

INTRODUCTION

THE TRANSMISSION OF THE LATIN TEXT OF *On the Great Conjunctions*

The Latin translation of *The Book of Religions and Dynasties* was the most important book on historical astrology in the Middle Ages and early modern period. Since the time of its first printing in 1489 it has generally been known as *De magnis coniunctionibus*, and it is as *On the Great Conjunctions* that it will be referred to in this volume.¹ Abū Maʿṣār's work came to the notice of European scholars for the first time in the course of the second quarter of the twelfth century, apparently alongside other works of the same author, the most important of which was the *Great Introduction to Astrology*. Two centres of interest can be identified. One was in the regions adjacent to the former Islamic kingdom of Zaragoza, renowned for its scientific culture, where Hermann of Carinthia, Robert of Ketton, Hugo of Santalla, and Abraham ibn Ezra were working. Hermann translated the *Great Introduction to Astrology* in 1140, and, in his original cosmology, the *De essentiis* (completed at Béziers in 1143), after referring to Abū Maʿṣār's *Book of the Thousands*,² and *On the Revolution of the Nativities*,³ he summarises doctrine from the same author's 'Alkirenet' (i.e. *al-Qirānāt* = conjunctions):⁴

¹Note that the references to the text of *On the Great Conjunctions* are either (1) to the number of the Part (in roman numerals) followed without a comma by the line number of the Arabic text (in arabic numerals, indicated in the margin of the Latin text), or (2) to the Part number, followed, after a comma, by the number of the chapter, and, in square brackets, the section.

²See Burnett, 'The legend of the three Hermes and Abū Maʿṣār's *Kitāb al-Ulūf* in the Latin Middle Ages', *Journal of the Warburg and Courtauld Institutes*, 39, 1976, pp. 231–4.

³Under the title 'Annales'; Hermann refers the reader to his own translation of the work, which has not been identified.

⁴Hermann of Carinthia, *De essentiis*, ed. C. Burnett, Leiden, 1982, p. 166: '... in pronosticis ... in varia mundi accidentia per diversas terrarum partes, ac preterea quantum ex Alkirenet accedit, per eadem item genera tripartitis, quorum pars necessaria quadripertita: prima quidem pars annorum .xx., secunda .xxx., tertia .ccxl., quarta .cmlx.; celebris vero bipertita: Solis cum Ariete, Solis cum Luna; tertii generis partes Ptholomeus et Messehella usque ad .cl. numerant. Ex omnibus igitur hinstauratur multiplex pronosticorum speculatio per diversa loca in varios temporum

<Different time-periods can also be found> in general astrology in respect to the various mundane events which happen in different parts of the world. Moreover, as can be deduced from (his) *al-Qirānāt*, they are divided between the same genera,⁵ of which the necessary part is fourfold: the first part of 20 years, the second of 30, the third of 240, the fourth of 960;⁶ the well-known is of two parts, the Sun with Aries and the Sun with the Moon; whilst Ptolemy and Māsā'allāh list the parts of the third kind as being as many as 150.⁷ From all these the many-branched speculation of general astrology begins, applying different movements of time to different places. Hence astrologers measure the various events through the centuries, the different states of mankind, and the different world-rulerships. For they write that the rule of the Jews is under Saturn, the dominion of the Arabs under Venus and Mars, and the Roman Empire under the Sun and Jupiter.⁸ They place under the rule of the Arabs all the people of Muḥammad, and under the Roman Empire, for the most part, all those subject to the Christian faith, since sometimes the Arabic language calls them as much *Romani* as *Nazareni*.⁹

The precise source of Hermann's information is obscured by the fact that he considerably changes the material to fit it to his own system. Moreover, one cannot be sure whether, under the title *al-Qirānāt*, Hermann is referring to *On the Great Conjunctions* itself, or to one of its cognate works,¹⁰ but there is no doubt that Abū Ma'sar is Hermann's authority for historical astrology.¹¹

motus. Hinc etiam astrologi varias seculorum casus, hinc diversos humani generis status, hinc etiam diversa mundi imperia metiuntur. Sic enim regnum Iudeorum sub Saturno scribunt, Arabum dominium sub Venere et Marte, Romanum imperium sub Sole et Iove (sub Arabum regno statuentes omnem Machumete gentem, sub Romano imperio plerumque omnes Christiane fidei subiectos, eos siquidem omnes nonnumquam Arabica lingua nichilominus Romanos quam Nazarenos vocat).

⁵Hermann had previously described these genera of time-periods as (1) those defined by the Sun and the Moon (the year, month and day; the 'well-known'), (2) those defined by the five planets (the 'probable'), and (3) the great cycles such as those of the thousands (the 'necessary').

⁶The periods are those of *On the Great Conjunctions*, I, 1 [12]–[15], but in reverse order.

⁷This is probably a mistake for '120', which was regarded as the number of possible conjunctions of the planets; see John of Seville, *Quadripartitum*, I (MS Vienna, Österreichische Nationalbibliothek, 2436, f. 211r): '(in general astrology) considerandum est etiam coniunctiones planetarum quarum 120 sunt genera'; compare Pseudo-Ptolemy, *Centiloquium*, 49.

⁸Compare *On the Great Conjunctions*, I, 4 [4].

⁹Abū Ma'sar usually uses the term *rūmī*, but twice uses the term *naṣrānī*, and it is significant that the Latin Glossator states that 'whenever the author refers to Romans, he means Christians'; gloss to II 783.

¹⁰See above, volume I, pp. xv–xx.

¹¹Abū Ma'sar was also known to Hermann's contemporary, and possibly colleague,

Shortly before Hermann completed his translation of Abū Maʿṣār's *Great Introduction*, John of Seville completed another translation of the same work (1133). In several manuscripts his translation is accompanied by the text of *On the Great Conjunctions* edited in this volume.¹² Although none of the extant manuscripts names the translator of *On the Great Conjunctions*, there is little doubt that it belongs to the same milieu as that of the *Great Introduction*. That this milieu was Toledo is suggested by the fact that one of the translator's glosses refers to a term used specifically 'in the Toledan dialect'.¹³ That the translation belongs to the context of John of Seville's translations can be deduced from the fact that the only works referred to directly in the translator's glosses are the passage attributed to Kankah the Indian appended to 'Umar ibn al-Farruḥān aṭ-Ṭabarī's *Book of Nativities*, and al-Qabīṣī's *Introduction* (k. *al-Mudḥal*), both works firmly attributed to 'John of Seville and Limia'.¹⁴ Moreover, John of Seville summarises the doctrine of conjunctionalism in the first book of his *Quadripartitum* (1142).¹⁵ John

Abraham ibn Ezra, who refers to the '120' conjunctions of the planets, and describes the great, middle and small conjunctions of Saturn and Jupiter, but is critical of Abū Maʿṣār, in his *Tractatus de revolutionibus*, printed in *Abrahe Avenaris Iudei Astrologi peritissimi in re iudiciali opera* ..., Venice, 1507, f. lxxvii^r–lxxviii^v; the passage begins: 'Si tu inveneris librum Alb. de coniunctionibus planetarum, non acquiescas ei nec audias ipsum; sustentatus enim est super coniunctiones planetarum secundum medium cursum vel equalem.'

