβιβλον. Procli Diadochi Paraphrasis in Ptolemaei libros IV De siderum effectionibus a Leone Allatio e Graeco in Latinum conversa. Lugduni Batavorum, ex officina Francisci Moyardi, Bibiopolae e regione academiae, 1654.’

Ptolemaica (single text), preceded by a preface to the reader ($^{*}_{2}$r–$^{*}_{2}$v) and a chapter index ($^{*}_{3}$r–[$^{*}_{4}$]v).

Bibl. *---*

Exemplar Munich, Bayerische Staatsbibliothek, A.gr.b. 3027 b

1–294 ‘Procli Diadochi Paraphrasis in Ptolemaei libros IV De siderum effectionibus. Liber primus. Cap. I. Prooemium. Cum duo sint, Syre, quae ad futurorum praesagitionem, eam scilicet quam syderum scientia consequi possumus, animum praeparant — accommodari poterit, si apte cum mathematici causa, ipsius etiam temperamenti causa coniungatur. Finis.’
= **Proclus (?), *Paraphrasis in quatuor Ptolemaei libros De siderum effectionibus* (C.2.40)**, together with the Greek text in two columns. Book I, 1–77; II, 78–148; III, 148–241; IV, 241–294.

Padua, Paulus Frambottus, 1658

‘Cl<audii> Ptolemaei Pelusiensis mathematici Opus de siderum iudiciis quadripartitum e Graeco codice in Latinum sermonem per Antonium Gogavam Graviensem, iampridem translatum cum approbatione Gemmae Frisii medici et mathematici clarissimi, denuo

editum praepositis ad singula capita breviariis vel notationibus D. Placidi de Titis Perusini a mathematicis sereniss<imi> et reverendiss<imi> Leopoldi Guilelmi archiducis Austriae etc., et in Florentissima Ticinensi academia mathematices interpretis, Patavii, 1658. Typis Pauli Frambotti. Sup<eriorum> permissu.'

Placido Titi, dedicatory letter to the members of the Senate of Milan ($§_2$r–$§_3$r); Gemma Frisius, preface to the edition Leuven 1548 ($§_3$v–$§_4$r); Placido Titi, letter to the reader ($§_4$r–$§_5$r); chapter index of the *Quadripartitum* ($§_5$v–$§§_1$r); *Errata* ($§§_1$v–$§§_2$v); ***Ptolemaica* (1–178 and 179–192)**. The exemplar used is paginated 1–168 and 149–192.

Bibl. ---

Exemplar Florence, Biblioteca Nazionale Centrale (published by Europeana Collections, shelfmark not given).

1–178 'Cl<audii> Ptolemaei Pelusiensis mathematici Opus de siderum iudiciis quadripartitum cum breviariis ad singula capita D. Placidi de Titis. Liber primus. Cap. I. Duo innuit cognoscenda in hac arte, familiaritates astrorum per motum acquisitas et eorum ad agendum naturas... Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima. Unum quod primum et loco est potestate, quo Solis, Lunae et stellarum motuum configurationes — si mathematici causam erudite cum ea quae extemperatura nascitur, comparemus. Finis libri quarti.'
= **Placido Titi, *Claudii Ptolemaei Pelusiensis mathematici Opus de siderum iudiciis quadripartitum cum breviariis ad singula capita* (C.2.42)**. Book I, 1–51; II, 52–94; III, 95–160; IV, 161–178 (with pp. 169–198 wrongly paginated 149–178).

179–192 'Claudii Ptolemaei Centiloquium sive Centum sententiae Io<vanni> Ioviano Pontano interprete. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — sin non moventur provincialis hostis erit. Finis.'
= **Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16)**, without the commentary.

Lyon, Joannes Antonius Huguetan & Marcus Antonius Ravaud, 1663

'Hieronymi Cardani Mediolanensis philosophi ac medici celeberrimi operum tomus quintus, quo continentur astronomica, astrologica, onirocritica, contentorum huius tomi seriem index titulorum exhibet. Editio ut caeteris elegantior ita et accuratior. Lugduni, sumptibus Ioannis Antonii Huguetan et Marci Antonii Ravaud, M.DC.LXIII. Cum privilegio regis.'

Girolamo Cardano's complete works, vol. V: table of contents (a_2r–[a_4]v); *De temporum et motuum erraticarum restitutione* (1–14); *Liber de providentia ex anni constitutione* (15–28); *Aphorismorum astronomicorum segmenta septem* (29–92); ***Ptolemaica* (93–368)**; *De septem erraticis stellis liber* (369–432); *Liber de iudiciis geniturarum* (433–457); *Liber de exemplis centum geniturarum* (458–502); *Liber duodecim geniturarum* (503–552); *De interrogationibus*

libellus (553–560); *De revolutione annorum, mensium et dierum ad dies criticos et ad electiones liber* (561–575); *De supplemento almanach libellus* (575–592); *Synesiorum somniorum omnis generis insomnia explicantes libri IV* (593–727); *Encomium astrologiae* (727–728).

Bibl. ---

Exemplar Facsimile edition *Hieronymus Cardanus Opera omnia. Faksimile-Neudruck der Ausgabe Lyon 1663 mit einer Einleitung von August Buck*, 10 vols, V, Stuttgart-Bad Cannstatt, 1966.

93–368 'Claudii Ptolemaei Pelusiensis libri quatuor de astrorum iudiciis cum expositione Hieronymi Cardani. Prooemium expositoris. Libros hos antiquorum more de iudiciis inscripsit Ptolemaeus Pelusiensis Aegyptius, unde Alexandrinus etiam dictus est... (94) Liber primus. Prooemium authoris. Caput I. Textus I. Duo sunt, Syre, quibus pervenitur ad astronomicas praedictiones, praecipua quidem et maxima... Commentarius. Authores prooemia faciunt, ut quod non ex arte est ad artem tamen est necessarium explicetur — et nova directio per meridianos iuxta proportionis aut circulos positionis reditus an processus significatorum electio. Et loci mutati aut mutati ingressibus comparati.'
= **Girolamo Cardano, *In Ptolemaei librorum de iudiciis astrorum commentaria* (C.2.24)**. Commentator's preface, 93–94; Book I, 94–168; II, 169–242; III, 242–309; IV, 310–368.

Ulm, Ludovicus Lanovus, 1674

'Astrologia aphoristica Ptolomaei, Hermetis, Ludovici de Rigiis, Almansoris, Hieronymi Cardani, et autoris innominati. Ulmae, MDCLXXIV, apud Ludovicum Lanovum.' Part II: 'Astrologia aphoristica auct<oris> nominati Hieronymi Manfredi, Cunradi Dasipodii et Bethem.'

Astrology: letter to the reader (I/[¶$_1$]v–¶$_2$r); subject index (I/¶$_2$v–[¶$_{12}$]v); ***Ptolemaica* (I/1–16)**; Hermes, *Centiloquium* (I/17–32); Ludovicus de Rigiis, *Aphorismi astrologici* (I/33–63); *Capitula Almansoris* (I/64–87); Girolamo Cardano, *Aphorismorum astronomicorum segmenta septem* (I/89–290); 'Aphorismi varii incerti auctoris. 1. Qui naturaliter astrologiae bene affectus fuerit...' (I/291–325); 'Aphorismi astrologici incerti auctoris. 1. Constellatio particularis reducit ad actum suo tempore...' (II/1–17); Girolamo Manfredi, *Centiloquium de infirmis et medicis* (II/19–55); ***Ptolemaica* (II/57–76)**; Bethen, *Centiloquium* (II/77–92).

Bibl. VD17 7:658982N

Exemplar Göttingen, Niedersächsische Staats- und Universitätsbibliothek, 8º Astron. II, 6489

I/1–16 'Cl<audii> Ptolomaei Centum dicta sive Fructus librorum suorum. A te et a scientia, fieri enim nequit ut qui sciens est particulares rerum formas pronunciet — [v. 99] et exercituum incursiones indicant. 100. Coniunctio Saturni, Iovis et martis in signis humidis pluvias facit et nives.'

= **Giovanni Pontano,** ***Liber commentationum in Centum sententiis Ptolemaei*** **(C.3.16)**, without the commentary. V. 100 is omitted or rather replaced by a sentence taken from another text.

II/57–76 'Cunradi Dasipodii aphorismi astrologici. 1. Ex calido, frigido, humido, sicco, primis inquam qualitatibus procedunt, secundae qualitates — atque iuxta illam comparationem iudicare.'
= **Conrad Dasypodius,** ***Aphorismi astrologici ad lectionem Apotelesmaton Ptolemaei utiles*** **(C.2.33)**.

Plates

INCIPIT LIBER PROGNOSTICORUM

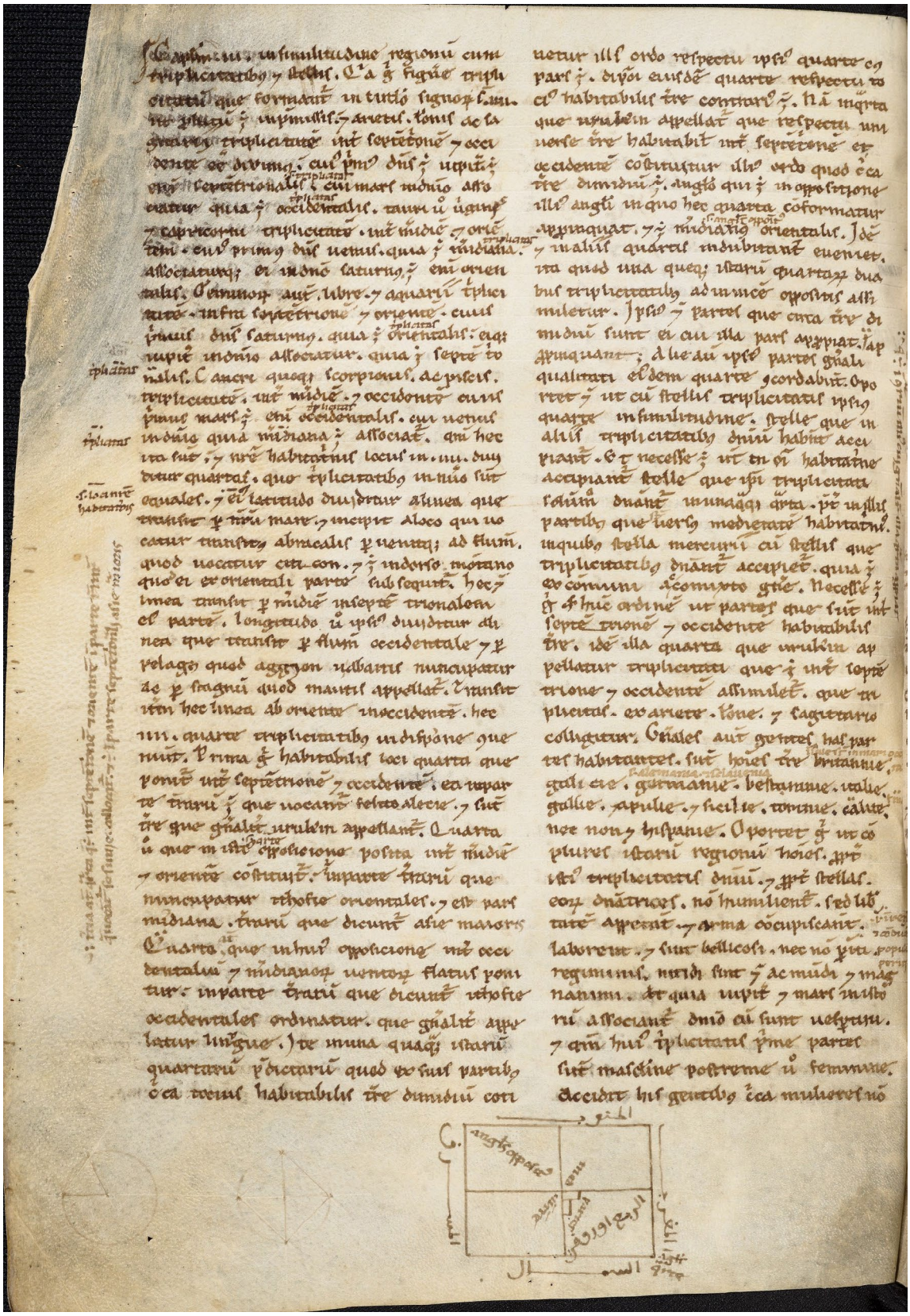
ARATI PROGNOSTICA SOLIS ET LUNE.

Sol cum fuerit in arietem luna in tauro p̃ma. Videbitur cum a sole dissidens parab: x. In tauro cum luna aberit a sole parab: xii. tunc apparere incipiet. In gemin̄is cum luna a sole aberit parab: xiii. tunc apparebit. In cancro cum luna a sole aberit parab: xvi. tunc apparebit. In leone si luna et sol coeuntes fecerint cum luna xviii. parabus aberit apparere incipiet. In uirgine cum a sole degressa distantab: parab: xx. a occidentali loco fuerit apparere incipiet. In libra hoc facit quod et in uirgine. In scorpione cum a sole dissidens fuerit parabus xviii. tunc apparebit. In sagittario distantibus parab: xvi. apparebit. In capricorno relicta parabus xiii. apparebit. In aquario cum a sole dissidens fuerit parab: xii. tunc apparebit. In piscibus eosdem quos in arietem parabus xi. simul eisdem a sole recedens fuerit tunc apparebit.

