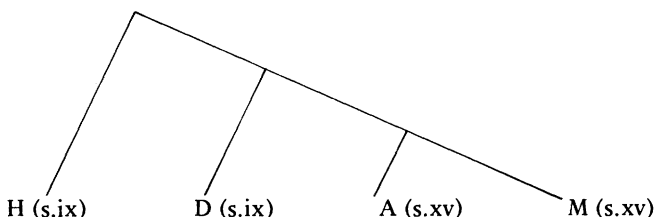


## SOME ASTRONOMICAL MANUSCRIPTS

### I

Editors know eleven manuscripts of Cicero's *Aratea*, seven eliminable.<sup>1</sup> These are the rest:



H, British Library Harl. 647, was written in Lorraine but crossed before AD 1000 to England, where it later belonged to St. Augustine's Canterbury;<sup>2</sup> Cicero's verses in minuscule occupy the foot of each page, and the rest is given over to the appropriate illustration, painted only at the extremities and filled out to the requisite shape with scholia from Hyginus in small capitals.<sup>3</sup> D, Dresden Dc 183, left France not before 1573;<sup>4</sup> illustrations and scholia occur only in a preceding work, the *scholia Sangermanensia*.<sup>5</sup> A, Ambros. D 52 inf., and M, Montpellier École de Médecine 452, derive from a *liber antiquissimus* discovered at Vercelli in 1442 by Cyriac of Ancona;<sup>6</sup> their text of Cicero has neither scholia nor illustrations, but Cyriac gives examples of both from the Vercellensis together with passages of Cicero, as follows:

Super Delphini figuram

*scholion Sangermanense*

Ad Ganimedidis figuram. In Aquario

*scholion Hyginianum* + Cic. 55–8

<sup>1</sup> J. Soubiran, *Cicéron: Aratea, fragments poétiques* (Budé, Paris, 1972), 106–37. As F. R. D. Goodyear points out in his review, *CR* 92 (1978), 32, the elimination should have been carried through in the apparatus.

<sup>2</sup> Bischoff in *Karl der Grosse: Werk und Wirkung* (Aachen, 1965), 307; Saxl-Meier, *Catalogue of astrological and mythological illuminated manuscripts of the Latin Middle Ages*, III (London, 1953), 1.149–51.

<sup>3</sup> For reproductions see W. Y. Ottley, *Archaeologia* 26 (1836), Plate VII opposite p. 149 and Plates VIII, XII, XIV, XVI–XIX, after p. 150; Buescu, ed. (Paris and Bucharest, 1941), Plate I; Saxl-Meier, op. cit. (n. 2), I.xiii, 2, Plates 57, 60–1, 63–4, 66–7; A. Grabar and C. Nordenfalk, *Early Medieval Painting* (1957), p. 91 (in colour).

<sup>4</sup> Buescu, op. cit. (n. 3), 108–9. For a reproduction see *ibid.*, Plate II.

<sup>5</sup> A full text of these would have to be pieced together from Breysig, *Germanici*

*Caesaris Aratea cum scholiis* (Berlin, 1867), 105–232; Manitius, *Rb. Mus.* 52 (1897), 305–32; and E. Maass, *Commentariorum in Aratum reliquiae* (Berlin, 1898), pp. 99–312. J. Martin, *Histoire du texte des Phénomènes d'Aratos* (Paris, 1956), pp. 42–5, provides the best survey of what it would embrace. See also n. 55.

<sup>6</sup> P. von Winterfeld, 'De Germanici codicibus', *Festschrift Johannes Vahlen* (Berlin, 1900), 398–9. The objections of Sabbadini, *Riv. Fil.* 39 (1911), 244–5 = *Storia e critica di testi latini* (Padua<sup>2</sup>, 1971), pp. 135–6, repeated by Buescu, op. cit. (n. 3), 92–3, rest on the shaky assumption that the Vercellensis read exactly what appears in H. Oliverius, *Commentariorum Cyriaci Anconitani nova fragmenta notis illustrata* (Pesaro, 1763), p. 43; cf. A. Traglia, *Ciceronis poetica fragmenta II* (Rome, 1952), pp. 18–21.

Ad figuram egregiam Persei talerati, et dextera Medusae caput, sinistra vero gladium gerentis. Perseus

*scholion Hyginianum* + Cic. 20–6.

Ad Pisces

*scholion Hyginianum*

Ad alium piscem

*scholion Hyginianum*.

This body of evidence was discussed with exemplary thoroughness by G. Kauffmann, 'De Hygini memoria scholiis in Ciceronis Aratum Harleianis servata', *Breslauer philologische Abhandlungen* 3.4 (1888), 24–36. He drew three conclusions about the Vercellensis:

1. In Cicero it was closer to D than to H (he did not know AM).
2. It was not laid out like H but had scholia from two sources, Hyginus and the *scholia Sangermanensia*, above and alongside the illustrations.
3. The scribe worked from an exemplar laid out like H and miscopied the scholia on Perseus and Aquarius by proceeding from the first arm to the chest instead of the second arm (Kauffmann reconstructs what must have been on the second arm).