¹²Richard Lemay has given a list of the manuscripts containing both works in his edition of the *Great Introduction* (Abū Maʿṣār, *Liber introductorii maioris ad scientiam judiciorum astrorum*, 9 vols, Naples, 1995–6), IV, pp. 4–5. Leipzig, Univ.-Bibl. 1467 should not be included in this list; see below, p. 348–51.

¹³See below, p. 328.

¹⁴For these attributions, and the possible significance of the two toponyms in John's name, see Burnett, '“Magister Iohannes Hispalensis et Limiensis” and Qusṭā ibn Lūqā's *De differentia spiritus et animae*: a Portuguese contribution to the Arts curriculum?' *Mediaevalia. Textos e estudos*, 7–8 (Porto, 1995), pp. 221–67. It is unlikely that the addition of 'and Limia' serves to distinguish this John from another translator of astrological texts called John of Seville.

¹⁵MS Vienna, Österreichische Nationalbibliothek, 2436, f. 211r: 'Prima <pars astrologie> est generalis, ut de gentibus, civitatibus, aeris mutationibus, fame et mortalitate ... in quarum prima considerandum quod signum, quem planetam gentes habeant in partibus terre, et expertum est signum Arietis et Iovem dominium habere in terra Bacadach et Babil et Erach, in terra Christianorum Libram et Saturnum, Scorpium et Venerem in terra Arabum, Capricornum et Mercurium Indorum, Leonem et Martem Turchorum, Aquarium et Solem in terra Babilonie, Virginem et Lunam in Hyspania (compare *On the Great Conjunctions*, II, 8 [4]). ... Coniunctio maior Saturni et Iovis in capite Arietis, que sunt in fine .960. annorum: hec demonstrat permutationem gentium. Mediocris vero coniunctio Saturni et Iovis in signo terreo, et hec fit infra .240. annos ante vel post, eorum quoque coniunctio in signo aereo et aquatico totidem annis: hec significat regum mutationes. Parva est Saturni et Iovis in signis eiusdem nature, que fit in .20. annis, et hec significat in civitatibus.' The twelfth-century MS Chartres, Bibliothèque municipale, 213, destroyed in

of Seville's association with Toledo is known from his dedication of the translation of Qusṭā bn Lūqā's *On the Difference between the Spirit and the Soul* to Raymond, archbishop of Toledo from 1126 to 1151.

There is, however, a problem in attributing the translation of *On the Great Conjunctions* directly to John of Seville; namely, the fact that the hands of at least two scholars skilled in Arabic can be discerned in the variant forms of the text. One scholar was responsible for a version with sparse annotation which has survived complete in only one manuscript: this is referred to as 'Version v'; another scholar was responsible for a version which became the canonical text of *On the Great Conjunctions*: Version c. It is this second scholar who added the extensive gloss, and whom I refer to as the 'Latin Glossator'. That he also regarded himself as a translator is indicated by the gloss added to the first of the horoscopic charts in Part VIII, in which he writes 'I did not translate <the values for the planets> because they were all corrupt; nor did I put anything in their place.'¹⁶ It is only this second scholar who refers to the Toledan dialect, and it is noticeable that his terminology is considerably more influenced by the Spanish vernacular than that of the first scholar.¹⁷

The precise relationship between these two scholars is difficult to determine. The Latin Glossator has used a different Arabic manuscript from that used by the author of Version v, but we are not dealing with a straightforward revision. Often, in fact, one gets the impression that Versions v and c are independent revisions, or 'editions', of an earlier translation, in which, perhaps, alternate possibilities for translating Arabic words, and even variants for whole phrases, had been left in the

the second World War, once included, alongside a copy of John of Seville's translation of al-Qabīṣī's *Introduction*, a long work 'de planetarum coniunctione' beginning 'Si Saturnus et Iupiter ...' (Burnett, 'The contents and affiliation of the scientific manuscripts written at, or brought to, Chartres in the time of John of Salisbury', in *The World of John of Salisbury*, ed. M. Wilks, Oxford, pp. 127-60, see pp. 135 and 140; our only information on the manuscript is what is provided by the cataloguers, and Haskins' brief allusion to it in his *Studies in the History of Mediaeval Science*, Cambridge, Ma., 1927, p. 90). Since notes for the years 1135 to 1141 have been added to the text, if the work is dependent on *On the Great Conjunctions*, the latter text must have been translated before these dates. However, the only name mentioned by the cataloguers in association with this text is 'Aben-Eyzor', which is more likely to be a corruption of Ibn Biṣr, the ninth-century Jewish astrologer, than of Ibn al-Bāzīyār, to whom the manuscripts of the Eastern tradition of *On the Great Conjunctions* attribute the text; see volume I, pp. xx-xxi.

¹⁶ '... quia corrupta erant omnia, ideo non transtuli, nec aliquid ibi posui'; see p. 332 below.

¹⁷ Among the Castilian words he uses are 'arlotus', 'coardia', 'ganado' and 'referamentum', as well as several Arabic words which had become assimilated into the Romance vernacular; see Glossary below.

text. It is likely that the relationship between the two versions of *On the Great Conjunctions* is the same as that between the two versions of the *Great Introduction*, which Richard Lemay has attributed to John of Seville and Gerard of Cremona respectively, but the evidence for this will be explored elsewhere.¹⁸

The two versions of *On the Great Conjunctions* are transmitted in the following manuscripts (For each manuscript the date and title are indicated):

Version v:

The title in MSS M and V is: 'Hic est liber in quo continentur plura collectiva de significationibus individuorum superiorum', to which V adds 'super accidentia que efficiuntur in mundo effectus et corruptionis de presentia scilicet eorum respectu ascendentium inceptionum coniunctionalium et aliorum'.

V = Vienna, Österreichische Nationalbibliothek, 5478, s. xiii^{med}, ff. 103r–78r.

M = Munich, Bayerische Staatsbibliothek, 125, s. xv, ff. 223r–266v; additional title: 'Albumazar de effectibus magnarum coniunctionum necnon eclipsium ipsorum luminarium' ('Albumazar de magnis coniunctionibus' in top margin). The copy of Part I in this MS belongs to the v tradition.

z = Glosses in Vatican City, Biblioteca apostolica Vaticana, lat. 5713, s. xiv.

Version c:

The title in all these manuscripts (with minor variants) is: 'Hic est liber in summa de significationibus individuorum superiorum super accidentia que efficiuntur in mundo generationis et corruptionis de presentia eorum respectu ascendentium inceptionum coniunctionalium et aliorum'. Where an additional title is added it is mentioned.

A = Arras, Bibliothèque municipale 47 (844), s. xiv, ff. 77r–118r.

B = Oxford, Bodleian Library, Digby 114, s. xiv, ff. 53r–103v (incomplete); running head: 'de coniunctionibus magnis'.