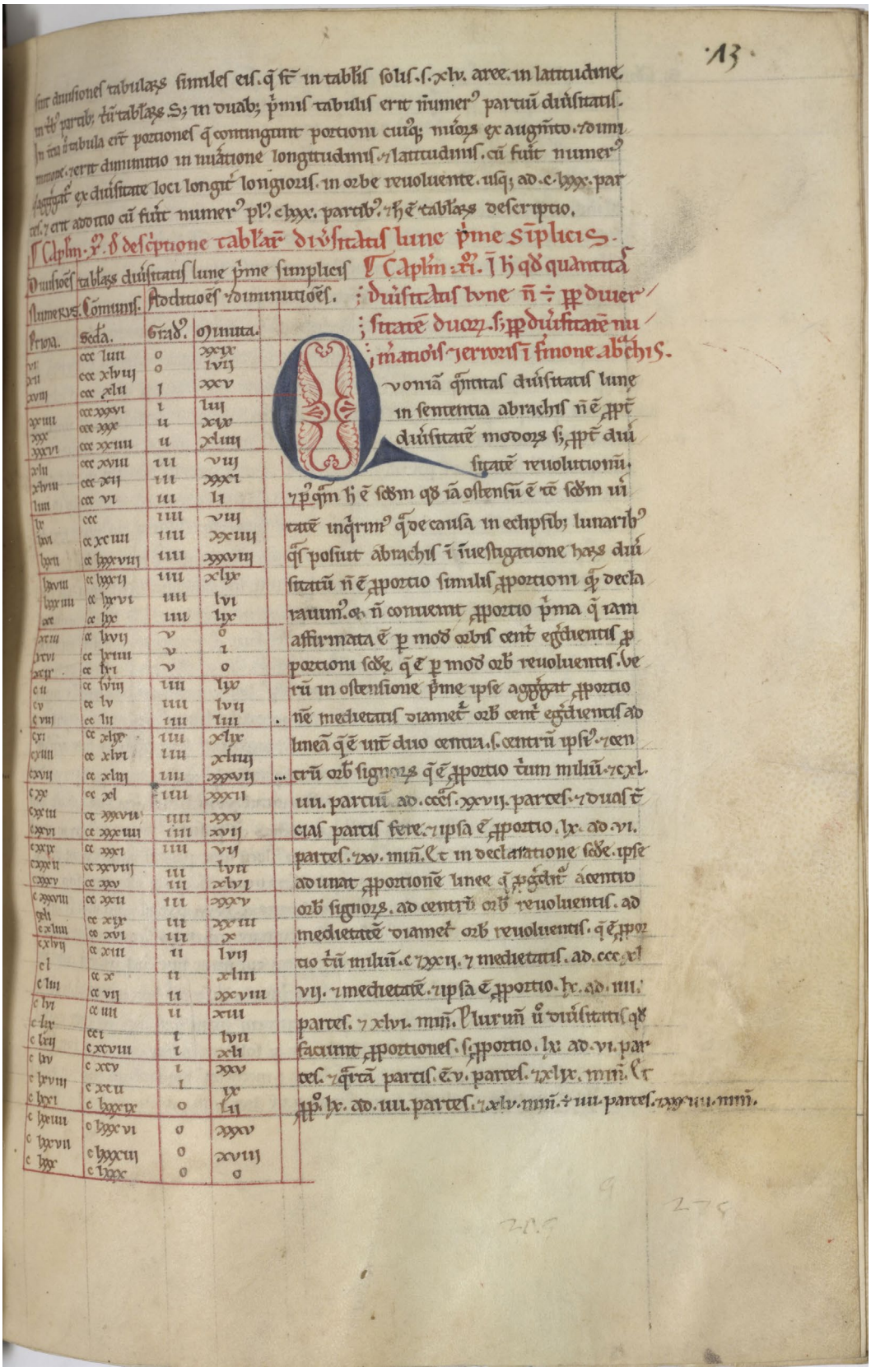
LUNE HORARIUS CURSUS SIC INUENIT

partes quot in die currit uerbi causa currit partes xii. minutas xxiii. has solutas in minutas .ccc.xlviii. has in xviii. ari. xxxi; postea uidebis quid ad signum minuisse aut amplius et quod erit uidebis quid faciat in xxxi. PRECEPTUM INGREDIENDI CANONIS TOLOMEI. Intellectus climatum polus epi sem̄e requirit si inuenerit placos ciuitatis abidate ee intra partes xv. et minutas xv. que computatio ad orizontem solum et medium celum pertinet. In primo climate id est mero requirit orizontem si placos ciuitatis excesserit partes xv. et minutas xv. usq: in partes xxiii. minutas li. In secundo climate requirit id est si ei ne si excesserit ciuitatis placos partes xx[illegible] et minutas li. usq: in partes xxx. et minutas xxii. In tertio climate requirit id est in egipto diatessaron cathoron si excesserit ciuitates placos partes xxx. et minutas xxii. usq: in partes xxxvi. In quarto climate requirit id est rodos si loci placos excesserit partes xxxvi. usq: in partes xlv. et minutas lvi. In quinto climate requirit id est hellespontum si placos excesserit partes xl. et minutas lvi. usq: in partes xlv. et minutam unam. In sexto climate requirit id est mesopontum si placos regionis excesserit partes xlv. et minutam unam usq: in partes xlviii. et minutas xxxii. In septimo climate requirit orizontem computationem id est boristenem si ciuitatis placos excesserit partes xlviii. et minutas xxxii. usq: id quod excesserit in septimo climate requirit meros ciuitatum et hiperoce earum. Computatio urbis rome meros habet partes xxxvi. minutas xx. Alexandrie egipti meros habet partes lx. minutas xxx. In ceteris partes xxiii. minutę x. hanc hiperocam diuides inquirens decimam quotiens poteris et primum feceris semel et dimidium

1. The earliest Latin Ptolemaic MS (*Preceptum canonis Ptolomei*, A.7.1), *c.* 1000
London, BL, Harley 2506, f. 55v



2. The earliest MS of the *Quadripartitum*, mid-12th c., with Arabic gloss
Oxford, BL, Digby 51, f. 88v



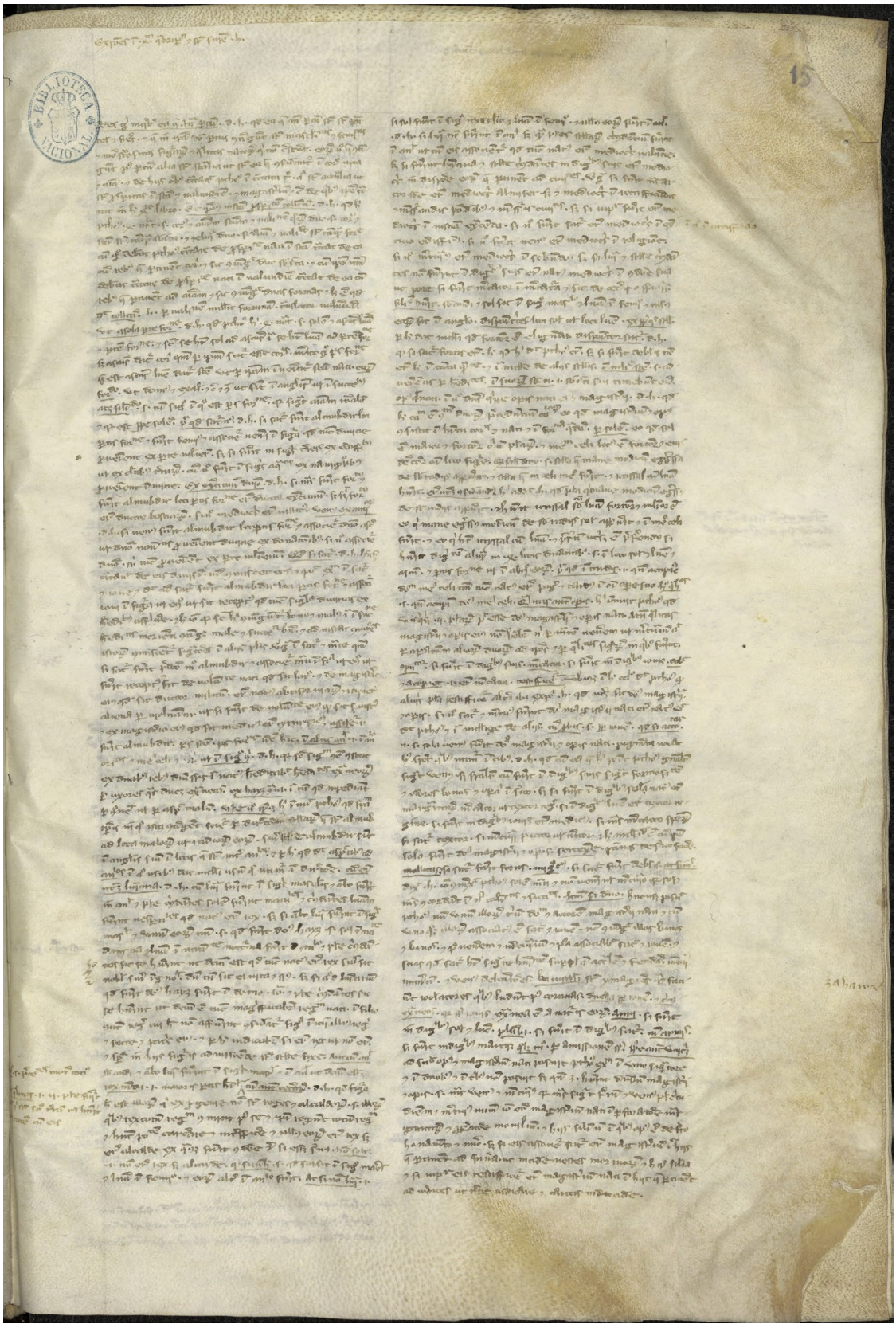
3. The earliest MS of the *Almagest*, *c.* 1170
Paris, BnF, lat. 14738, f. 73r



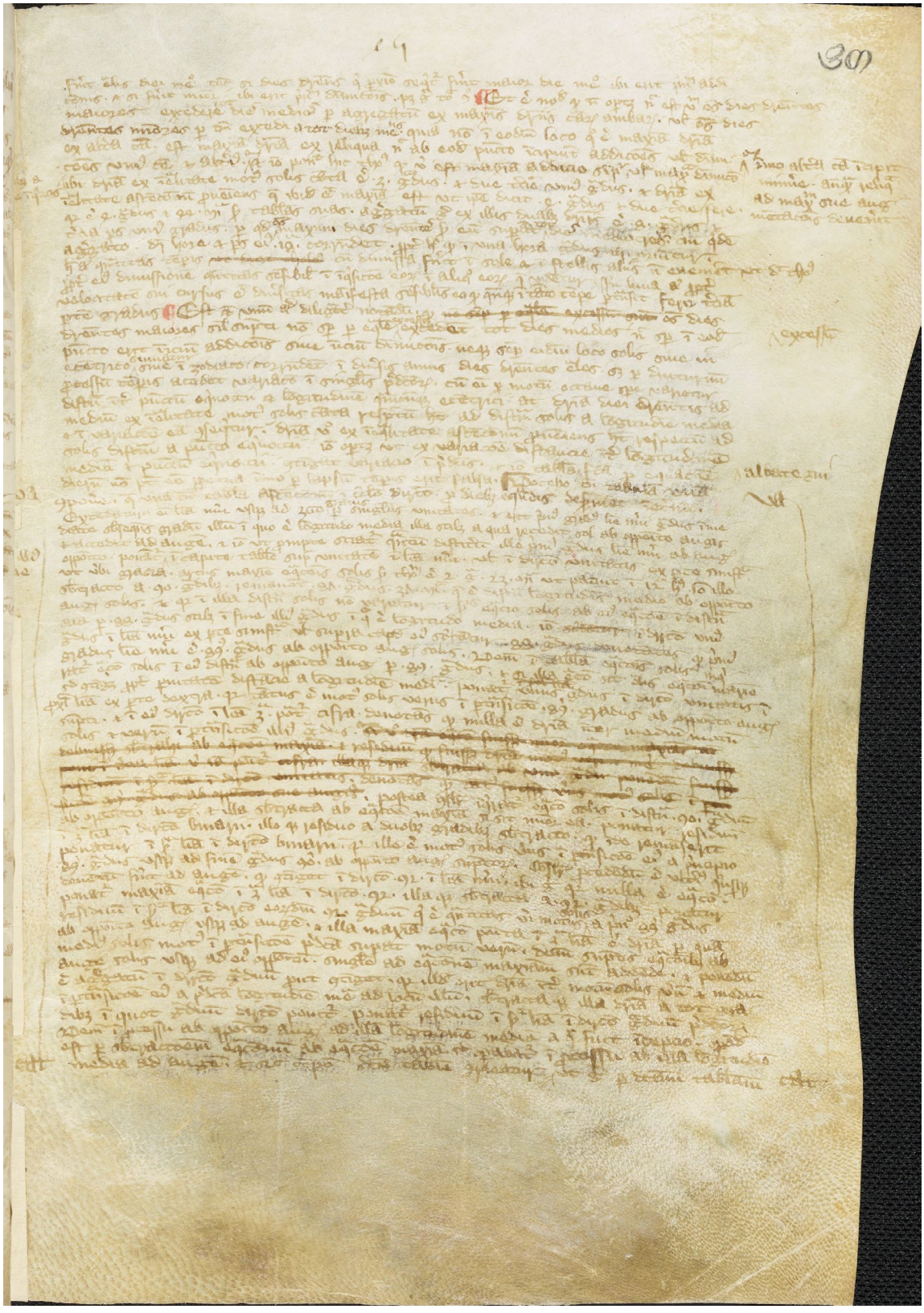
4. Campanus of Novara, copy of and glosses to the *Almagest* (A.1.2), *c.* 1251
Paris, BnF, lat. 7256, f. 13r