In *Österreichische Kunsttopographie I: die Denkmale des politischen Bezirkes Krems* (Vienna, 1907), pp. 499–500, H. Tietze described a manuscript that editors have not used, Göttweig Stiftsbibliothek 146 (let it be called G).<sup>7</sup> Written at Milan or thereabouts in a Gothic of s. xv<sup>1</sup>,<sup>8</sup> it has illustrations and scholia of the same kind as H (except that the scholia are in the script of the text), and yet the *scholia Sangermanensia* precede as in D, illustrations and all.<sup>9</sup> Agreements in Cicero with AM, e.g. 136 *lumine*, 167 *convincere*, 179 *etenus*, 289 *totus*, 333 *tempore cursus*, 350 *primo* om., and with Cyriac in the bizarre spelling *babtis* for *aptis* at 24, establish a connection with the Vercellensis. Not only that, but G triumphantly confirms Kauffmann's third conclusion, because just what he expected appears on the second arm of both Perseus and Aquarius.

Was Kauffmann right, though, to blame the miscopying on the scribe of the Vercellensis rather than Cyriac himself?<sup>10</sup> If he was, then G cannot derive from the Vercellensis, or it would have the same error. Similarly, it cannot derive from the Vercellensis if Kauffmann's second conclusion stands. At least part of

<sup>7</sup> Saxl-Meier, op. cit. (n. 2), xix, xxi, led me to Tietze. I am much obliged to the Warburg Institute for access to a complete set of photographs.

<sup>8</sup> The script is of a type very hard to date. Cf. Masai and Wittek, *Manuscripts datés conservés en Belgique* II (Brussels, 1972), Pls. 225–6 (1408); Samaran and Marichal, *Catalogue des manuscrits en écriture latine portant des indications de date, de lieu ou de copiste* VI (Paris, 1968), Pl. 88 (Milan, 1428–39), II (1962), Pl. 101 (Milan/Pavia, 1442), I (1959), Pl. 115 (Milan, 1459); G. I. Lieftinck, *Manuscripts datés conservés dans les Pays-Bas* I (Amsterdam, 1964), Pls. 401 and 406 (Piedmont, 1440 and 1493); A. G. Watson, *Catalogue of dated and datable manuscripts c. 700–1600 in the Department of*

*Manuscripts, the British Library* (London, 1979), Pl. 794 (Milan, 1477).

<sup>9</sup> For descriptions of D see Manitius, op. cit. (n. 5), pp. 306–7, and Maass, op. cit. (n. 5), pp. xxi–xxii; Hyginus intervenes between the *scholia Sangermanensia* and Cicero. G has lost leaves after ff. 3, 9, 14, 16, but as I cannot work out the quiring from the photographs, I do not know whether Hyginus is likely to be missing after f. 16; on other grounds probably not (cf. n. 55).

<sup>10</sup> He did blame Cyriac for making Perseus left-handed, but wrongly: the illustrator has done this, whether by switching the sword and Medusa's head or by having him face the front and not turn his back on the reader as he does in the *scholion Sangermanense*.

this conclusion, however, will not stand. G has lost the *scholion Sangermanense* on the Dolphin, but as D places it *super Delphini figuram*, G presumably did so too, and Cyriac may be supposed to have found it at this point in the Vercellensis rather than above the illustration that accompanied Cicero's verses. Nevertheless, four instances of *ad* remain; but must it mean 'alongside' rather than 'on' in the sense of 'about'? and if Cyriac had before him scholia and illustrations combined as in H, would he have been quite so certain to draw or describe them as Kauffmann maintains? Accept that Kauffmann overshot, and G can be derived from the Vercellensis—always provided that no readings stand in the way.

One reading apparently does.

20 *e pedibus natum summo Iove Persea vises*  
*persea vises* D<sup>2</sup>: *perse avis est* H: *persea visses* D<sup>1</sup> G:  
*perseus es* AM, Cyriacus

AM have further errors in passages not cited by Cyriac, e.g. 69 *iam anni*, 78 *cadens*, 83 *undas*, 164 *sub culmine*, 186 *de om.*, 229 *portata*, 245 *cognosces*, 314 *lunae*. G cannot have been copied from the Vercellensis, therefore, unless AM and Cyriac's notes derive from another copy.