C = Cambrai, Bibliothèque municipale 168 (163), s. xiv, ff. 26r–100r.

E = Erfurt, Wissenschaftliche Bibliothek der Stadt, Amplon. Q372, s. xiv^{ex}, ff. 1–42v (incomplete), 'Liber m. coni.'

¹⁸A detailed study of the differences between the two versions will appear in my 'The strategy of revision in the Arabic-Latin translations from Toledo', in *Translators at Work: their Methods and Manuscripts*, ed. J. Hamesse (proceedings of a colloquium held at Erice, Sicily, 30 Sept.–6 Oct. 1999).

K = Bernkastel-Kues, Hospitalsbibliothek, 208, s. xivⁱⁿ, ff. 75r–118v (412r–85v).

L = Florence, Laurenziana, Ashburnham 127 (201/133), s. xv, ff. 4rff.

M = Munich, Bayerische Staatsbibliothek 125, s. xv, ff. 223r–266v (Parts II–VIII of this copy belong to Version C).

O = Oxford, Merton College, 281, s. xiv^{ex}, ff. 185r–214v.

P = Paris, Bibliothèque nationale de France, lat. 16204, s. xiii^{med}, pp. 183–302; running head ‘Album. de con.’

Q = Paris, Bibliothèque nationale de France, lat. 7316, s. xv, ff. 85–132v; ‘Liber Albumasar de coniunctionibus’.

R = Paris, Bibliothèque nationale de France, lat. 7332, s. xv, ff. 16r–103r.

S = London, British Library, Harley 3631, s. xii or xiii, ff. 58r–100r.

T = Paris, Bibliothèque nationale de France, lat. 16205, ff. 1r–70v (breaks off in VIII 103).

U = Vatican City, Biblioteca Apostolica Vaticana, Reg. lat. 1285, s. xiii, ff. 43r–99v.

W = Vienna, Österreichische Nationalbibliothek, 5392, 1475 A.D., ff. 348r–413r.

X = Vienna, Österreichische Nationalbibliothek, 2436, 1465 A.D., ff. 144r–198r; ‘Liber magnarum coniunctionum’.

Y = Vienna, Österreichische Nationalbibliothek, 5463, s. xv, ff. 93r–146r; ‘Liber revolutionum albumasar alias vero de magnis coniunctionibus dicitur’.

Z = Vatican City, Biblioteca apostolica Vaticana, lat. 5713, 1338 A.D., ff. 1r–52r.

pr. = printed editions: Augsburg, 1489 and Venice, 1515. Title page: ‘Albumasar de magnis conjunctionibus, annorum revolutionibus ac eorum profectionibus, octo continens tractatus’.

Version v

The sole manuscript to present Version v in its entirety and, apparently, without any contamination from Version C is MS Vienna, Österreichische Nationalbibliothek, 5478 (= V). This vellum manuscript consists of three items: *Great Introduction*, in the ‘revised’ form (f. 1–99), *On the Great Conjunctions* (ff. 103r–78r) and some tables from the *Toledan Tables* (ff. 179r–88v).¹⁹ A large section of the *Great Introduction* has been recopied onto paper, but the copyist appears to have reproduced faithfully the original text. If this is so, the colophon indicates that the

¹⁹This manuscript is listed as containing ‘planetary motion tables only’ on p. 160 of G. Toomer, ‘A survey of the Toledan Tables’, *Osiris*, 15, 1968, pp. 1–174.

original copy was made in Toledo in 1248, in the time of King Ferdinand III:

Perfectus est liber Introductorii maioris in magisterio scientie astrorum, translatus a Iohanne Yspalensi, Deo gratias. Liber iste vocatur Abumazer et fuit scriptus Toleti atque perfectus, regnante tunc temporis Ferdinando, anno domini .m^o.cc.xviii., vicesimo primo die mensis Octobris, die Mercurii, era Cesaris .m^o.cc.lxxxvi, era Arabum .dcxlv. tertio die mensis Raiab, era Alexandri .mdlx., Sol in Scorpione cum motu octavi circuli quinque gradus et .x. minuta, Luna in Sagitt. .xi. gr. et .liiii. min., Saturno in Scorp. .x. gr. et .xl. min., Iove in Sagitt. .xv. gr. .xiii. min., Marte in Libra .xxvii. gr. et .ix. min., Venere in Libra .xvi. gr. et .xxv. min., Mercurio in Scorp. .xxii. gr. et .xii. min., Capite in Sagitt. .xii. gr. et .xlii. min. Explicit sub auxilio Ihesu Christi.

Richard Lemay has convincingly argued that, in the case of the *annus domini*, the copyist mistook an 'x' for a similar-looking compendium for 'xl' that was used in Spain at the time, giving '1248'. This would agree with the Spanish era of 1286, and the A.H. of 646 (which began on 26 April, 1246), and it falls within the reign of Ferdinand III, king of Castile (and Leon) from 1217 until his death in 1252. The positions of the planets are compatible with the date of 21 October 1248.

The only indication of the time of writing in V's copy of *On the Great Conjunctions* is a reference to the handing over of land to the Emperor by the people of Brescia in a gloss to III 55, which probably refers to the consequences of Frederick II's siege of Brescia in 1238, in which 'milites Yspanie' took part.²⁰

The following hands can be discerned in V: V¹ has written all the text of the *Great Introduction* and *On the Great Conjunctions* except ff. 115–28 and the pages replaced with paper copies. He has also written most of the glosses, in a smaller hand, and guides for rubrication in the *Great Introduction*; the rubrication appears to be in his own hand. V² writes ff. 115–28. V³ inserts corrections, writes the longer glosses (see pp. 320–37 below), the occasional shorter glosses (e.g. 'romanorum' for 'grecorum' in IV 35), and the summaries of the subject matter in Part IV. The tables at the end of the manuscript are in his hand. These three scribes were apparently working on this manuscript at the same time.

At least three later scholars added a few annotations and the occasional correction to the manuscript: V⁴ adds notes on the subject matter on ff. 103v–104r. V⁵ adds a note on f. 104r on Abū Ma'shar's six elements

²⁰F. Giunta, 'Federico II e Ferdinando III di Castiglia', in *Studies in Italian Medieval History presented to Miss E. M. Jamison*, eds P. Grierson and J. Ward Perkins, Papers of the British School at Rome 24, 1956, pp. 137–41 (I owe this reference to Peter Linehan).

from which predictions are made (which he calls the six 'principia'), and continues to write guides to the subject matter throughout the work. On one occasion he makes a personal comment (f. 130r): 'Vidi unum astrologum qui ascendens permutationis a coniunctione . . . revolutionis accepit pro ascendente revolubilis anni'. On f. 166r another hand writes a mark of ownership: 'Iohannes Gewolfi publicus notarius'.