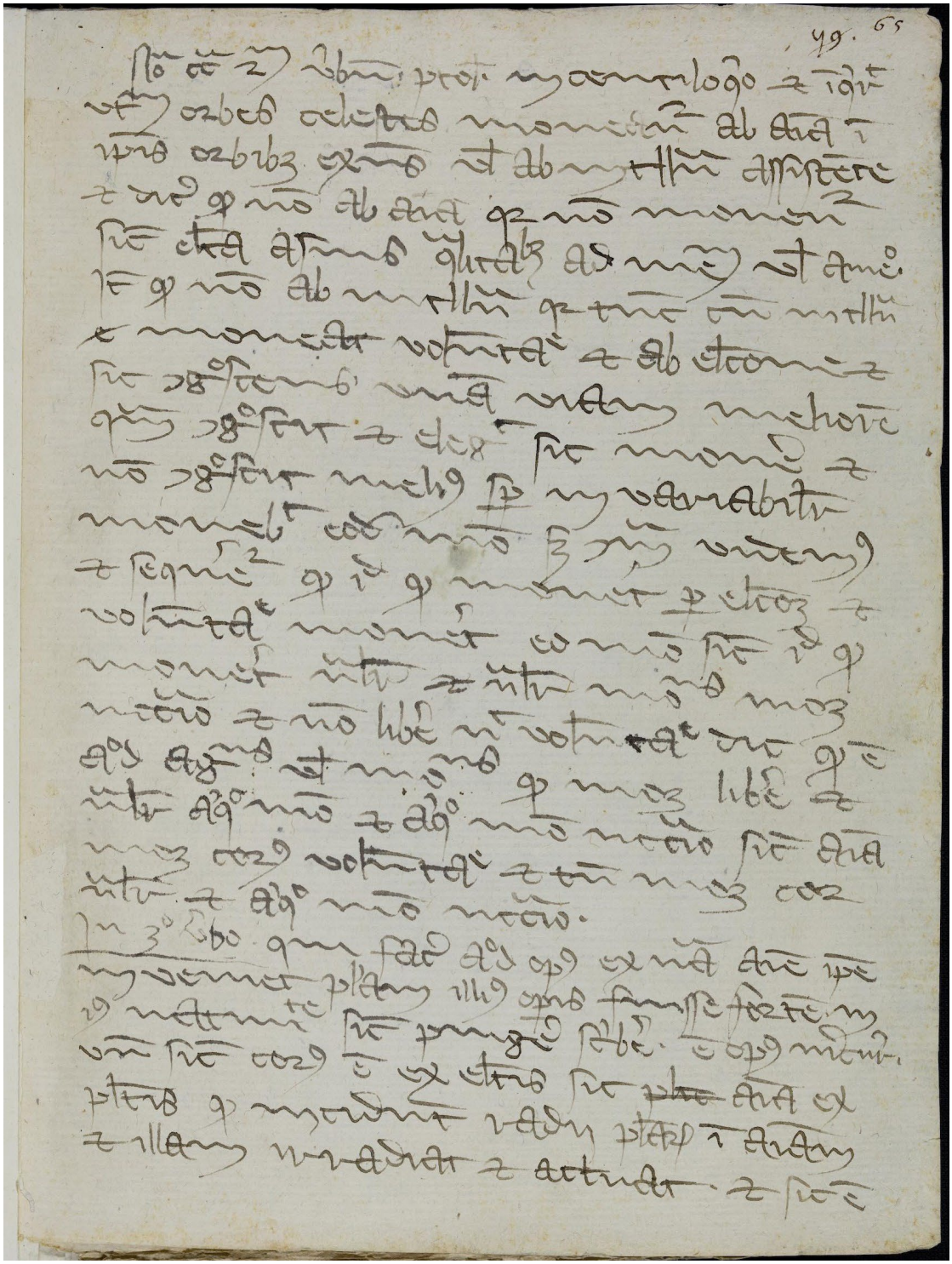
5. William of Moerbeke, translation of the *Analemma* (A.5.1), autograph, 1270
Vatican, BAV, Ott. lat. 1850, f. 64r



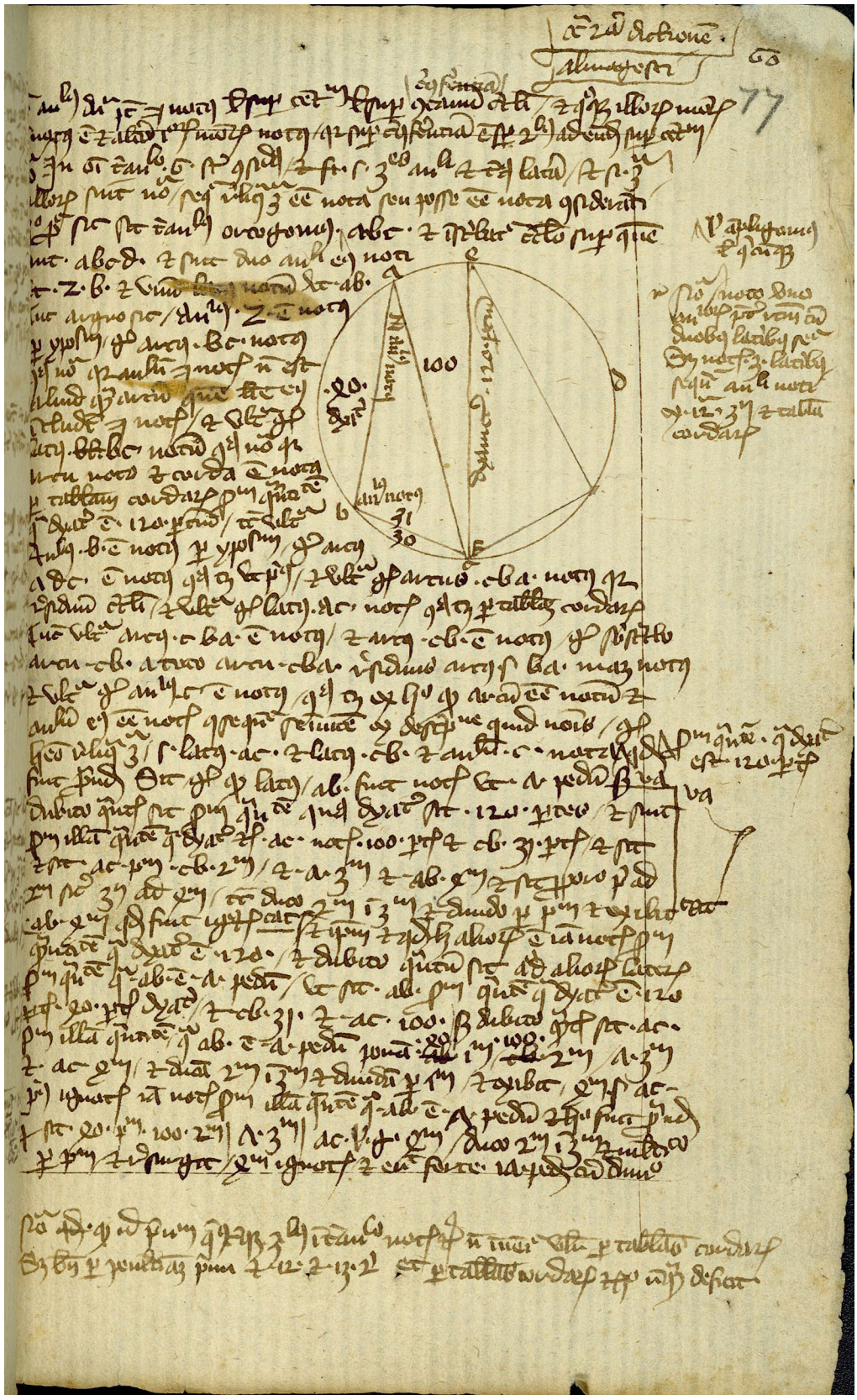
6. Alvaro de Oviedo, *Haly Expositiones in Quadripartitum* (C.2.3), autograph, *c.* 1279-1282
Madrid, BN, 10063, f. 15r



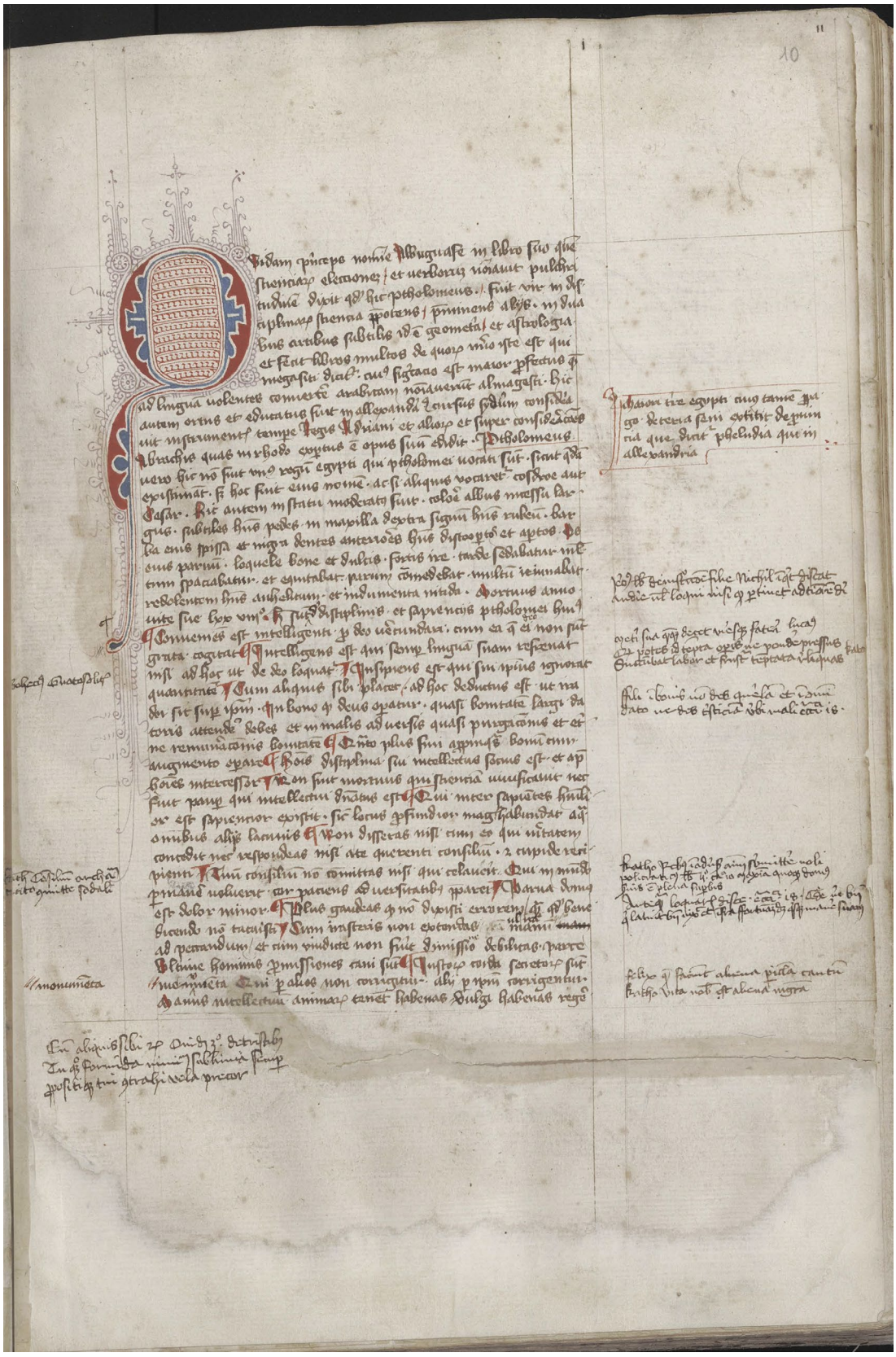
7. Simon Bredon, *Commentum super Almagesti* (C.1.8), autograph, *c.* 1340
Oxford, BL, Digby 168, f. 38r