Perhaps, though, fifteenth-century manuscripts can be multiplied more lightly than *libri antiquissimi*. That the Vercellensis was a *liber antiquissimus* need not be doubted, and G bears many signs of descent from one. It makes a terrible mess of dividing words, it spells atrociously,<sup>11</sup> and it writes *suspicien*, *torquen*, *depellen*, as if the missing *s* had been ligatured with the *n*.<sup>12</sup> Even so, direct transcription from a *liber antiquissimus* is no easier to prove than it usually is.

Whether copied from the Vercellensis or not, G excels AM in honesty; but as the agreement of H with either D or AM will represent the archetype, G contributes something only where D and AM disagree and neither agrees with H, namely in the following passages:<sup>13</sup>

20 *persea visses*, 31 *ac*, 32 *a vulguratione*, 39 *clarat* (Turnebus), 45 *sic genus*, nisi, 57 *vissit*, 68 *fixum*, 74 *tum*, 78 *ut*, 79 *supera*, 84 *missore vocans*, 86 *ecclinata*, 99 *fula*, 101 *astri*, 105 *haud ita om. in lac.*, 107 *clara*, 110 *at*, 117 *flamina*, 130 *se per*, 135 *ad celsum*, 136 *ad malo*, 163 *nomine*, 166 *clarare*, 167 *convincere*, 179 *etenus*, 184 *permulget*, 216 *ad*, 224 *cernes*, 225 *voles*, 231 *suo*, 236 *magno sedemus*, 245 *hac*, 250 *bis*, 251 *superes*, 265 *estivus*, 266 *diiungitur*, 271 *qua suis*, *frequentet*, 281 *cendens*, 282 *in*, 299 *orbis*, 304 *possi et*, 309 *supera terras*, 332 *sola eterno*, 350 *iam*, 358 *cervibus*, 366 *convestit*, 369 *casum*, 370 *parte facta*, 373 *ad flexo*, 414 *funestra*, 423 *quam*, 429 *cum*, 464 *lumina*.

209 *perportans* (Baehrens: *perpotans* HDAM) must be a lucky slip.

<sup>11</sup> At 357 it turns *a genibus* into *adienibus*; cf. Kauffmann, p. 24 on *geniali* for *biemali* in the Vercellensis, confirmed by *geniali* or *gemali* in G.

<sup>12</sup> I have noticed such a ligature in P of Germanicus's *Aratea* (Paris. Lat. 7886, s. ix<sup>3</sup>/<sub>4</sub>, from Corbie) on f. 15r at the foot of the second column, and Bruce Barker-Benfield kindly refers me to another in Lupus's notes on Berlin Phill. 1872 f. 101r. At 216 *torquen* must lie behind *torqueri*

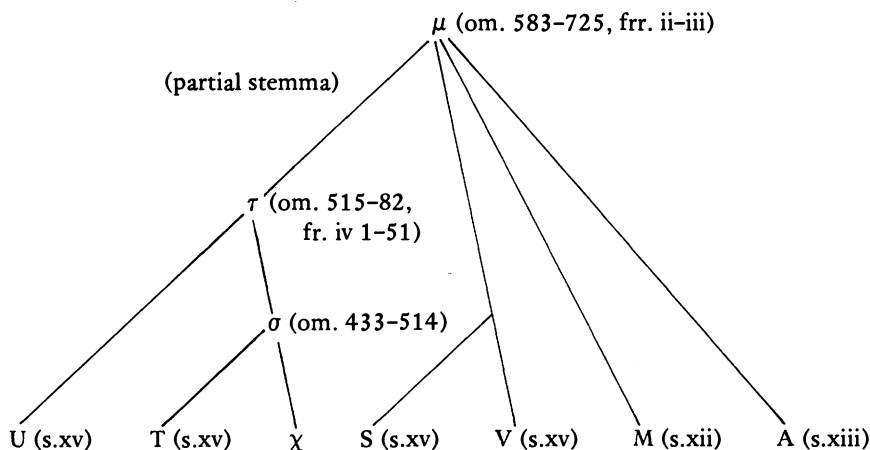
in AM.

<sup>13</sup> I have trusted Soubiran's report of HDAM. H<sup>2</sup> has no authority, and BCKLT should be ignored except where H has lost leaves; V and S should be ignored altogether. I throw in one or two readings that a strict application of the stemma would exclude, mostly where G agrees with H against DAM, and I report G wherever Soubiran prints a reading on the authority of D or AM. Orthographical variants I largely ignore.

If G was copied from the Vercellensis, another copy is Siena Com. L IV 25, which contains a fragment of the *scholia Sangermanensia*.<sup>14</sup> The hand has been assigned to s.xiv<sup>2</sup>, half a century earlier than the usual date for G, but in layout and text the manuscript resembles G very closely, and the hands may even be identical. G is less accurate but does not seem to have been copied from the other.