The text of V is clearly written and not heavily abbreviated. It is not, however, free from mistakes, and, in using this copy as the base text, the following tendencies of the scribes have been taken into account:

the confusion of 'a' and 'o' (e.g. 'nocturno' for 'nocturna' in II 365, 'alio' for 'alia' in II 392, 'eorum' for 'earum' in II 180 and II 219, 'occidere' for 'accidere' in II 857, 'eos' for 'eas' in III 175); of 'is' and 'es', as in 'arboris' for 'arbores' in II 802, and 'regionis' for 'regiones' in II 865; of 'c' and 'd', as in 'ac' for 'ad' in VI 508, 'deprecari' for 'depredari' in V 943; of final 's' and 'x', as in 'senex' for 'senes' in VII 139; of the paragraph sign and the abbreviation for 'vel' (I 88); of the abbreviation for 'etiam' and that for 'erit' (II 463); of the symbol for '5' and 'u' (resulting in the realization of the abbreviation for 'quinti' as 'ubi' in II 694); of the symbols for '.2.', '.3.' and 'et' (I 107, 118); of the ampersand and the abbreviation for 'quia' (I 234, 235, 269, 272); of the abbreviations for 'signum' and 'significat' (e.g. writing 'significat' for 'signum' in II 393); and the omission of 'et' in a sequence. V always uses the spelling 'Babillonia' and 'peccunia', but writes a single 'm' in 'aminiculo' in II 81. He usually writes 'hiis' for 'his' and occasionally 'is' for 'eis' (II 661). His use of 'h' is inconsistent; it is added regularly to the parts of 'pro(h)icere', and occasionally to '(h)arabum', but it is also sometimes omitted, as in 'as' for 'has' in I 131. V writes 'mendatii' (II 789), 'audatiam' (II 792), 'morditationem', 'fortius', and 'aspiti-' (from 'aspicere'), but also 'precii', 'gencium' and 'velocius'. In the edition 'ti' or 'ci' are adopted according to the norms of Classical Latin. In II 229 he writes 'exigens' for 'exiens', but in II 858 'proieniei' for 'progeniei'.

Another witness to Version v is MS Munich, Bayerische Staatsbibliothek, 125 (= M). This copy of *On the Great Conjunctions* is part of a large compendium of astrological texts, all written by the same fifteenth-century hand. The scribe shows signs of being in a hurry, and he omits the chapter headings at the beginning of each of the Parts of *On the Great Conjunctions*. Probably at an earlier stage in the transmission of M's text a scribe had embarked on copying Abū Ma'shar's work from a manuscript close to Version v, but, for some unexplained reason, he

switched to a manuscript of Version C after copying Part I. M is full of mistakes resulting from slovenly copying. Nevertheless its copy of Part I does appear to preserve some authentic readings which are no longer in V, as well as readings which suggest a transitional stage between Version V and Version C. Its readings have, therefore, been fully recorded (except when they are obviously spelling or copying errors) in the apparatus criticus to Part I.

In addition, M preserves some original comments. The inclusion of a table of *fordārs* which terminates in 1364 A.D. may be an indication of the approximate date of these comments.²¹ These comments include: f. 224va (to I 209–14) ‘Nota Albumazar est sibimet contrarius hic et in tractatu quarto differentia 12 in tempore quod est inter diluvium et eram Arabum et est contrarietas bene in 360 annis’;²² f. 225ra (in the vicinity of Part I, 1 [34]) ‘ab orbe ad Christum 3381 anni perfecti, a diluvio ad Christum 3102 anni perfecti’; f. 227r (to II 48) ‘almusteli, i.e. significator essentialis et naturalis dominus regni’; f. 227v (adjacent to II, 3) ‘Nota: coniunctio sub qua incepit regnum Bohemi<e> fuit in Capricorno anno Christi 1047 et ascendens eius Gemini, sed annus primi regis fuit anno Christi 1086, et ascendens anni fuit Libra, profectio ab ascendente anni coniunctionis fuit Virgo, et hec signa erunt super reges eos significantia’;²³ f. 228r (adjacent to II, 4) ‘et facias de ascendente orbis ut invenias ascendens regni Romanorum, quia ipse est dominus indi (?) et est occultum. Et hoc expertus sum sepius et inveni quod ascendens hora intronizationis primi regis sic fuit. Expertus sum in electionibus regum Romanorum quod ascendens hora electionis eorum semper fuit ascendens anni mundi quando incepit vicissitudo eorum’;²⁴ f. 266v (to VIII 276) ‘cives aldearum, nigrorum, Eradie sive Erachie, idem sunt’. The table of *fordārs* and the presence of two notes relating to German and Bohemian history suggest a relation between MS M and MS E.

The third witness to Version V is the alternative readings added to MS Vatican City, Biblioteca apostolica Vaticana, lat. 5713.²⁵ The main text of this manuscript (MS Z) is an unremarkable copy of Version C, without the Gloss, which shows some relation to MSS PU.²⁶ However,

²¹The table comes immediately after the explicit, on f. 266v. Note that MS E gives the same table, but adds another cycle of *fordārs*, see p. xxvi below.

²²This note is occasioned by the fact that in M’s text 360 years have been added to the year-values; see the apparatus criticus *ad loc.*

²³The horoscopes for these dates appear in MS E, f. 45r.

²⁴The last sentence is also in MS E, f. 1r.

²⁵The contents of this manuscript are described by Lemay in *Great Introduction*, IV, pp. 133–6. The manuscript contains a collection of works by Abū Maʿṣar.

²⁶E.g. I 278: signi fortioris] significatoris UZ. In VIII 193, Z writes two versions of

a more current hand has annotated the manuscript. He has corrected obvious errors of the main text (e.g. 'significationum' for 'signorum' in I 33; 'summitatum' for 'unitatum' in I 55), and added summaries of the material and his own remarks, especially on terminology: e.g. f. 1v: 'nota quod in hoc libro continuatio idem est quod coniunctio'; f. 2r, 'nota quod ascensio intelligitur ascendens introitus Solis in Arietem et ascensio . . . preventionis Solis et Lune ante introitum Solis in Arietem'; f. 50v (to the horoscopes in Part VIII), 'nota hic tempus Albumazar secundum quod invenies eum in .6. tractatu sui *Introductorii* circa principium prime differentie qui fuit anno Christi .1338. perfecto septima die Iulii, erant tunc elapsi de annis Albumazar .490. anni, dies .110., secundum annos solares, etc.'; *ibid.* (to VIII 178), 'secundum quod ponitur in Alcabcicio, annus iste fuit primus annus Arabum'; f. 51r (to VIII 188: Gezdagird) 'qui fuit ultimus rex Persarum'; *ibid.* (to VIII 194: Alhigera) 'qui fuit primus rex Arabum et inventor secte eorum'. Above all, he adds readings from a source referred to as 'al.' or 'alias' (= z), which usually correspond to those of V.²⁷ That the manuscript was not V itself is proved by the fact that in I 93, z gives an alternative reading which is distinctive of V ('ascendentia' for Version C's 'ascensiones') where V has omitted some words; similarly in II 104 z gives 'necnon' in a phrase omitted by V. Unfortunately the glosses do not extend further than the first five chapters of Part II. However, the same annotator has copied the horoscope from II, 8 from the same source, and has added V's variant colophon. A full list²⁸ follows (a capital Z gives the reading in the text of the manuscript; it is to be assumed that all the following words and phrases are glosses and most are prefixed by 'al.' or 'alias'):