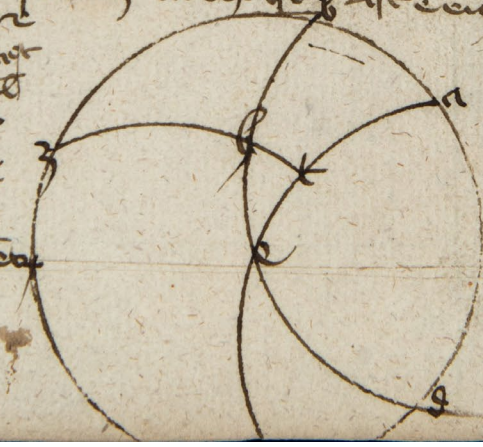
8. Reimbotus de Castro, copy of his (?) *Commentum in Centiloquium* (C.3.8), *c.* 1367-1370 (?)
Vatican, BAV, Pal. lat. 1380, f. 65r



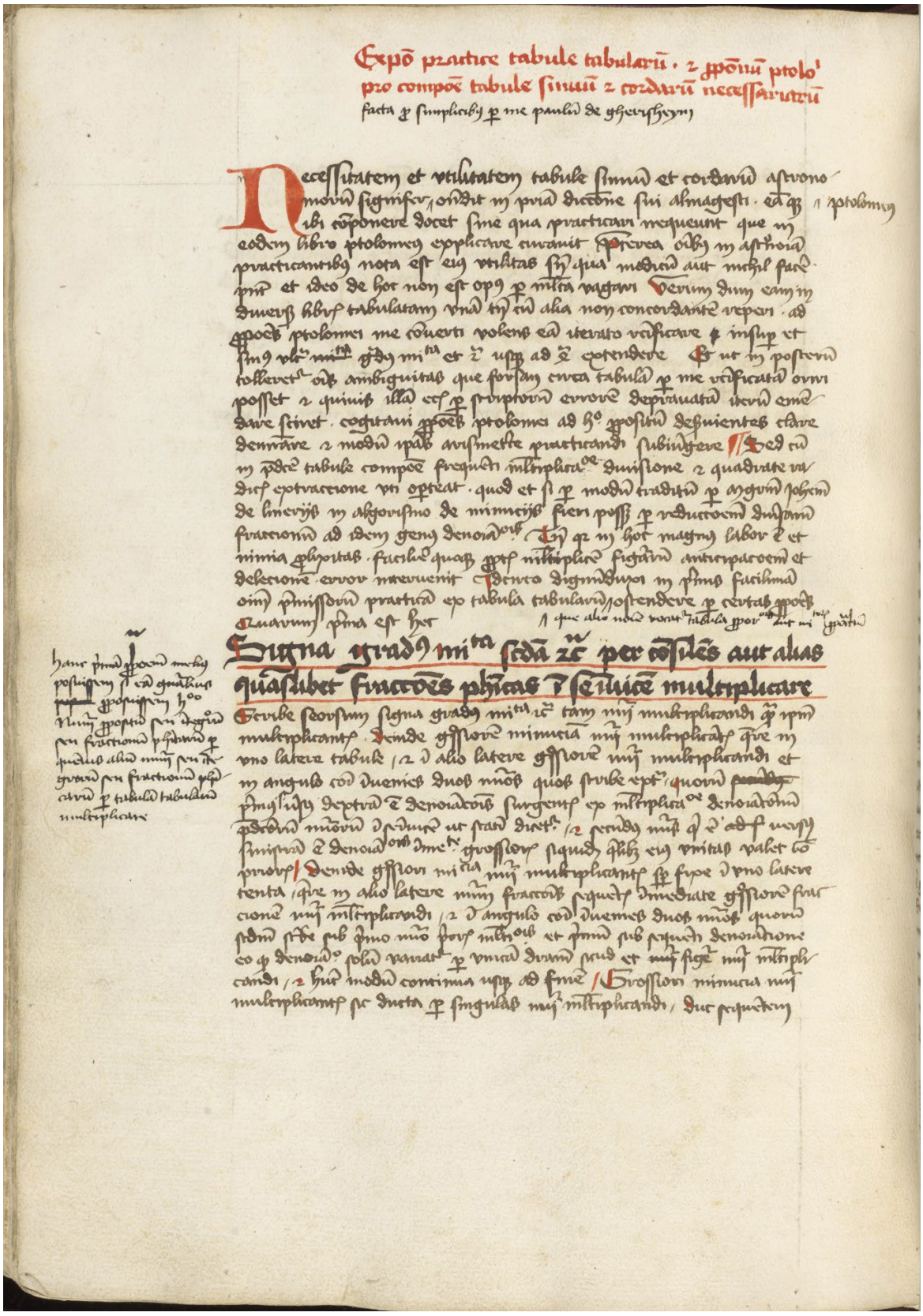
9. Johannes de Wasia, *Annotationes in Almagesti* (C.1.9), autograph, *c.* 1369
Erfurt, UFB, Dep. Erf. CA 4º 349, f. 77r



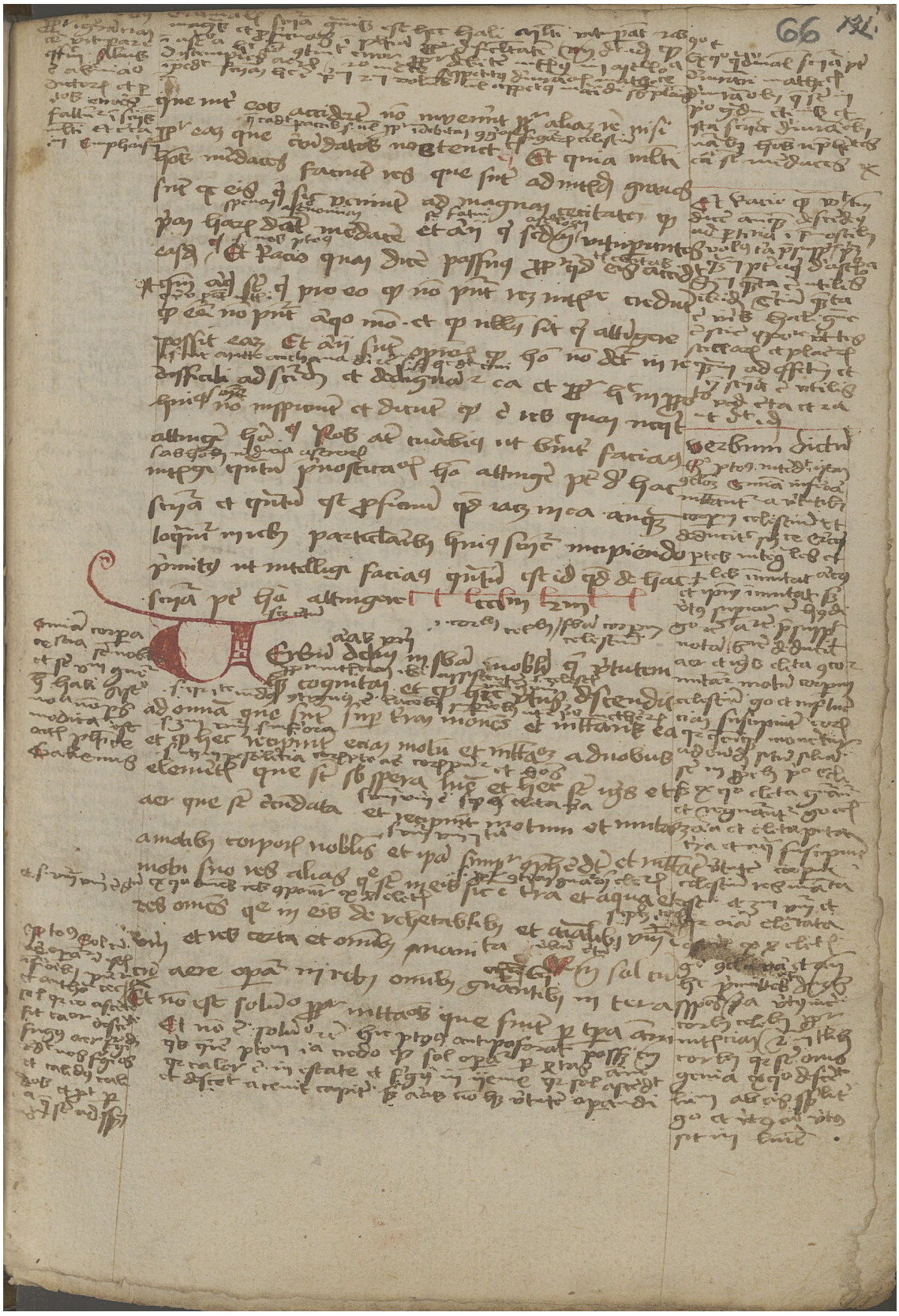
10. Johannes Andree Schindel, copy of the *Almagest* (A.1.2), *c.* 1400
Cracow, BJ, 619, f. 10r



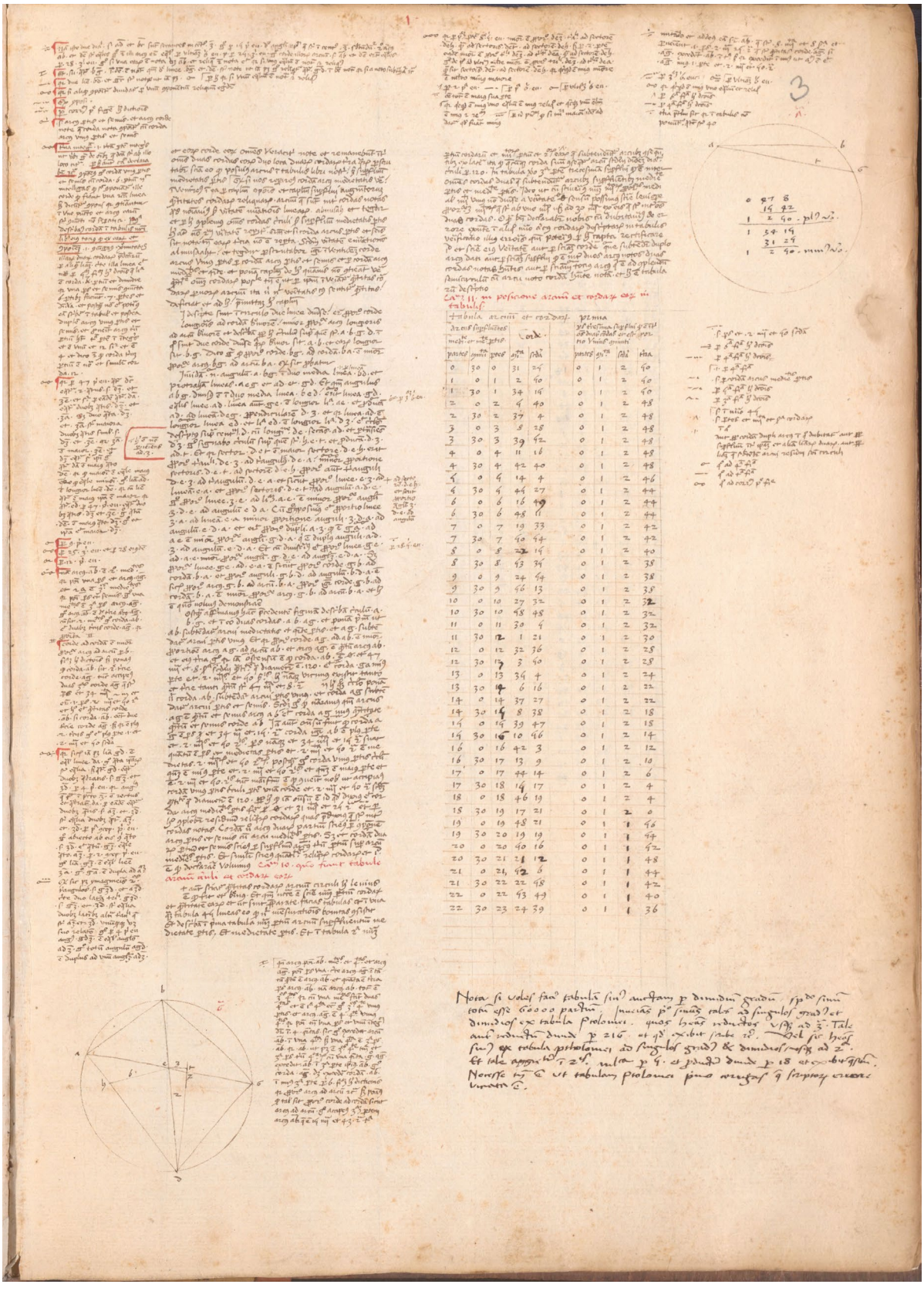
11. Johannes Borotin, student notes of Johannes Andree Schindel's lectures on the *Almagest* (C.1.14), 1413
Prague, APH, O. I (1585), f. 138r