## II

Several fifteenth-century manuscripts of Germanicus's *Aratea* have in their title some such phrase as *fragmentum . . . noviter repertum in Sicilia*; the discovery is usually credited to Poggio in 1429, though no evidence takes him south of Montecassino.<sup>15</sup> As Latin texts seldom turn up in Sicily, more information about the Siciliensis would be welcome. Unfortunately, it cannot immediately be identified with any of the lost manuscripts that D. B. Gain in his edition (London, 1976) denotes by Greek letters in his stemma (p. 1), because he says not a word about the history of the text or the titles of the fifteenth-century manuscripts;<sup>16</sup> but reference to the edition of Breysig (<sup>1</sup> Berlin, 1867, <sup>2</sup> Leipzig, 1899) or of Le Boeuffle (Budé, Paris, 1975) reveals that no mention of Sicily occurs in the stemma above  $\chi$ , the source of 13 fifteenth-century witnesses:



Saxl declared that the Siciliensis was best represented by U, Vat. Barb. Lat. 76,<sup>17</sup> certainly the fullest of the fifteenth-century manuscripts once S and V are put

<sup>14</sup> P. McGurk, *Catalogue of astrological and mythological illuminated manuscripts of the Latin Middle Ages IV* (London, 1966), 82 + Pl. IIIa. I have inspected photographs at the Warburg Institute. For evidence of its proximity to G see n. 55.

<sup>15</sup> *Ep.* 1.304 (to Niccoli from Rome, 27.12.1429): 'Nam de Frontino et fragmento Arati quod scribis, illi apud me sunt.' One thinks of two Sicilians interested in manuscripts, Panormita and Aurispa. Neither was in the south at the time, but Panormita had met Poggio at Rome in

1428; see G. Resta, *Diz. biog. degli italiani*, 7 (Rome, 1965), p. 401.

<sup>16</sup> On the inadequacy of his remarks about the manuscripts see J. B. Hall, *Proc. Afr. Class. Assoc.* 14 (1978), 44-51. His microfilms are in the Senate House, London University, to which I am indebted for the loan of them.

<sup>17</sup> *Verzeichnis astrologischer und mythologischer illustrierter Handschriften des lateinischen Mittelalters in römischen Bibliotheken* (Sitzungsber. der Heidelberger Akad. 1915. 6-7), 4.

where they belong in the library of Salutati.<sup>18</sup> Like Gain, however, he missed plain evidence that U is hybrid: in passages that it shares with  $\sigma$  it has numerous variants, all contemporaneous with the text, and the original reading is invariably that of  $\sigma$ . Its source must have resembled Dyson Perrins 84 (now in private ownership elsewhere), written at Naples by G. M. Cinico and collated by a Neapolitan hand with a manuscript similar to A.<sup>19</sup> This collation and U<sup>2</sup> share with A e.g. 160 *sidera*, 375 *similem* for *si nullam*, 430 *fer(r)it*, and U, which adds 433–514, agrees with A in having no scholia or illustrations after 433, 439, and 458 (unless it ignored them). Gain's  $\tau$  therefore lapses, almost certainly leaving  $\sigma$  as either the Siciliensis or Poggio's copy of it.<sup>20</sup> The descendants of  $\sigma$  divide into two families:  $\chi$  seems to have been a Florentine copy of  $\sigma$ , because at least two Florentine manuscripts and possibly four derive independently from it;<sup>21</sup> and T, British Library Egerton 1050, written by Michael Laurentii probably at Rome towards 1470,<sup>22</sup> has two relatives unknown to editors, Dyson Perrins 84

<sup>18</sup> He owned S, Laur. Strozzi, 46, and himself wrote V, Vat. Lat. 3110, probably in the 1380s; see B. L. Ullman, *The Humanism of Coluccio Salutati* (Padua, 1963), p. 168 + Pl. VII, 2, 188–9, and A. C. de la Mare, *The Handwriting of Italian Humanists I*, i (Oxford, 1973), p. 41.

<sup>19</sup> An illustration can be seen in G. F. Warner, *Descriptive catalogue of illuminated manuscripts in the library of C. W. Dyson Perrins* (Oxford, 1920), II, Pl. LXIV, and another in Sotheby's catalogue for 9.12.58, Pl. 39; Dr de la Mare identified the scribe from them, and both show the collator, whose hand resembles Panormita's and Pontano's. I am indebted to the Warburg Institute for access to photographs (not complete) of this manuscript and also of Pierpont Morgan M 389, the Neapolitanus mentioned below (n. 21), and Aberystwyth 735C (see n. 44).

<sup>20</sup> Even if  $\tau$  existed, it did not omit vv. 70 and 96 as Gain says (p. 8), because U has both; the initial letters of vv. 71 and 97 are nevertheless illuminated, a further sign of contamination. Neither Gain nor anyone else reveals that  $\sigma$  omitted 263 as well as 70 and 96.