I 2 superiorum; 3 effectus; 9 coniunctionum; 14 quod est dominium anni; 14; que est directio gradus ascendentis; 22 in quibus collectivis; 29 notas; 33 significationum (signorum Z); 38 cuspidum; 40 vestigiorum; 41 effectus; 50 id est ligationis; 51 que est leges observationes; 60 que sunt quedam simulationes vel legum observationes; 60 regnorum; 61 ordinem (ordinemque V); 62 regna; 63 regnis; 63 vel mutationes; 64 dissimilitudo vel dissensio (dissimilitudo vel discessio V); 68 atque nexu (et nexu V); 70 eos scilicet qui principantur; 75 brevis scilicet temporis atque spatii; 76 trium superiorum divisionibus (divisionibus trium superiorum V); 79 nexus; 85 regnorum; 87 descriptionem; 87 necessitates (Z omits); 90 priori (Z omits); 91 igitur cum res quibus

the same phrase—'anni et .3. menses et .3. dies et .16. hore Persice et .x3 et 3 dies et .xvii. hore persice'—the second version, which Z subsequently crosses out, is found in PU.

²⁷It is probable that the same source provided the corrections.

²⁸For long notes shared by z and V see pp. 320–37 below.

significatur prescientia; 93 ascendentia; 141 .19. (.14. Z = C a.c.); 146 .34.; 147 .20.; 148 .12. (.13. Z = CP); 150 al. non habet (primum Z = c); 156 al. non habet ibi .30. (.32. Z; cf. .21. V, perhaps the exemplar of zV had .2.); .400. (ducenti ZV); 171 enumeratis .4. enumerat alia duo; 177 ascendentia, i.e. considerata sunt ipsa ascendentia; 179 vel regalia; 180 considerata est significatio; 188 almamar; 198 vel mutatione; 203 si deus voluerit; 225 regnum; 234 regnum; 235 regni; 255–6 fortitudine, significant malignitatem ipsarum specierum et vilitatem earum (Z omits); 258 fori indicii; 272 almamar; 276 ceteris; 278 signi fortioris (significatoris Z = UM); 282 ceciderit (cederit Z = SU); 289 i.e. quando apparebit eius significatio; 290 s. ipsum in quo fit coniunctio mutationis triplicitatis ad terrea (i.e. signum in quo mutatio coniunctionis triplicitatis ad triplicitatem V); 292 corruptio; 316 Venerem; 316–7 et si surrexerit in revolutione; 316 habuerit (habuit Z, V has 'habuerit' in the margin); 328 i.e. quod signa planetarum superiorum significant longius tempus quam inferiorum (V omits); 369 aspicias; 394 secunda; 397 i.e. que in quarto aspectu eius; 418–19 in hominibus sectarum regnorum fiant ex; 430 dubietas; 431 negationem et suspitionem in fide; 435 non leviter se alicui humilantes; 436 i.e. scandalizatores; 440 almamar; 444 alinthal; 445 veras ut cultura dei; 449 boves.

II 2 regni; 11 in qualitate quidditatis causarum eorum significantium super detrimenta eorum et diei in quo erit; 12 scientia qualitatis (qualitate scientie Z); 31 profectio anni; 33 s. profectio; 36 duo; 37 sedens; 37 homines; 38 homines; 44 milites; 44 servientes; 44 domum; 49 qui est (quam Z); 51 victoria; 51 removebitur; 56 anni annorum aut quarte quartarum; 58 mobilibus; 62 infortuna; 62 contentionem (dissensiones Z); 64 non (si Z); 65 observa igitur (cave ab Z); 66 significatrix; 70 super mutationem; 71 apud permutationem (perventionem V) anni cum directione ad locum coniunctionis; 84 necessaria (necessario V); 86 regni; 94 positionem; 99 minuto (inicio Z); 99; s. corporaliter; 104 necnon (in a phrase omitted by V); 107 regni; 119 proprie si fuerint positi in angulis; 125 tunc hoc (et hoc Z); 126 victoriam (= V gloss 'in alio, victoriam'); 136 parve; 148 longitudine; 149 explanatio etatum eorum; 150 positionis; 156 fiunt (sunt?) aut (vel V) duo gradus; 157 duo gradus; 163 non habet (occasus Z = c); 163 secundum quantitatem fortitudinis vel debilitatis; 174 separatur; 175 super; 178 duxoria (dextoria Z); 180 super; 186 in initio (= V; minuto c ed.); 188 super; 192 vite eorum; 194 vite eorum; 196 s. natorum (with the Latin Glossator); 198 rem; 199 talis qualis ipse in ea et si steteris; 200 et dignioris; 201 ligatum fuerit ascendens ligationis qua ligatur aliquis angulorum vicis regni; 211 quo; 213 vel impeditus; 215 malitiam finis eius; 218 et si fuerit fortuna coram eo cum infortuna post eum, significat destructionem

in fine suarum rerum et prosperitatem in initio earum; 220 amabit; 224 uno; 229 facilius; 238 et congregatio (et congregationis V); 238 aspexerit; 241 Saturnus; 244 positionum; 252 dispensans (dispendens Z); 252 i.e. cadens; 253 in eo quod oportet cum paucam inde quantitatem apud se habeat; 256 salvus (salus Z); 267 deridebunt; 274 Saturnus (with Latin Glossator); 277 mentis; 282 i.e. rex subvertet eos auferendo res eorum vel dignitates eorum et de hoc insurgunt; 291 haiz; 292 vel (before 'septimi'; aut V); 295 fortune; 300 planete; 300 scientia positionis earum est ut accipiantur in hora elevationis sue a Sole; 307 aromatica; 309 redituum; 316 Mercurius dominus significat (prophete Mercurius super quem fit maledictio domini signi Z); 318 significatrix eius Luna; 324 revolutionum (or '-nis').

VIII (colophon). Completus est liber coniunctionum ordinatio alb. iaphar filii machometi albahe (?) quod est gentis (or gentile) patrum cum laude dei et auxilio eius et maledictio domini super machometum et super socios eius.

Occasionally, awareness of the readings of Version v is evident in other manuscripts. The scribe or an annotator of MS Oxford, Bodleian Library, Digby 114 (= B) copied the horoscopes in Part VIII from a manuscript of the C tradition, with the accompanying grid for the values of the planets left empty, as in the other MSS of this tradition. But he attempted to fill in these spaces from a manuscript of the v tradition. The scribe of MS Paris, Bibliothèque nationale de France, 7316 (= Q), also occasionally mentions alternate readings ('in alio'), which correspond to those of Version v, as follows:

II 728–32 et dixerunt quod propterea repulsus et odium . . . et revolutio, secundum hanc figuram; II 756–7 in alio, ad [ad] Arabes eo quod Luna porrigebat Mercurio, qui est dominus domus partem Arabum significantis; II 783 in alio, Grecos; II 825 in alio, inter cives Nigredinis et Mesopotamos; II 972 in alio, super quem fit maledictio; VIII 160 in alio, figura secte pervenit; VIII 170 figura; VIII 175 .125.