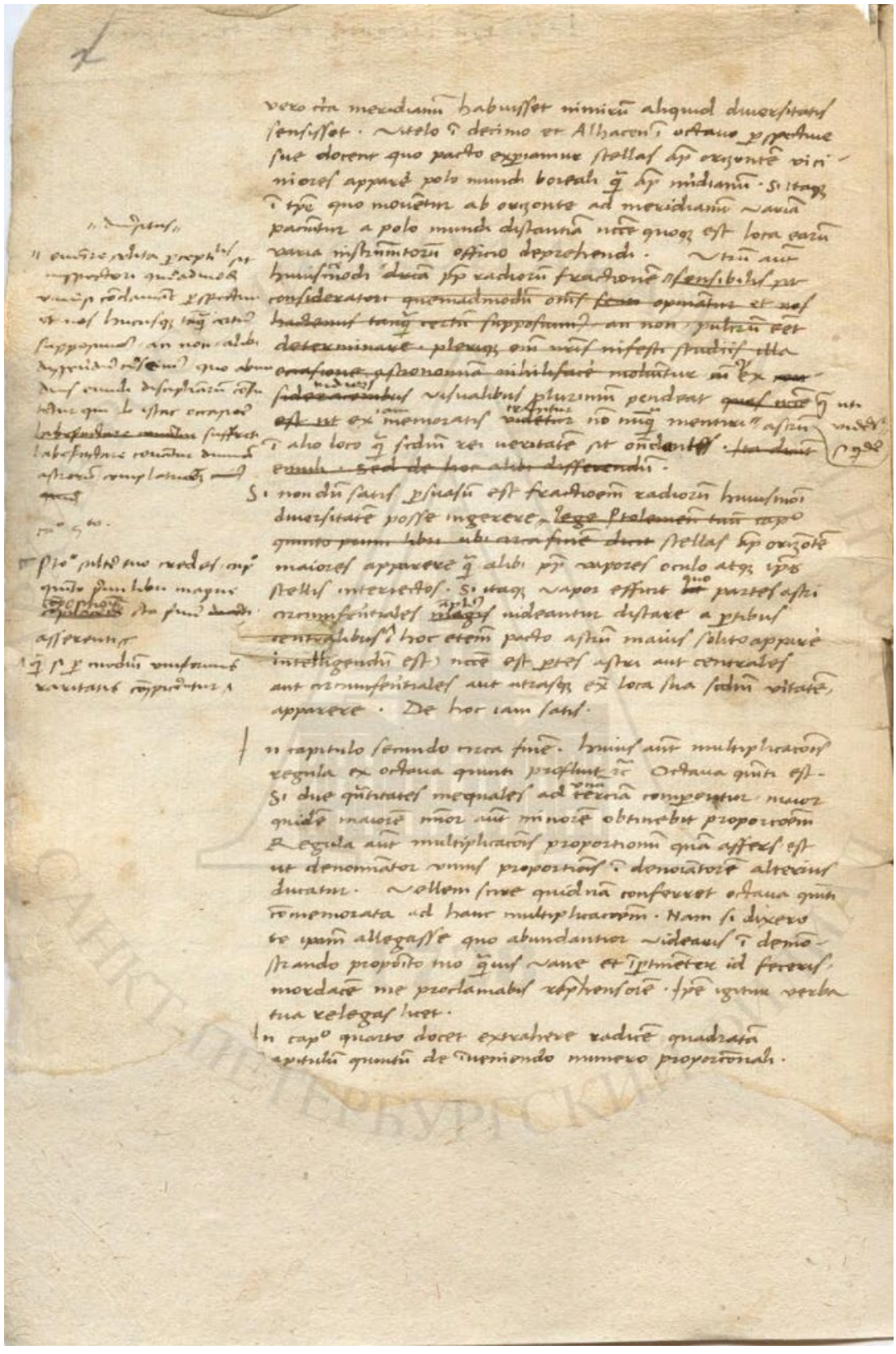
12. Paul of Gerresheim, *Expositio practice tabule tabularum et propositum Ptolomei...* (C.1.16), autograph, 1443
Brussels, BR, 1022-1047, f. 184v.



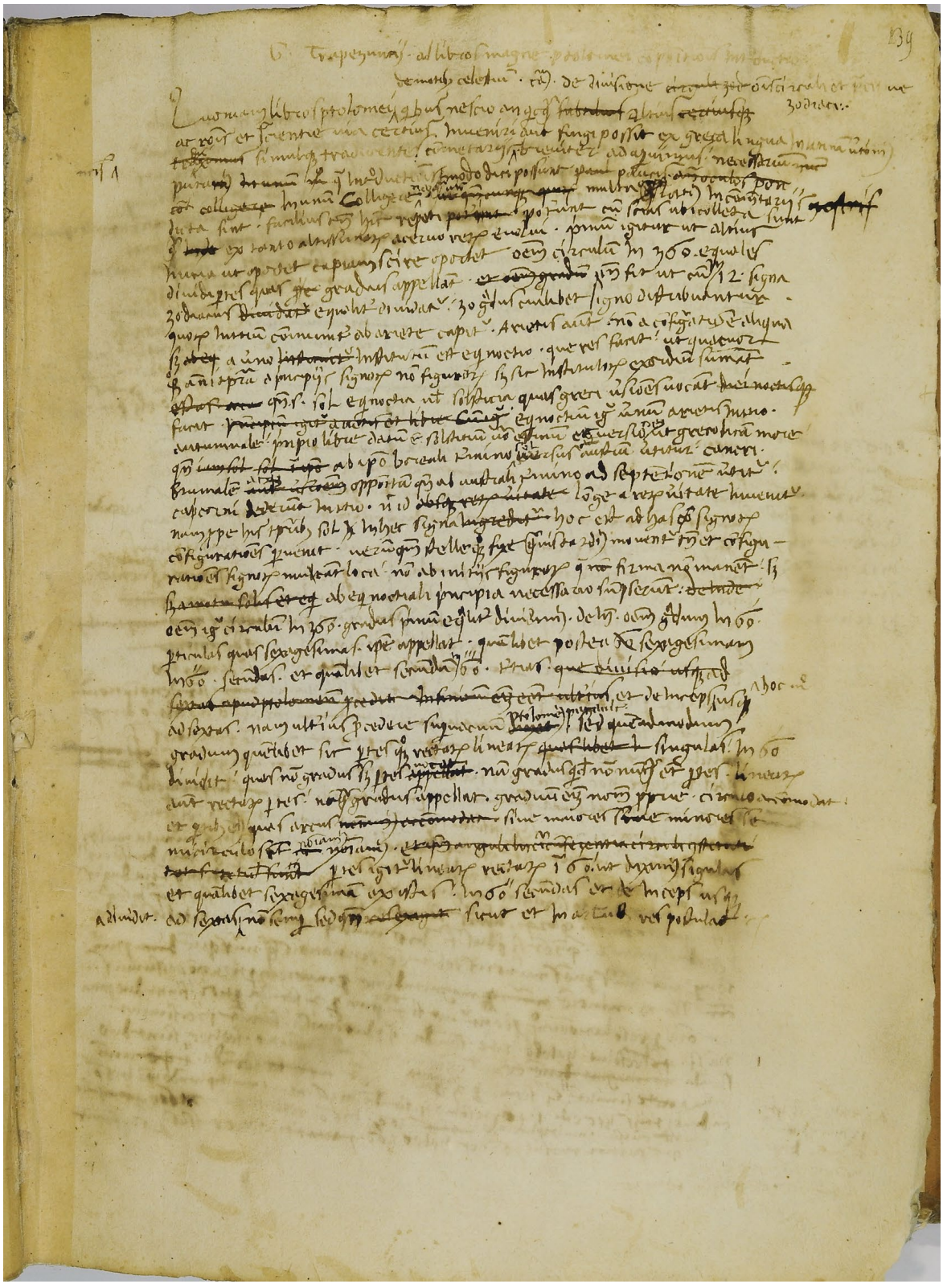
13. Albertus de Magna Opatow, copy of his (?) *Commentum in Quadripartitum* (C.2.6), *c.* 1447
Cracow, BJ, 1859, f. 66r



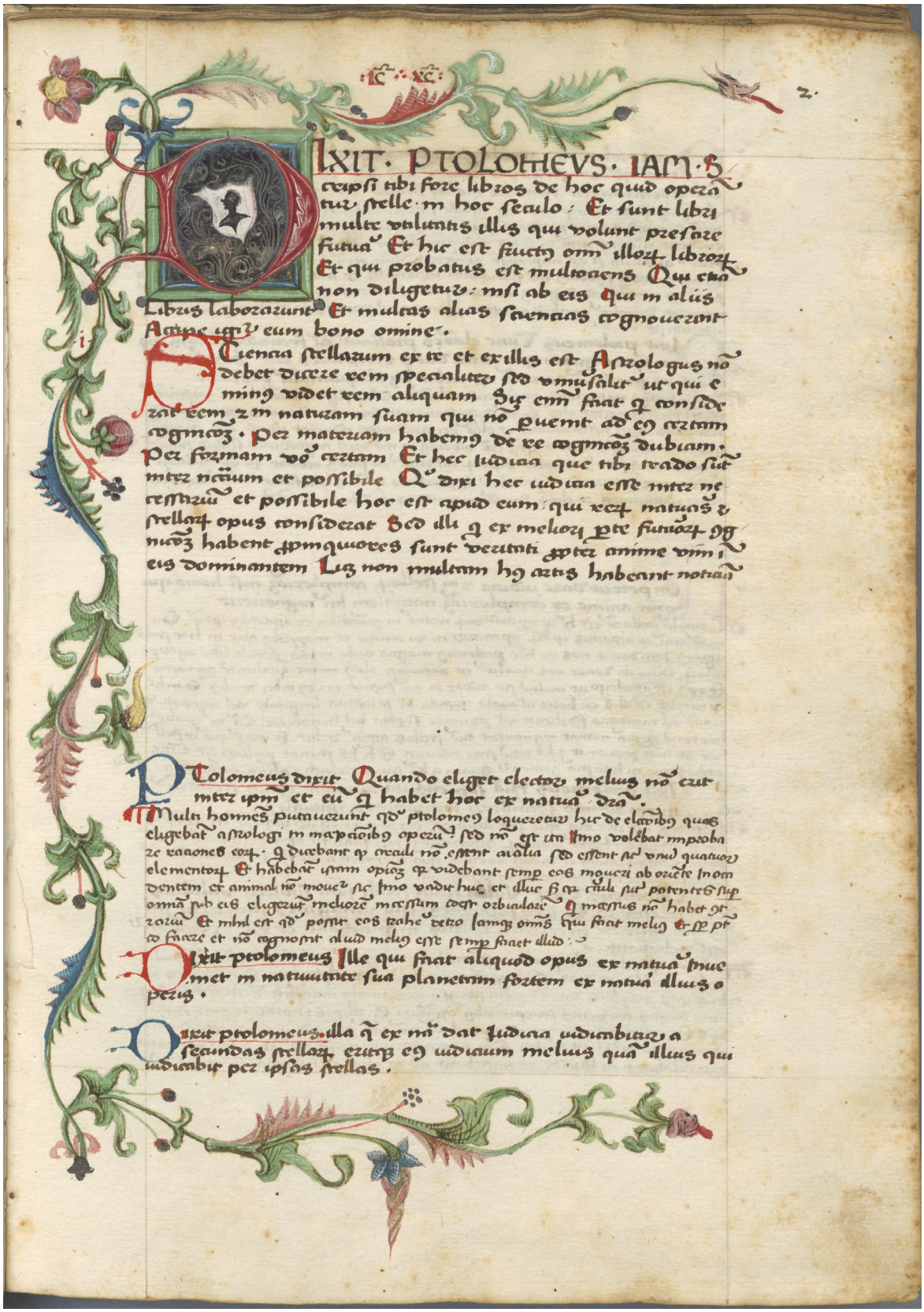
14. Peurbach, copy of and glosses to the *Almagest* (A.1.2), *c.* 1450, with gloss by Regiomontanus (bottom right)
Vienna, ÖNB, 4799, f. 3r



15. Regiomontanus, *Defensio Theonis contra Trapezuntium* (C.1.23), autograph, *c.* 1462-1476
St Petersburg, BAN, IV-1-935, f. 2v