<sup>21</sup> Errors of  $\chi$  include 77 *honor*, 254 *palmis*, 266 *multo*, 352 *non om.*, fr. iv 58 *composuit*, 74 *ingreditur*, 94 *conspecta signa*, 109 *ostendunt*, 144 *ingreditur aurea* (in the last four passages I have been able to check only T of the other family); errors of the other family include 75 *erit om.*, 150 *huc*, 313 *rapit*, 340 *om.*, 361 *piscem*, 366 *undas*, 401 *centra*, 420 *placatam*. Gain's stemma below  $\chi$  seems wrong in several points. Unless I am much mistaken, Montpellier 452 derives from Madrid Bibl. Nac. 8282, Vat. Lat. 1653 (and why not also 3293?) from the *editio princeps*, and Berlin Lat. Oct. 149 from the manuscript

at Palermo, which together with Vat. Reg. Lat. 1801 derives through an intermediary from British Library Add. 15819. Gain's  $\epsilon$  does not derive from the source of Vat. Urb. Lat. 1358 and Laur. 89 sup. 43, twins shown by the illustrations in Saxl-Meier, op. cit. (n. 2), liv–lviii, to be in the same hand. I have noticed only the most tenuous evidence (nothing more solid than the subscription 'non sene trova piu') for grouping these twins with Madrid 8282 and Vat. Barb. Lat. 77. Dr de la Mare tells me that all four are Florentine, and she has touched on Add. 15819 ('Florence, c. 1465–75?') in *Cultural Aspects of the Italian Renaissance: Essays in Honour of P. O. Kristeller*, ed. C. H. Clough (Manchester, 1976), 185, No. 65. Fonzio's corrections in Add. 15819 recur in the *editio princeps*, in Eton 88 (no later than s. xv $\frac{3}{4}$  and attributed by Dr de la Mare to the Florentine scribe Dominicus Brasichillensis), and in a manuscript unknown to the editors, Naples Naz. XIV D 37, on which see McGurk, op. cit. (n. 14), pp. 62–4 (Dr de la Mare attributes it to G. A. Vespucci); the relationship of these four witnesses puzzles me, except that if the Neapolitanus omits 125–6 *vulgus-patrum* it will have been copied from Add. 15819 after correction. Gain also missed Dyson Perrins 84 (see above); Ambros. D 52 inf., presumably related as in Cicero to Montpellier 452; Siena Com. L VI 26, presumably copied as in Cicero from Montpellier 452; and an edition roughly contemporary with the *editio princeps*, namely I.G.I. 779.

<sup>22</sup> For an illustration see Saxl-Meier (n. 2), p. lii. What remains of the arms fits Fabio Mazzatosta; cf. *Maia* 27 (1975), 241 n. 51. On Michael Laurentii see CQ 71 (1977), 233 + n. 96.

and another manuscript written at Naples by G. M. Cinico, Pierpont Morgan M 389 (a. 1469).

Notes in descendants of  $\chi$  confirm what the text of  $\sigma$  already shows, that the Siciliensis had suffered loss and damage. How old was it, and how long had it been in Sicily?

Another descendant of  $\mu$ , namely M, Madrid Bibl. Nac. 19, was written in s.xii at Montecassino or thereabouts,<sup>23</sup> and the illustrations in this or a similar manuscript have long been recognized as an important influence on the work of Michael Scot, 'the leading intellectual in western Europe during the first half of the thirteenth century' and astrologer to the court of Frederick II at Palermo c.1227 to 1235.<sup>24</sup> The Siciliensis too had illustrations, and the activity of Michael Scot surely accounts for its presence in Sicily. Where did he find the text? The occurrence in M of a poem by Paul the Deacon makes Montecassino the obvious guess,<sup>25</sup> though Salerno should not be ignored.<sup>26</sup> The remaining descendants of  $\mu$ —A, the source of SV, and the secondary source of U and Dyson Perrins 84—do not help beyond confirming the general region. When Dyson Perrins 84 and U were written, the former c.1470 and the latter perhaps somewhat later, their secondary source must have been at Naples.<sup>27</sup> About the source of SV Salutati reveals nothing except that he found it.<sup>28</sup> Curiously for so early a manuscript, A, British Library Arundel 268 (s.xiii), is a *chartaceus*, which points to a region with Arabic contacts such as the kingdom of Sicily had;<sup>29</sup> furthermore, the relevant part of A begins with Arabic works on astrology