The values in the horoscopic chart for Part II, chapter 8, which are given only in a sketchy way with rounded numbers, may also come from the Version v tradition. In MS Vienna, Österreichische Nationalbibliothek, cod. 5463, Version v's alternative phrase in the title—'in quo continentur plura collecta'—is added above 'in summa'.

Version C

The vast majority of the manuscripts and the Renaissance printed editions present Version C. This is characterised by (1) the accompaniment of a standard gloss (sometimes missing or imperfectly preserved in later manuscripts), (2) the absence of the horoscopic chart in II, 8, (3) the use of charts of a different Arabic tradition from that used by Version v in VIII, 2, and (4) the close attention paid to formal details in the Arabic manuscript: e.g. to III 15: 'hec interpositio est' which is taken up in the gloss to II 25: 'huc usque littera suspensiva est interpositionibus'.²⁹

The Toledan origin of this version has already been mentioned, and at least one MS of the version appears to have been annotated in Toledo: for, on f. 74ra of MS K, is the phrase 'super Tholetum equavi domos, non planetas'.³⁰

In three manuscripts—MSS CUY—*On the Great Conjunctions* is followed by a work which ends with an observation made in the city of Cremona on 23 March 1191. This is the anonymous *Liber erarum*, which, in that it discusses the different traditions in measuring the 'years of the world', is an appropriate sequel to Abū Mašār's work.³¹ MS C—Cambrai, Bibliothèque municipale, 168 (163)—probably belonged to Pierre d'Ailly, bishop of Cambrai, whose collection of manuscripts was bequeathed to the cathedral; his lively interest in historical astrology is well-documented, and has recently been the subject of a book.³² But the original scribe has perhaps let slip his place of operation by inadvertently writing 'Bononia' (= Bologna) on one occasion, instead of 'Babilonia'.³³ It has been noted before that the earliest manuscripts of the Toledan translations of Gerard of Cremona were written in Northern Italy,³⁴

²⁹Cf. the similar phrase in the Latin translation of Māšā'allāh, *De revolutione annorum mundi*, MS Madrid 10053, f. 133r: 'huc usque suspensa est littera'.

³⁰This is reported by Alois Krchňák in 'Die Herkunft der astronomischen Handschriften und Instrumente des Nikolaus von Kues', *Mitteilungen und Forschungsbeiträge der Cusanus-Gesellschaft*, 3, 1963, pp. 139–45.

³¹Incipit: 'Prima erarum est a creatione mundi...'; edited by Ioachim Heller as the *Scriptum cuiusdam Hebraei de eris seu intervallis regnorum et de diversis gentium annis ac mensibus*, in *De elementis et orbibus coelestibus, liber antiquus ac eruditus Messahalae*..., Nuremberg, 1549, Sig. Kiv^v–Miv^v. A second work on the same subject in the same volume, entitled *Scriptum cuiusdam Saraceni*, has been identified as the canons to the tables for Jaén of Ibn Mu'āḍ al-Ġayyānī: see Y. Dold-Samplonius and H. Hermelink in *Dictionary of Scientific Biography*, VII, New York, 1973, pp. 82–3.

³²L. Smoller, *History, Prophecy and the Stars: the Christian Astrology of Pierre d'Ailly, 1350–1420*, Princeton, 1994.

³³Last word in IV, 6 [2].

³⁴In addition to the well-known manuscript, Paris, BNF, lat. 9335, which may have been written before the end of the twelfth century (see R. Lorch, *Arabic Mathematical Sciences*, Aldershot, 1995, article II, p. 71), Pierluigi Pizzamiglio mentions

and one report states that his body and his books were returned to Cremona after his death.³⁵ Later in the thirteenth century Bartholomew of Parma, an astrologer teaching in Bologna, was able to quote from *On the Great Conjunctions* in the third book of his *Tractatus spere*.³⁶ Thus, after Toledo, Northern Italy may have been a centre from which Version C was diffused.

'Library' copies of Version C

The manuscripts that represent this Version most accurately are MSS Cambrai, Bibliothèque municipale, 168 (163) (= C), Vatican City, Biblioteca Apostolica Vaticana, Reg., lat. 1285 (= U), London, British Library, Harley 3631 (= S), and Paris, Bibliothèque nationale de France, 16204 (= P). All four manuscripts are elegantly written in two columns, with ample space in the margins left for the Gloss, which is always copied with the text. Moreover, few further annotations have been added: the manuscripts have the appearance of reference copies, which were meant to be deposited in some library.

In MS U *On the Great Conjunctions* is followed by the *Liber erarum* and further astrological and astronomical texts translated from Arabic in the twelfth century, all written in one hand and accompanied by a gloss which has been copied with them.³⁷ The Gloss is more complete in U than in any other manuscript, and has been carefully corrected.³⁸ The scribe's style is characterised by a tendency to run prepositions into the following words, as in II 676: 'ī nangulo' for 'in angulo', and II 308: 'hisimilia' for 'his similia'.

The most elegant, and apparently the oldest, of the four manuscripts is MS S, which consists only of the *Great Introduction* and *On the Great Conjunctions*, each written in a late twelfth or early thirteenth-century

Milan, Biblioteca Ambrosiana, T.100.sup.: 'Le traduzioni matematiche Gerardiane e la tradizione matematica Cremonese', in id., ed., *Gerardo da Cremona*, Annali della Biblioteca statale e libreria civica di Cremona, 41, 1990, pp. 85–112 (101)).

³⁵Franciscus Pipinus (d. 1316), reported by R. Lemay, 'Gerard of Cremona', *Dictionary of Scientific Biography*, ed. C. C. Gillispie, First Supplement, New York, 1978, pp. 173–92 (see p. 173).

³⁶*Tractatus spere*, Book 3, eds A. Tabilio and C. Burnett, in press.

³⁷On ff. 153–62 (end of manuscript) a different hand has added Hermann of Carinthia's translation of the *Planisphere* of Ptolemy, and it is interesting to note that the margins are now narrower, and there are no glosses. This manuscript would repay study, for assessing the ways in which Arabic works on the science of the stars were read.

³⁸Sometimes this correction takes the form of indicating words from the gloss which have wrongly been copied into the text: e.g. III, 1 [11]: 'ex maritis <et> generibus vel corruptionem (*supra* glosa) suis et destructionem esse dispositionem (*supra* glosa) earum.'

hand.³⁹ According to the colophon of the *Great Introduction* the text was written in April, 1171,⁴⁰ and the script of *On the Great Conjunctions* bears a strong resemblance to that of Paris, Bibliothèque nationale de France 9335. It is a straightforward, and careful, transcription of Version C. The scribe shows the influence of the Spanish or Italian vernacular in occasionally writing '-ond-' for '-und-', as in the gloss to III, 5 [2] 'verecondiam', and 'noncios' for 'nuntios' in VII, 9 [7].