16. George of Trebizond, *Expositio Magne compositionis Ptolomei* (C.1.19), autograph, 1451
Torino, BNU, G II 36, f. 39r

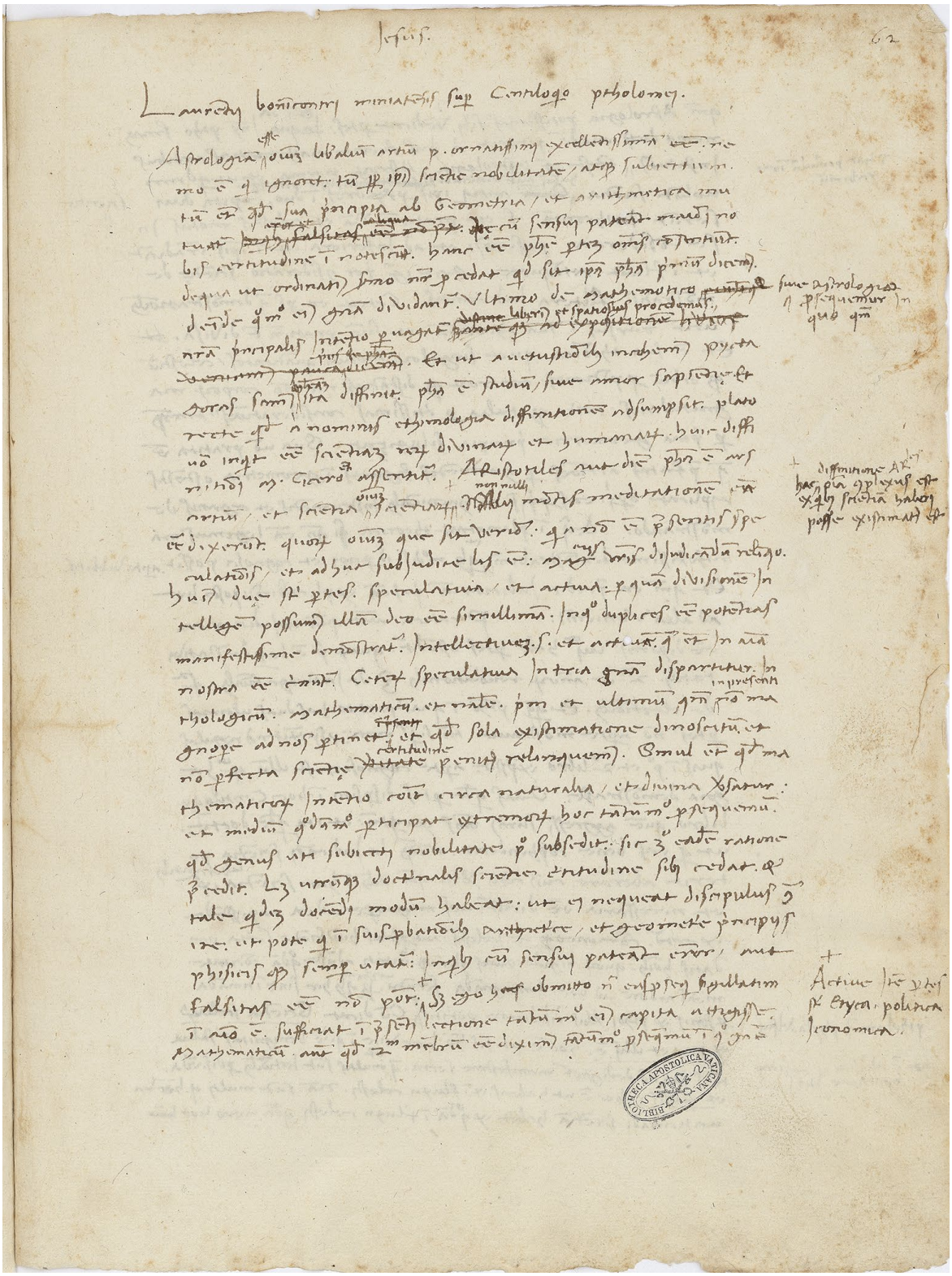


17. Hartmann Schedel, copy of Abuiafar Hamet filii Joseph's *Commentum in Centiloquium* (C.3.1.3), 1469
Munich, BSB, Clm 275, f. 2r

Sapiens anima, conferst celesti actioni quemadmodum
optimus agricola arando expurgandoq; gfert nature

Quanq; generi animalium est omni naturaliter insita tum
mali declinatio, tum boni appetitio, homo tam ppter rationem
cuius est particeps, multo q; cetera alia
et mala ipa
quidnitus
q; multus sibi compare gmodius potest, duplici auxilio
fretus et cois nature: et proprie rationis. fn exgrendis
aut urtibus, i comodisq; repellendis, uersatur ea uirtus
a prudendi illis
que prudentia notata est: cuius est enim utilis, et urtilis.
recti ac prui: uerum item et falsi cognitio atq; distinctio,
Sed exquisita prudentia nisi multo diuturnoq; compari
exquisita usu
exquisita negt: cuius ea laus est, ut ceteraz uirtutum
dux habeatur ac magistra. Q z si tanta est prudentie auc
toritas ac uis, quanto maior debet ee sapiente, qua nihil
est in homine diuinius: siquidem humanaz diuinaq; rez
cognitionem habet. Quoarca si ut ante dictu est, multa
que a stellis porrenduntur mala possint auerti: ubi fuerint
ante quisa et cognita, cur non et bona q ab illis decernu
industria
tur possint prius intellecta rationi et ante q eueniat illustra
poterit tangi
appetendum
patient et postq; euenere sapienti arte gsilioq; magis ac mag
firmari
stabilin? Etenim ut proueniatur e terra, satisq; seminibus
fructus, plenior
colit ille, maior atq; huberior, si agricole diligentia
esse solet
culturq; procnatura cuiq; accesserit, sic conferenda quoq; a stel
lis bona, si sapiens humanus consilium prudensq; adiuncta sit
opere, ea tanqua prochiuore riuo adeuntibus defluent riuo.

18. Giovanni Pontano, *Liber commentationum in Centum sententiis Ptolemaei* (C.3.16), autograph, *c.* 1477
Vatican, BAV, Vat. lat. 5984, f. 177r



19. Lorenzo Bonincontri, *Commentum super Centiloquio Ptholomei* (C.3.14), autograph, *c.* 1477 (?)
Vatican, BAV, Vat. lat. 3379, f. 62r

6053.

Almemato .f. Sirigatti sup quatripatito ptholomei.

Scientia stellar est ars a principijs ctis aliar scientiar proueniens. quibus ea que accidunt possunt scirri. cuius principia i physi et quadriuiali scientia comphenduntur.

Astrologia iduas diuiditur partis. i theoricam. et practicam. illam determinare celestiu spar naiu stellar q; motus hac eorum x effectus qt ad iudicia ptinet.

Judiciaria hui sci quatuor ht partis ideo et quadripriti liber sic dr. pma oniu gtis. hr forme huic simulis. tertia spis qt cuiq; potest accidere. q, uerta de rebus extrinsecis.

Propter figuras stellar illis cotingentes motuu suor ca fiut res generationes et mutationes duisse i hoc mudo i sublunari.

Corpora celestia dant rebus i sublunarib; uirtutem siles rebus ipis habentibus aptitudinem naturalem ad eas recipiendas.

Albumassar duc quadripartitum no huisse scm a ptholomeo philadelpho qui codidit libru almagesti. cotra que sut forme oniu sententie. et hali ipi comentator.

Qemadmodu bonus medicus potest pnosticari de salute et morte egrotantis. ita astrologus de rebus futuris. qm unicuique scientie sut sua signa. ide etia naute. et agroz cultores efficere possut. ide augures. et ples alij effice certis possut signis. ita; pnosticationis scientia multar e spetiez. sed astrologia aliis oniby certior est.

de pronosticandi scientia. ex testu. et comento.

Dual esse res quibus pronosticandi scietia pficitur. et has maiores aliis. quia de onibus rebus pt cognoscere astrologus. et nobiliores ceteris qa de altis tractando excellentiam hui sci extollimus.

Pnia nosse oportet ordine et motu solis et lune. et aliar stellar

Almagne compositionis ptholomei Libri a Georgio Trapesio traducti incipiunt feliciter

Prefacio auctoris Capitulum primum

Etsi plurime mi videant o Syre qui bene
phili sunt speculatiue phie ptem ab
actiua segregasse / Nam et si actiue ac-
cidat pti vt ipis speculatiua sit magis
ti deum ni ipis inhereres nō solū ꝑ
tēs ille virtutes morales absq; diui-
plina ꝓfecte nullus messe put · ni speram scipam
ti doctrina sequeti nupq; le sit / Huiꝰ maxima cā
ꝙ virtutes in activa ꝙ sequti actione que in ipis
rebus bene in activa ꝙprogressu speculandi fieri
solet / Hinc opus esse mihi putauiꝰ vt actiue
quidem cogitandi motibꝰ sic tempꝰ q̄ ne in tui-
ipis quidem ociosatione eius oblitiscam̄ que ad
pulcra ordinata ꝙ mentis ꝙstitutiꝰ pduxat / Dum
aut magis ad doctrina theorematū que pulcra
pulcherrima ī sint et ꝓpria illoꝝ que ꝓpe humana
deuiat̄ gustamꝰ / Quomode magꝰ admodū Aristo-
teles speram ptem in tria cuiusq; genꝰ pitibus
phicū mathesi theologicū / Tria ni res eius ꝙ
tia et sola et motu carere quoꝝ sola quibꝰ im-
me ſeorsū a subiecto lucubi possint intelli-
gi ti sic ceteris possint / Prima quidem qui
dē motus cui si quis in prima singulis accipi-
at dei inuisibilem atq; immobilem esse arbitrat̄ et
doctiꝰ grecus qd ni hoc versat̄ theologicū ap-
pellant Altissima cui nichil actus hic supat et
a sensibilibꝰ omnio sibi separata supra illa penitus
intelligit / Genus at̄ sit mobiles substātie que
ī inuenit inquirunt ꝙꝝ tria molle ac dulce al-
bū et rotundū et sita distat mire phicū contemplat
ti orbe inerrantibꝰ plenoꝝ et sublimia
motum natū ocidit sequi inuisibilē ac magnitudi-
nis et ad hec magnitudinis loci tempus atq; situs

Iouiani pontani Expositio in verbū. 51. Centiloquij Ptholomei :~

Circulū geniture in egitu nati ab ūte
ro sdm verbū 51. sic epthit Primū ad te
pus datum inuenat locū Solis cum quo erigatur
eli figura ad quā impona locū Lune Deinde
si Luna fuerit supra orizonta. accipiatur numerꝰ
gdūm mediantū inter gdum ardentē et Lunam
Cum hac gdū summa ingrediat in tabulā moraꝝ
et sub titulo. Tempꝰ more occidentaliū. Inuenet
Mora nati in vtero quo ad dies horas et minuta
que equent proportionē suā Huiusmodi vbi Luna
fuerit sub orizonte. Numerent q: media inter asce
dens et Lunam et Mora sub titulo Tempꝰ more
orientaliū accipitur :~

Hdō in vnū colligatur totum Tempus anni nati scz dieꝰ
horis t minutꝰ quod ante egitū effluxerit a Ianua
rio incipiendo Ab hoc deinde in vnum collecto subtra
hat Mora superius inuenta Si nō potest adiungat
collecto dies anteriꝰ vnig aut plurimoꝝ precedēs ami
Et habebit tempꝰ casus seminis vel Concepcionis
in diebus horis et minutis Mensis dico vltimi apd
quem tempus receptum est :~

Tertio An autem tempꝰ dies casus seminis sit inuentū
sit verū sic discernetur hac proba Cum diebꝰ mo
re ingredie in tabulā medy motꝰ Lune moraꝝ
in tabulā quod dicet cum diebꝰ horaꝝ tc
Hunc Lune motū minue a medio motu Lune
inuento ad tempus egitꝰ Et residuū comparandum
est ad gdū ascendentem tempori egitꝰ calculatum
Si em tale residuū propinquꝰ ē ad gdū ascenden
cum .13. gdibus versꝰ quemcuꝫ partem ascendentis
sic dies primus inuentꝰ. est verꝰ dies seminis. Verū
vbi residuū a gdu ascendent pluscꝫ .13. gdibus
ante distaret tunc sequens dies post primus inuentu
diem est vꝰ dies Concepcionis Si vero pluscꝫ .13. gdꝰ

Österreichische Nationalbibliothek

22. Johannes Schöner, copy of Pseudo-Giovanni Pontano's *Expositio in verbum 51 Centiloquii Ptholomei* (C.3.19), 1506
Vienna, ÖNB, 5503, f. 110r

erit equale ei qđ fit ex et. ī se. igr̄ p 21. sexti proportio ze. ad et. erit
ut pportio. et. ad eh. q̄ p̄ 8. sexti angulus zth. zectus. sed angulus
atq. ē ehā zectus q̄. si deplerimus ab eis zteq cōmune remane-
bit angulus atc. equalis angulo. qtL. quapp arcus ac. et ql. erūt
p 25. sexti equales. Ex hoc itaq̄ clarū ē q̄ linee tc. et tL. secāt duos
arcus equales ab. eq nochali et iterfecāt ī circulū signoz ī duobus
punctis zh. sup q̄bus oportet circūscribi duos parallelos eq nochali

ducto q

Ergo linea eh. cadit sup duo puncta diametraliter opposita ī sphera:
Deinde aute describabamus circulū alīū declinātē ab eq nochali q
locū ortis tenent: ita ut eque secet eq nochalē et iepe q̄dem
secabit circulū signoz ī duobus punctis diametraliter oppositis
ī sphera modo puncto. idest q̄ linea ducēs hunusmōi duo puncta
trālit p polū q̄ ē cētrū eq nochalis. Sit ergo eq nochalis et
abqd. sup cētro. e. et circulus signoz hbtd. diameter eq nochalis
ducens puncta sectionis sit linea bed. ortis aut hatq̄ q̄ qdē eque
secat eq nochalē sup diametros aeq. et circulū signoz ī duobus
punctis ht. dico q̄ si cōiunxerimus h. cū e. q̄ linea recta q̄ locū mer-
dianū obtinet et cōtinuemus ipam usq̄ ad ortis oportet necessario
trālibit sup punctū t. Extrahamus igr̄ he. usq̄ ad ortis in
puncto. t. dico q̄ punctus. t. ē cōmunis ortis et circulo signoz
nā q̄m ī circulo hatq̄. intersecātur due linee ag. et ht. p 34. tertij
qđ fit ex ae. ī eg. erit equale ei qđ fit ex eh. ī et. ei etiā qđ fit ex
be. ī ed. igr̄ necessario bd. et ht. erūt ī eodē circulo q̄. punctus. t.
erit sup circulo signoz sed idē punctus erat sup circulo ortis.
ortis. s. hatq̄. ergo ortis secat circulū signoz ī duobus punctis dia-
metraliter oppositis p̄m sphēram: Alter