<sup>23</sup> Winterfeld, op. cit. (n. 6), pp. 395–6. In a work of 1912 that I have not seen, J. M. Burnam assigned M to Ripoll in Catalonia, and he has been followed by J. Millàs Vallicrosa, *Assaig d'història de les idees físiques i matemàtiques a la Catalunya medieval* (Barcelona, 1931), pp. 237–40, and A. Cordoliani, *Revista de Archivos Bibliotecas y Museos* 57 (1951), p. 7 and *Anuario de Estudios Medievales* 3 (1966), pp. 66–7; but half of Burnam's reasons as Millàs Vallicrosa reports them are quite plainly bad, and Cordoliani in his second article not only speaks of M as 'venant du Mont-Cassin' but also argues that at least part of it was copied from a Beneventan exemplar. J. Domínguez Bordona, *Manuscriptos con pinturas* (Madrid, 1933), No. 411, says 'no parece que el códice sea originario del escritorio de Ripoll, come supone Burnam, sino de Italia'. For plates of the script see the *Inventario general de manuscritos de la Biblioteca Nacional I* (Madrid, 1953).

<sup>24</sup> F. Boll, *Sphaera* (Leipzig, 1903), p. 445; Saxl-Meier, op. cit. (n. 2), pp. xxxv–xlili. The quotation is from Lynn Thorndike, *Michael Scot* (London, 1965), p. 1.

<sup>25</sup> Winterfeld, loc. cit. (n. 23). His remarks about Metz, however, make too much of Berlin Phill. 1832, especially since

it was written at Laon and only later passed to Metz; see J. J. Contreni, *The Cathedral School of Laon from 850 to 950* (Münchener Beiträge zur Mediävistik und Renaissance-Forschung 29, 1978), p. 125.

<sup>26</sup> On Montecassino and Salerno as the chief repositories of old learning in the kingdom of Sicily see H. Niese, *Hist. Zeitschr.* 108 (1912), 480–2.

<sup>27</sup> On U see *Les Manuscrits classiques latins de la Bibliothèque Vaticane I* (Paris, 1975), p. 125.

<sup>28</sup> V f. 54r 'Inveni librum metricum et prosaicum cuius titulus erat "T. Claudii Cesaris Arati phenomenia de celi positione et quinque circulis mundi". Ex hoc libello excerpti solummodo carmina, sed in alio volumine tam versus quam prosae scripta sunt.' Sabbadini, *S.I.F.C.* 7 (1899), 115–18, showed that Tortelli before 1449 consulted a manuscript like SV. The *praenomen* T. also survives in Aberystwyth 735C (see n. 44), and a lost manuscript catalogued c.1049–1160 at Lobbes (near Liège) had it too; see F. Dolbeau, *Recherches Augustiniennes* 13 (1978), 33, No. 302. I have remarked elsewhere on the haphazard transmission of titles: *CQ* 72 (1978), 231 n. 29.

<sup>29</sup> On the earliest Latin *chartacei* see E. M. Thompson, *Encyc. Brit.*, ed. 11, XX (1911), 726, who mentions A without saying more than that it is 'in an Italian

translated in Spain before 1151 and subsequently incorporated in the *Liber novem iudicum*, which took shape in Sicily and finds its first mention in the *Liber introductorius* of Michael Scot.<sup>30</sup> Could  $\mu$  in fact have been a new arrival from Spain and not an old resident of Montecassino? One of the translators busy in Spain during the 1140s, Hermann of Carinthia, had spent time in France, and he knew Aratus and Hyginus;<sup>31</sup> Michael Scot learned his Arabic in Spain. A journey from France to Sicily by way of Spain would be unusual for a Classical text, but here are two men who might have brought it about. Unless M can be moved to s.xiii, however, it will have been written before Michael Scot arrived in Italy c.1220, and so  $\mu$  must revert to Montecassino. Wherever  $\mu$  originated and whatever travels it enjoyed, A bears witness to the fusion of Latin and Arabic learning that began in Spain and continued in Sicily, and the Siciliensis must either have contributed to the astrological studies of this mixed culture or have sprung from them.

Was the Siciliensis  $\mu$  itself? Illustrations apart, the Aratean contents of  $\mu$  survive most fully in S, to which the scholia owe their name of *scholia Stroziana*. As K. Robert showed,<sup>32</sup> these scholia conflate the *scholia Sangermanensia*, the *scholia Basiliensia*, and excerpts from the elder Pliny. Since Robert's analysis goes into more detail than matters here, I will set out the Aratean contents of  $\mu$  as simply as possible.<sup>33</sup>

1. Arati genus (Manitius, 330–2, Maass, 146–50),<sup>34</sup> accompanied by an illustration of Aratus and the Muse: *Aratus patris quidem est Athenodori filius—repperimus autem illum et super*

2. De caeli positione et quinque circulis mundi (Breysig<sup>1</sup> 105–107.13), accompanied by a planisphere: *Caelum circulis quinque distinguitur—anteposita his deformia*

3. De volutione et ordine sphaerae (ibid., 107.14–109.10 = 224.5–225.18, Maass, 155–61): *Hic est stellarum ordo—habet stellam*