In MS P *On the Great Conjunctions* has been included in a kind of *Opera omnia* of Abū Mašār's works.⁴¹ It is a carefully and elegantly produced copy, and it is very likely that it was commissioned by Richard of Fournival (10 October 1201–before 1260), whose interest in natural science and astrology is well-known.⁴² The scribe has a tendency to copy phrases twice, rather than to omit anything, and is tempted to substitute correct Latin phrases for what he perceives to be erroneous: e.g. in II 119 he changes 'tantiturnus' to 'tunc terminus'; in II 671 he changes a pair of alternate translations into a Latin phrase;⁴³ in II 420 he corrects '.630.' to '.360.' on the understanding that the numbers have been written in the wrong order (in fact, '.60.' is correct). MS P is closely related to, though not a direct descendant from, MS U,⁴⁴ with which it shares erroneous readings: e.g. II 282: 'videtur' for 'Iupiter' (a misreading of an ambiguous abbreviation); II 370 'annum' for 'omni'; II 492 'occidentalis' for 'orientalis'; II 749 a confusion of '7' with the tironian 'et'. But P also corrects errors which it shares with U: e.g. II 382 'se elevabuntur' UP a.c., 'se elevabunt' P p.c.; II 397 'reddeat' UP a.c., 'reddeat' P; II 488 quando UP a.c., quod P p.c.; II 523–4, 'conting-' U, 'conting-' P (twice). However, P adds errors of its own: it confuses

³⁹A third hand has started to copy out the *Flores* of Abū Mašār on f. 110, but stops after one folio. This may be the same hand as writes an isolated gloss to VIII, 1 [14]: 'ita in libro florum Abimasar'. For descriptions see H. Hallauer, 'Cod. Harl. 3631 und 3915' in *Mitteilungen und Forschungsbeiträge der Cusanus-Gesellschaft*, 10, 1973, pp. 58–99 and Lemay, *Great Introduction*, IV, pp. 118–32.

⁴⁰Lemay conjectures that this is the very copy of John of Seville's translation that Gerard of Cremona used for adding revisions and glosses.

⁴¹For a full account of the works presently in, and formerly in, MS P, see D. Pingree, 'The diffusion of Arabic magical texts in Western Europe', in *La diffusione delle scienze islamiche nel medio evo europeo*, ed. B. Scarcia Amoretti, Rome, 1987, pp. 37–102 (109–102). Another account is given in Lemay, *Great Introduction*, IV, pp. 6–26.

⁴²Richard of Fournival's knowledge of *On the Great Conjunctions* is clear from his use of the work in his *De vetula*: see *Pseudo-Ovidius de Vetula; Untersuchungen und Text*, ed. P. Klopsch, Leiden, 1967, book III, 540–75, on planets and religions (compare *On the Great Conjunctions*, I, 4 [4]), III, 595–610, on 'maxima', 'maior' and single conjunctions of Saturn and Jupiter (compare I, 1 [12]–[15]).

⁴³MS U gives 'sederit fuerit' where the two verbs are alternative translations for Arabic *halla*; P changes this to 'sederit cuius fuerit'.

⁴⁴P cannot be from U, because it has a phrase in II 968–9 that U lacks.

'eum' with 'cum' (II 260), and '.3.' and '.2.' (II 355 and 357).

Astrologers' copies of Version C

Given the size of the work, and the complications of drawing horoscopic charts and inserting a detailed gloss, it is perhaps not surprising that the most complete manuscripts give the appearance of being professionally copied, presumably at considerable expense. In contrast to these elegant copies of the work there are manuscripts which give signs of being the personal copies of practising astrologers; they are often copied without care for appearance, and are sometimes incomplete. The earliest of these is Bernkastel-Kues, Hospitalsbibliothek, 208 (= K), in which the text of Version C and the annotations of the Latin Glossator which comment on astrological points, have been copied.⁴⁵ But, over and above this, the scribe who copied the glosses added his own annotations. He recalculated the horoscope for Part II, chapter 8, which was missing in Version C, added further horoscopes, and applied the theories of Abū Mašār to the history of the Empire.⁴⁶ This intelligent annotator, who dates one annotation to 1298 (f. 84v), is unnamed. His handwriting resembles neither that of Alvaro of Toledo, with whom he was identified by Alois Krchňák,⁴⁷ nor that of Bartholomew of Parma.⁴⁸

The second such manuscript is Erfurt, Wissenschaftliche Bibliothek der Stadt, Amplon. Q372 (= E). In this case the astrologer has not copied the whole of *On the Great Conjunctions*, but begins with Part II, chapter 4,⁴⁹ and omits the whole of Part VI. The scribe has derived the horoscope for Part II, chapter 8 (f. 15v) from the same source as the scribe of K, and, like the annotator of K, he comments extensively on Abū Mašār's method of astrological history, and gives examples from the history of the Empire and from Bohemian history. He also gives several tables, including those of the cycles of the *ḥardārs* from 1289 to 1452, and of the conjunctions of Saturn and Jupiter from the year 0 (presumably being that of the conjunction indicating the Flood) to

⁴⁵Most of the purely philological annotations have been omitted.

⁴⁶This material will be published in full elsewhere; see also pp. 348–51 below.

⁴⁷A. Krchňák, 'Die Herkunft der astronomischen Handschriften', pp. 44–5; see also *Verzeichnis der Handschriften-Sammlung des Hospitals zu Cues*, ed. J. Marx, Trier, 1905, pp. 195–8.

⁴⁸If, that is, MS Rome, Biblioteca Vittorio Emanuele, Santa Croce, no. 228 is written in his hand as Ernesto Narducci surmised in 'I primi due libri del *Tractatus Sphaerae* di Bartolomeo da Parma, astronomo del secolo XIII', *Bullettino di bibliografia e di storia delle scienze matematiche e fisiche*, 17, 1884 (reprinted Rome, 1885), p. 10.

⁴⁹It is possible that earlier chapters once preceded this, since II, 4 commences at the beginning of the first folio of the manuscript.

4872.⁵⁰ As we have seen, two of his annotations are, in turn, echoed in MS M.

In a third manuscript, Oxford, Bodleian Library, Digby 114 (= B), the text of *On the Great Conjunctions* is again incomplete. It starts in Part II, chapter 5, but the topics of the first Part and the beginning of the second have been summarised on f. 103v. The astrologer-scribe has added other texts within the copy of *On the Great Conjunctions* (e.g. 'Saturnus in Ariete sub radiis ...' and a text on the distance in miles between the earth and the planets have been copied on ff. 61v–62r between the end of Part III and the beginning of Part IV). Moreover, he adds several comments to Abū Maʿšār's text and, on f. 58v, explains how to calculate the movement in accession and recession of the sphere on the feast of St Silvester (31 December) of the year 1388.