Dico q̄ impossibile ē ut he. secet ortē nisi ī puncto t. Si. n. possi-
bile ē secet ipm ī puncto. m. et secet circulū signoz ī puncto
z. q̄m id qđ fit ex ae. ī eg. ē equale ei qđ fit ex he. ī em. et
be. ī ed. et be ī ed. ē equale ei qđ fit ex he. ī em. et q̄. qđ fit
ex he. ī em. ē equale ei qđ fit ex he ī e. ergo em. et ez. sūt equa-
les qđ ē impossibile ergo impossibile ē ut eh. cōmunis secet ortē
nisi ī puncto. t. Ex hoc manifestū ē q̄ libet circulus secās
alterū horū circuloz. seq nochalis vel circulū signoz p equa secat
duos et reliquum per equum: Cum aute hoc ita manifestū
sit inuenemus p porismā semidiametros parallelos eq nochalis
descriptos sup circulo declinis ad semidiametrū eq nochalis.
hoc etn. modo inuenemus ascensiones signoz et cognite co-
gnoscemus quālitate ascensionis eoz sicut ī sphera recta et ī
obliqua. describamus igr̄ eq nochalē abgd. sup cētro e. cuius due

23. Isaac Hebreus, translation of the *Planispherium* (A.6.2), autograph, 1518
Milan, BA, D. 114 inf., f. 77r

Tractatus de quantitate trium solidorum Corporum

Capm primum de distantia lunę a terra.

uia tria cōpora solida partiu-
laria communissima Solis Lunę
et terrę sensibus nris frequentius offeruntur,
ideo motus eorū quantitatē et ad se mu-
tuam ꝓportionē ignorare non conuenit

Ad sciendum quantitates illorū requiritur scientia quid requiratur ad sciendū quantitates trium corpum
diametrorū eorū et sua diametrorū eorū preteriit
scientia distantię illorū ab inuicē sedm q̄ inuit prin-
ceps Astronomię Ptolomęus dicto quinta Almagesti
ca: 15 et 16. Igitur de distantia illorū abinuicem
primū agendū est **Distantia** autē lunę a terra sic
scrutabitur Esto ut ponit Ptolo: dictione pducta ca: 13.
medius motus solis 7 graduū. 31 m̄ ♌ et locus
lunę medius 25 gradus et 44 ♐ Erit ig̃ distatia
☾a ☉ per loca eorū media 78 g̃ et 13 m̄ Vnde
constat q̄ centrū ☾ quod ē distantia centri Epicicli
lunę ab Auge eccentrici ey est 156 g̃ et 26 m̄ ut
pz duplicādo distantia prędicta Argumentum vero lunę
medium 262 g̃ et 20 m̄ et argumentū latitudinis
medium 84 g̃ et 40 m̄ Vnde illud quod est de ęqtōe
medio motu lunę addenda est 7 g̃ et 26 m̄ Quare
erit verus locus lunę 3 g̃ et 10 m̄ ♈ et arg̃tū latitudis
equatū 92 g̃ et 6 m̄ et latitudo lunę ☾ quę luna est
tt fere est in Circulo meridiano. Erat 4 g̃ et 59 m̄
☊ale et declinatio puncti loci lunę in zodiaco 23 g̃
49 m̄ et latitudo regionis Alexandrię in qua erat con-
siderans 30 g̃ et 58 m̄ Ergo 2m eū quę posita sunt

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VINDOBONENSIS

24. Johannes Vögelin, copy of Johannes Andree Schindel's *Tractatus de quantitate trium solidum* (C.1.15), 1520
Vienna, ÖNB, 5277, f. 92r

15

Epitome in apotelesmata ptolomei.

57

Capit. 1m.

Duo pcipua sunt q̃ nra || que ad accidentia futurorum cognitionem

exigunt.

declaratio textus.

Messahalah erat quida ptolomeo familiaris, qui hymnos libros

apotelesmatica dedicauit.

Hec duo naturam q̃ nobilitatem quor hic fecit mentionem ptolomeus,

sunt astrologia quadrimalis, q̃ scientia apotelesmatica, ÷ ea astro-

gie pars que de inditijs q̃ astrorum effectibus tractat, qa sine hijs astro-

gie ptibus, de rebus futuris diuinare potest nemo,

Epitoma :=

Horum autem duorum (que ad rem presentem nra sufficiunt) primum est, astrologia

quadrimalis, que scientia apotelesmatica in ordine in certitudine primum,

Est autem astrologia quadrimalis, que solis q̃ ceterorum astrorum cursum,

aspectus q̃ figuras non solum vnius ad alium sed etiam in comparatione ad terre

globum demonstrat.

declaratio textus.

Quare dicit in ordinatione q̃ mixtione ipsorum, q̃ ordinatione ptolomeus dicit q

astrologia quadrimalis quatuor ad ordinem secundum scientia apotelesmatica

precedere dicit, nec iniuria, nā scientia apotelesmatica ÷ ea astrologie pars q̃

de effectibus astrorum agit, stellarum cursus motusq̃ cognitione q̃ earum de astrorum

significatis, Cū enim mundus iste inferior regatur q̃ gubernetur a latoribus superio-

ribus ÷ ab astrorum cursibus, nāce est ut qui hoc regimen q̃ gubernationem ÷ regi-

minis inferioris intendunt ab astrorum cursu || potentes scire, nāce est ut

ut per astrorum motus (qui sunt huius mundani regiminis causa) cognoscat, nā ignota ca-

25. John Robyns, *Epitome in Apotelesmata Ptolomaei* (C.2.19), autograph, *c.* 1520s-1530s (?)
London, BL, Sloane 1773, f. 57r

26. Giuliano Ristori, *Lectiones in Quadripartitum* (C.2.23), possible autograph, 1547-1548,
with corrections by Filippo Fantoni between 1560 and 1589
Florence, BNC, Conv. Soppr. F.IX.478, f. 1r

CAPVT XIII.

Lunarium distantiarum demonstratio.

Ptolemæus ex Parallaxi Lunæ venatur remotionem eius a terra. Primum igitur inuestiganda erat Media Lunæ. Ea autem eius posita Luna in meridiano circulo existens Luna habet maximam parallaxin. Id quod fit necessario, cum est humi Luna. Vicinis & tenuis tropicum hiberninum cum maxima Latitudine australi. Adhibuit etiam hoc. vt ☽ abesset a ☉ quadrante circuli. eo q̄ in tali distantia proxime accesserit ad terras. iuxta ipsius quidem hypothesi

occasuro

Huiusmodi ergo obseruationem nactus est. anno Vicesimo Adriani. die 13. mensis Athyr lerty Ægyptiorum. horis æquib. 5. 50. post meridiem. solem occidente. Cum ☽a Vicebatur a Vertice distare partib. 50. 55. Nam in regula erant. 51. 35. quibus ea q̄ ex centro circuli. ex circumgyratione instrumenti descripti est. 60. 0. Annos autem Christi fuit. annus. 135. dies q̄. primus Octobris Vespere.

Supputatio motuum ex Ptolemæi tabulis.

Præterierunt ergo vsq. ad dictam Ptolemæi obseruationem a principio Nabonassarei anni ægyptij. 882. dies. 72. horæ. 5. 50. simpliciter. sed exacte. 5. 20.

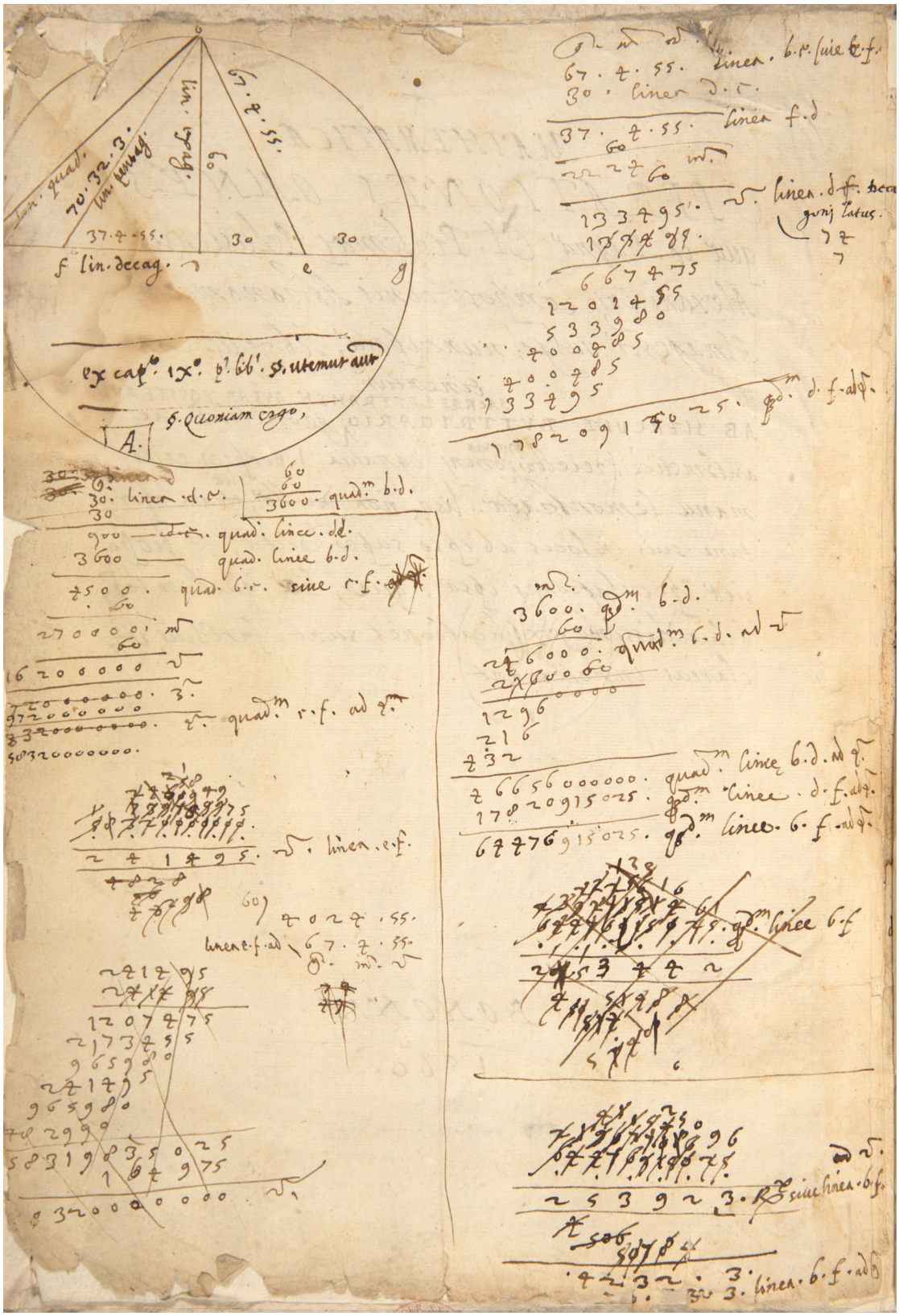
	☉	☽ medius	☽ verus	☊
Epoch. Nabonass.	265. 15. 0. 0	41. 22. 0. 0	268. 49. 0. 0	354. 15. 0. 0
Anni 800	163. 4. 12. 15	37. 24. 8. 52	222. 10. 57. 17	217. 37. 22. 0.
Anni 72	342. 29. 42. 25	315. 19. 28. 37	267. 44. 58. 25	267. 20. 39. 17.
Dies 60	59. 8. 17. 13	70. 34. 58. 34	63. 53. 56. 18	73. 45. 39. 48.
Dies 12	11. 49. 39. 27	158. 6. 59. 43	156. 46. 47. 16.	158. 45. 7. 58.
5. Horæ	12. 19. 15	2. 44. 42. 17	2. 43. 18. 44	2. 45. 22. 1.
20. Scrup.	2. 3. 12	10. 58. 49	10. 53. 15	11. 1. 28.
Medius Obseruatio.	122. 1. 13. 40.	265. 43. 14. 52	262. 19. 51. 15	354. 40. 12. 32

Abest autem a ☊ vsq. ☉ ab orientem
partib. 65. 30.
ab orientem partib. 187. 31. 14.

Idem medius locus ☽
Elongatio a ☉
78. 13. 0.
Duplicata.
156. 26. 0.

Æquat. Eccl. A.
Vera Anomalia
269. 59. 51.
Scrupula proport.
56. 42. stu.

27. Erasmus Reinhold, *Commentum in Almagesti V.12-16* (C.1.28), autograph, 1549
Berlin, SBPK, lat. fol. 391, s. XVI, f. 173v



28. Ercole Bottrigari, *Mathematicae operationes omnes quae in Magnae Ptolemaei compositionis astronomicae libris XIII continentur* (C.1.31), autograph, 1560
Bologna, BU, 326-II (213), f. 3v

* PTOLEMAICÆ TRADITIONES, EX SINGVLIS MAGNÆ CONSTRVCTIONIS LIBRIS A.