4. Germanicus 1–582<sup>35</sup> + fr. iv, accompanied by scholia (ibid., 109.12–220) and illustrations.

1–3 come straight from the *scholia Sangermanensia*, and the scholia in 4 are what Robert unravelled. Furthest from  $\mu$  is A, which presents an edited version: 2–3 and the strictly astronomical parts of 4 up to 211.2 *atque* occupy ff. 85r–92r, two other texts intervene,<sup>36</sup> and then Germanicus's verses (+ fr. v) follow on

hand of the first half of the 13th century'; he had inspected it for Baehrens (*P.L.M.* 1.143). It appears to be the earliest *chartaceus* of a Classical Latin text. For a sample of the script see *Catalogue of manuscripts in the British Museum I: the Arundel manuscripts* (London, 1840), Pl. III.

<sup>30</sup> C. S. F. Burnett, *Journal of the Royal Asiatic Soc.* 1977, 62–108, with an edition of the preface from A and Bodl. 430; see n. 34 on Michael Scot.

<sup>31</sup> R. Lemay, *Abu Ma'shar and Latin Aristotelianism in the twelfth century* (Beirut, 1962), p. 30.

<sup>32</sup> *Eratosthenis catasterismorum reliquiae* (Berlin, 1878), 201–20. His stemma (p. 209) does not fit his own evidence, which shows that BP had a common source below  $\beta$ ;

corrected accordingly, it matches the corresponding part of Gain's stemma for Germanicus (Robert's  $\beta$  = Gain's O).

<sup>33</sup> Gain says nothing about them, but his assertion that 'only M of the  $\mu$  manuscripts conforms completely to its stemmatic position' (p. 8) would be disturbing if it were true. I have no idea what lies behind it.

<sup>34</sup> Opp. citt. (n 5).

<sup>35</sup> All the verses omitted by  $\mu$  were already omitted by O, the common source of  $\mu$  and  $\nu$ .

<sup>36</sup> Ff. 92v–95v 'Puplii Virgilii Maronis astronomice artis liber' (a cento, Walther 17030); f. 95v (untitled) *Sol duabus unius orbis ultimis partibus—eadem spatia conficiunt* (Cic. *De nat. deorum* 1.87).

ff. 96r-103v under a title indebted to 1 for its last phrase, 'filii Athenodori et Delitophile'. Editors should be slower to take fr. v on trust from such a witness, even when the text runs on with no more of a break than the rubricated paragraph that occurs in 17 places from 147 to 462.<sup>37</sup> The other descendants of  $\mu$  are all transcripts rather than editions, but each is incomplete. S has the full text but no illustrations. M omits 2-3 and the following parts of 4:<sup>38</sup>

vv. 1-16 + schol. 109.12-111.5 *Diodorus* (omitted with 2-3)

vv. 522-31 + schol. (187.23-188.20)

one line after each illustration (except 433; also 48, 535).

In  $\sigma$  or its exemplar 1 and 2 were lacunose<sup>39</sup> and 4 had lost the following passages:

schol. 181.14 *tres*-193.4 + vv. 433-514, fr. iv 1-51

schol. 215.16 *atque*-220.

At the first of these gaps several descendants of  $\chi$  write in the margin 'deest in exemplari' or similar words. The second is not indicated in any way: the text jumps in the middle of a sentence to Hyg. 4.6 *manu sinistra Bootis* (Bunte, 105.3), and Hyginus continues until at 4.14 *si quis* (Bunte, 116.19) 'plura deficiunt quae propter vetustatem et quinternionum fractionem colligi nequaquam potuerunt' (Add. 15819). A more important difference between M and  $\sigma$  lies in the placing of the illustrations. Whereas M throughout puts them after the texts they illustrate,  $\sigma$  puts them before, except that the serpent and bears separate vv. 17-64 from the scholion instead of preceding v. 17 or v. 48. This difference must go back to the exemplar of each, because in spite of omitting vv. 1-16 and most of the scholion M nevertheless depicts Jupiter and the eagle after the rest of the scholion, and  $\sigma$  likewise breaks off in the middle of the scholion on Hydra (181.14) but depicts Hydra before vv. 429-30.<sup>40</sup> Which, then, was the arrangement of  $\mu$ ? The tradition has other branches, and  $\mu$  was not the only illustrated manuscript.<sup>41</sup>

<sup>37</sup> Winterfeld, op. cit. (n. 6), p. 396 n. 7, contested its authenticity on stemmatic grounds. Gain meets only Breysig's argument (ed.<sup>2</sup>, pp. xxviii-xxix).

<sup>38</sup> Martin, op. cit. (n. 5), pp. 38-9, wrongly says that M contains the *scholia Basiliensia*.