Two of the manuscripts in Vienna also have astrological notes. Vienna, Österreichische Nationalbibliothek, 2436 (= X) is a large composite manuscript of astrological texts, in which texts on weather forecasting (one branch of general astrology) are particularly prominent.⁵¹ While the usual Gloss is absent, there are several astrological notes. These include the note on f. 146r mentioning the current date '1465': 'Albumazar fuit in revolutione orbis magni .12. currentis (nota ista!), completa autem .11. et remanserunt de .12. corrente .350. anni. Ex calculatione exemplari elicitur quod Albumazar practicam hanc posuit anno Christi .929. completo (veram exprobatorem!), signum profectio- nis tempore Albumazar fuit Geminorum signum, dominus autem orbis fuit ipsa Venus, gradus autem divisionis fuit .20. gradus Piscis et divisor fuit ipse Mars (quia .20. gradus Piscis est primus gradus termini Martis). Tempore Albumazar usque annum Christi .1465. t(ur) (?) fluxerunt anni .33. (*sic*), hoc est trecenti triginta tres.' In place of the horoscope in II, chapter 8 two concentric circles have been drawn, and there are no horoscopes in Part VIII.

In Vienna, Österreichische Nationalbibliothek, 5463 (= Y), the scribe shows an astrological interest. For the Gloss has been copied in red ink, and is therefore differentiated from the notes unique to this manuscript, which are written in grey ink. These include the personal statement that 'ego multiplicavi tempus positum inter unam coniunctionem et aliam pro 50, et provenerunt 994 anni, 34 dies, 23 hore, 41 min., 5 sec., 23 tert., 20 quart. ...'⁵² However, these notes stop at the end of Part II. There are no horoscopes, and in place of the one for II, 8, there is a diagram

⁵⁰The material will be published with that of MS K.

⁵¹See Lemay, *Great Introduction*, IV, pp. 103–112, and G. Bos and C. Burnett, *Scientific Weather Forecasting in the Middle Ages: The Writings of al-Kindī* (in press).

⁵²The rest of the note is unreadable.

of concentric circles with the signs of the zodiac written in.

Only in one case is it possible to attach a name to a writer interested in astrology: i.e. that of MS Paris, Bibliothèque nationale de France, lat. 7316 (= Q), in which, as noted above, some variants from Version V were included. The text in this manuscript was copied by a certain 'Petrus Triboul,' who may also have added the annotations.⁵³

Codices deteriores

The manuscripts described in the previous section provide very interesting material on how historical astrology was applied in the late Middle Ages. The remaining manuscripts are those which do not appear to have been copied or annotated by scholars who were interested in, or knowledgeable about, the subject matter, and consequently give an unreliable text.

These include MS Arras, Bibliothèque municipale 47 (844) (= A). Since this manuscript has a full copy of the Gloss (but without any further notes) it may once have been a valuable manuscript. But its usefulness is reduced because of the loss of about 27 folios due to an early nineteenth-century vandal.⁵⁴ Another manuscript which includes the long notes as well as the shorter glosses is Florence, Laurenziana, Ashburnham 127 (= L). This manuscript, however, in spite of its elegant appearance, provides a very poor text. Oxford, Merton College, 281 (= O) is among the books bequeathed to the college by William Rede, Bishop of Chichester (d. 1385), who, in turn, was given the manuscript by Nicolas of Sandwich.⁵⁵ It is a handsomely produced folio volume consisting mainly of works of Aristotle and his commentators. The last part of the manuscript, however, which seems originally to have been separate from the rest, includes Abū Mašār's *On the Great Conjunctions*, followed by incomplete copies of Sahl ibn Bišr's *Iudicia* and Abū Mašār's *Great Introduction*. Very few glosses, and no horoscopes, have been included in the copy of *On the Great Conjunctions*, and a text on the mechanics of a pulley has inexplicably been inserted between Parts VI and VII (f. 210r). The copy is very poor.

The text of Paris, Bibliothèque nationale de France, 7332 (= R) is written in a fifteenth-century cursive hand. No glosses appear in the margins, but some have been incorporated into the text, as was to happen in the printed editions; e.g., in I 627: 'apparitio prophetarum et eo-

⁵³F. 132v: 'Completo est liber coniunctionum ex dictis Albumasar Japhar Mahometi Albalcha cum laude dei et eius auxilio Amen. Petrus Triboul'.

⁵⁴Lemay describes this loss in *Great Introduction*, IV, pp. 160-2.

⁵⁵F. M. Powicke, *The Medieval Books of Merton College*, Oxford, 1931, no. 566, and Lemay, *Great Introduction*, IV, pp. 159-60.

rum qui eleuantur ad hoc ut sint reges vel principes successoresque eorum (*gloss underlined*)'. Paris, Bibliothèque nationale de France, 16205 (= T) includes only a very few of the glosses. Vienna, Österreichische Nationalbibliothek, 5392 (= W) consists of two codices, of which the second contains only the *Great Introduction* and *On the Great Conjunctions*.⁵⁶ There are no glosses, but the Humanist scribe has written a list of chapter headings for the whole work, before copying out the text itself.

The printed versions

The text was printed twice in the Renaissance. The colophons of the editions are as follows:

1) Opus albumazaris de magnis coniunctionibus explicit feliciter, magistri Iohannis Angeli viri peritissimi diligenti correctione, Erhardique Ratdolt viri solertis eximia industria et mira imprimendi arte, qua nuper Venetiis, nunc Auguste Vindelicorum excellit nominatissimus, pridie Kal. Aprilis, 1489.

2) Impressum Venetiis, mandato et expensis Melchior. Sessa, per Jacobum Pentium de Leucho, anno domini 1515, pridie kal. Junii.

The Augsburg and Venice editions are virtually identical.⁵⁷ They both include the same set of woodblock prints depicting the planets and the signs of the zodiac. These illustrations help the reader to find his or her place in the book; they serve a function similar to that of the rubrication in the manuscripts. One casualty of the printing of *On the Great Conjunctions* was that no glosses could be added in the margins. The long notes were omitted altogether; however, several shorter glosses, largely concerned with philological points, were included in the text. To what extent this was the work of the first editor, Johann Engel, is unclear. Engel may have been responsible for the tacit tidying up of the text.⁵⁸

⁵⁶ See Lemay, *Great Introduction*, IV, pp. 137–8.

⁵⁷ The only difference I have noticed is in the last sentence of II, 7 [6], where the Venice printing has corrected a misprint to 'timetur etiam'.

⁵⁸ This included filling in omitted predictions, presumably by guesswork: e.g. in VI, 3 [6], where the prediction for Venus had been omitted, the phrase 'Et cum fuerit Venus transiens super eum, significat' is added in the middle of a set of predictions for the Sun. There is also some disturbance in order, since VI, 7 [5–6] come after [8], VI, 11 [5–6] come after [8], and VII, 12 [3–4] come after [6].