EX PRIMO

SPECVLATIVA PARS PHILOSOPHIÆ
Cuius In tria ḡna diuidat Sm Arist
Naturalē ꝫ Math ac theologicum.
Cuius Theologia sit sup̄ facultatē hu-
manā, & Imperceptibilis. Physica uo, pp
authorū discrepātia & materię fluxam
Incertā; Cōmendat Mathra & prīpue Astro-
nomia pp certā demōstrationis & subiecti
nobilitatem.
Cęli figura ee Sphęrica. & motū ei circulare.
Hoc enim triplici syllogismo Cōclusit, scilicet
experientia, Consultatione, ac ratione.
Terram esse rotundam. Rotūditas Sm longitudinē
ex ortu & occasu stellaꝝ, & ex Eclipsi Lunę; & ꝫ
& ꝫ Intervalla tēporū ꝓportionalia sunt Interstitiis locorū. Rotūditas aut ab austro ad borēam
ex apparitionibꝫ ꝓpriis stellaꝝ & ex altitudinibꝫ
eaꝝ meridianis. quippe quaꝝ mensura ꝓportionalia sunt latitudinibꝫ climatū. Item aquę
rotūditas ex apparitione superficiei sc̄opuloꝝ
arcuū atq; insulaꝝ.
Terraꝫ In medio mundi situā esse. Secus enim
nec semicirculos ex circulis maximis, nec æqui
sphęrium cernerem. nec ęquinoctia, nec mensuras
diei & noctis, nec Eclipsium Lunarium ratio probat.
Item ex ꝓpendiculis, & ex eclipsibꝫ dictis Con-
cluditur terram esse In duabꝫ sex diametris mundi,
necessario sequitur & stare In cēlo.

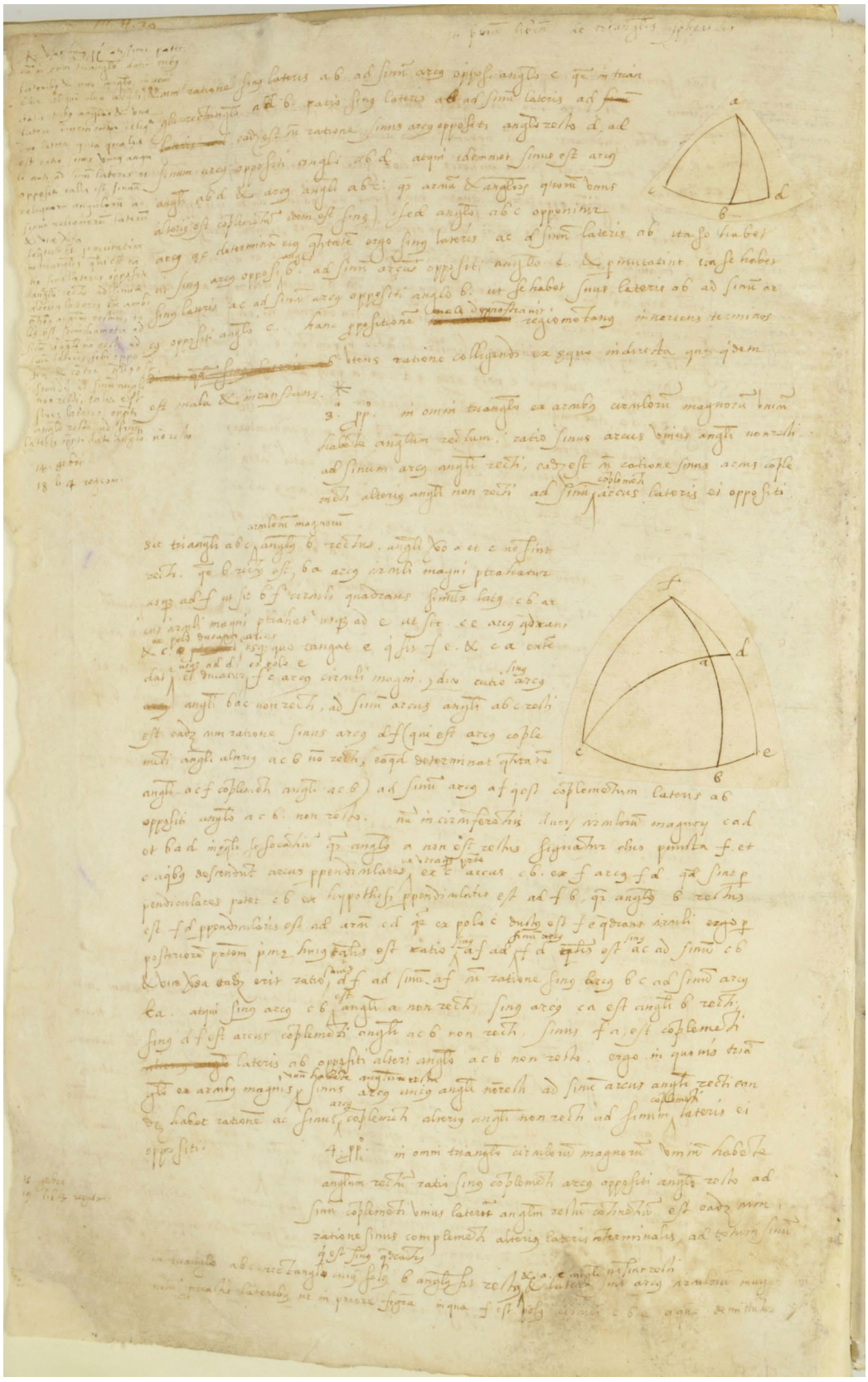
Ptolemæus. 2

Cū ptractarerimus in primo syntaxeos libro ea omnia quæ p̄mittēda
singulatim fuerūt de totius vniuersi affectione, et quatenus
in recta sphæra ostēsa fuerint, ea quæ p̄posuimus de rectis
tonabimus deinceps præscriptas in obliqua sphæra accidentias
modo, quatenus fieri potest, facillimo p̄sequi, et indagare. Et sit quidē
quod in vniuersū præmittendū est, sitne habet: quod cū terra
in quatuor diuidat quadrātes p̄ plagam æquinoctialem, et omnis
circulus p̄ polos eius discretos, orbis à nobis habitati ma-
ximum vno borealium quadrātē p̄mè ēo p̄hendit. id aut
ita cognoscitur maximè, in latitudine quidē. 1. trāsitu à
meridie in septentrionem facto, quod obiq; umbræ meridianæ
Gnomonū in æquinoctijs flectuntur in borea, nec congruā ad
meridiē. in latitudine verò longitudine vero, 1. trāsitu ab occidē
in occidentem, quod eadē stellæ maximè lunares eode ēo spectato modo
ab ijs q̄ locos simile occidentales terræ meis temporibus habitatæ, et q
maximè etiā occidentales occupat notatē no antecedāt, aut sequantur plus
12 horis æquinoctialibus. ipse etenim terræ quadras in longitudine
12 horarū interuallū ēo plectitur, quod scilicet ab vno æquinoctiali se-
micirculo terminetur.

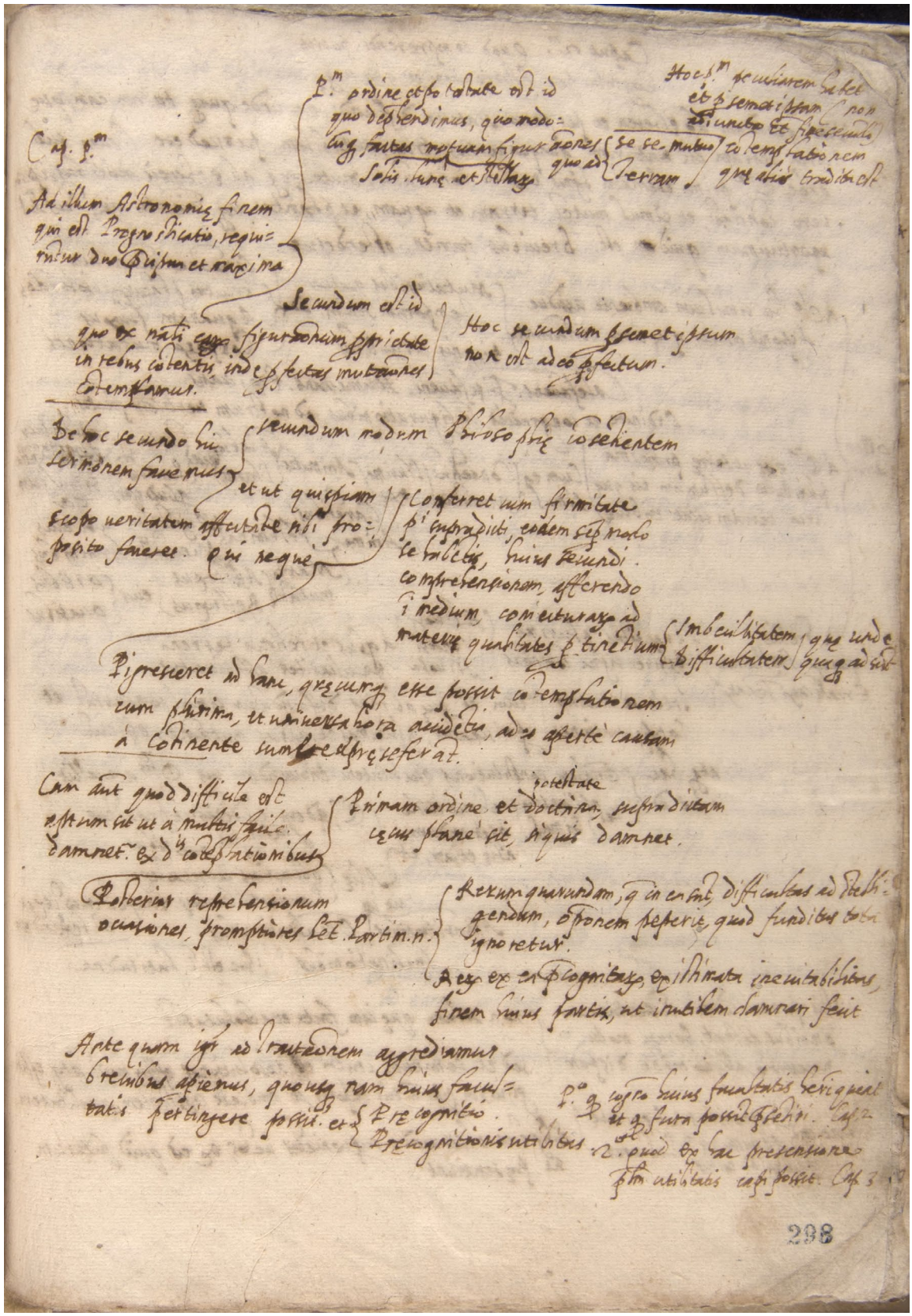
Theon.

Cū ptractauerit P tolemæus in 1° syntaxeos ea quæ de partib.
vniuersi omnibus esset p̄mittēda. 1. quod eadē sit sphæricū, et mo-
uearur sphæricè, quodq; duplices sint duæ primorū motuū in cælo
et de terra, quod ipsa sphæra sit ad sensū secundū vniuersas partes
sūpta, et medium ponatur totius rōne p̄p̄ quietē
inditionē, puncti vicē et rationē habens ad interuallū, quod ad
sphæram ipsa fixarū p̄tēditur: atq; in negotio particulari disseruerit
de quantitate trium circulorū inter tropicos in maximo circulo p̄
polos sphæræ descripto acceptæ, et quod eius semissis æqualis
videlicet trium circulorū inter duos polos æquinoctialis et zodiaci
complectitur inclinationē, aut obliquationē, quā facit zodiacus ad
æquinoctialē, quatenus absunt et tropici ab vtraq; æquinoctialis parte,
atq; etiā de ostensionalibus observationē, et particularē declinationum
demonstrationē, atq; etiā de coaptationibus segmentorū zodiaci et
æquinoctialis circuli, 1. vnaquæq; ἐξαπορεία zodiaci à rōi ipsius
et æquinoctialis sectione cū quot temporibus æquinoctialis ascendit
supra horizontē in recta sphæra, quæ sunt tempora in quibus habitatiæ
eārū ipsāq; zodiaci segmentis rectū medium. 1. meridianum p̄transeunt;
deinceps in hoc secundo libro, quemadmodum et, omnibus methodo quæ dicta
facillima de p̄dictis tribus et affectionibus quæ in quamq; sphæram
obliquitate totius p̄cipuis diuersæ instituit: quæ aut sunt
principalissimæ p̄dictarū, et quibus sermonē facturus est, ipse paulò
post ostendit. declinationē verò sphæræ appellat, in quibus regionibus

30. Henry Savile, copy of Theon's commentary on the *Almagest* (C.1.30.3), autograph, 1568
Oxford, BL, Savile 27, f. 2r



31. Jerónimo Muñoz, copy of Theon's commentary on the *Almagest* (C.1.30.5), autograph, 1582
Naples, BN, VIII C 33, f. 21r



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32. Giulio Angeli da Barga, *Tabulata expositio in Quadripartitum* (C.2.35), probable autograph, *c.* 1583
Pisa, BU, 232, f. 298r