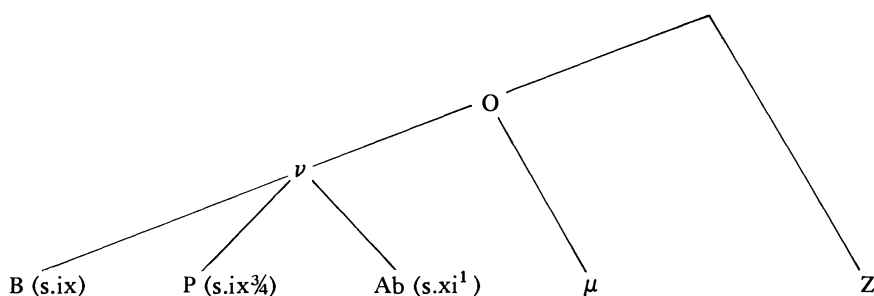
<sup>39</sup> The lacunae in  $\chi$  are easily reconstructed, but not so those in  $\sigma$ , because T omits most of the detached phrases between lacunae (I have not seen this part of Dyson Perrins 84 or Pierpont Morgan M 389). The supplements in U may have come from its secondary source. Supplements also occur in Montpellier 452 (Gain's microfilm begins after *Arati genus*, but Siena L VI 26 and the ed. Ven. 1488 both have them); to judge from its readings, e.g. *Gecraustius* where  $\mu$  read *Grecaustius*, it may have drawn on a manuscript of the *scholia Sangermanensia* rather than Germanicus, but it certainly drew on another descendant of  $\mu$  for the end of the scholion on Hydra (181.14 *tres*-18 *quadraginta tres*). Laur. 89 sup. 43 has

the same supplements, entered later by the scribe himself.

<sup>40</sup> Perhaps, therefore, the illustration of Aratus and the Muse, which follows *Arati genus* in M, preceded it on a separate page in  $\sigma$  or its exemplar and later came adrift. Otherwise it would be hard to see why  $\sigma$  should omit it.

<sup>41</sup> Being the only manuscript to contain the *scholia Stroziana*,  $\mu$  alone depicts a female Centaur after the passage cited by Breysig in the apparatus on 112.3. The source of this illustration has not been traced; see Boll, op. cit. (n. 24), pp. 445-6, and Saxl-Meier (n. 2), p. xxxviii. On the illustrations in Germanicus and other astronomical texts see G. Thiele, *Antike Himmelsbilder* (Berlin, 1898), Ch. IV; A. W. Byvanck, *Med. Kon. Ned. Akad. Wet. N.R.* 12 (1949), 169-235 (to be used with care); Saxl-Meier, op. cit., pp. xiii-lix; Martin, op. cit. (n. 5), pp. 48-51; McGurk, op. cit. (n. 14), pp. xiii-xxv, and *Nat. Lib. of Wales Journal* 18 (1973-4), 197-216.





The illustrations in B (Basel Univ. AN iv 18, from Fulda)<sup>42</sup> resemble those in M and are put in the same place; P (Paris. Lat. 7886, from Corbie)<sup>43</sup> has no illustrations; Ab (Aberystwyth, Nat. Lib. of Wales 735C, probably from Limoges) has illustrations in the same place as B and M.<sup>44</sup> It therefore seems that M and not  $\sigma$  reflects the arrangement of  $\mu$ , so that  $\mu$  cannot have been the Siciliensis. The text of Hyginus in  $\sigma$  points to the same conclusion. It must have been indistinguishable in appearance from 1–4, or else the scribe would not have switched to it in mid sentence; if it can be dated, therefore, the date should hold for the *Aratea* too. In default of a thorough and reliable edition of Hyginus, any conclusion must be provisional, but of the manuscripts reported in Sister L. Fitzgerald's unpublished edition (diss. St. Louis, 1967)<sup>45</sup>  $\sigma$  comes closest to two of s.xii, Vindob. 51 and Guelph. 18.16 Aug. 4<sup>0</sup> (3147):<sup>46</sup> e.g. 107.18 *tria signa sunt*, 111.24 *solam puppim*, 116.18 *conclisiorem locum*.<sup>47</sup> No one has ever suggested so late a date for  $\mu$ .

In short, the Siciliensis was probably copied from  $\mu$  in s. xii–xiii.<sup>48</sup> If it was written in Sicily, the activity of Michael Scot yields a fairly precise date; if it was taken there, it could have been written in the previous century. Apart from bringing together Germanicus and Hyginus and for some reason transposing the illustrations, it did not fashion a new text as its brother A and its parent  $\mu$  did.

<sup>42</sup> Winterfeld, op. cit. (n. 6), pp. 393–5.

<sup>43</sup> Bischoff, *Mittelalterliche Studien* I (Stuttgart, 1966), p. 59.

<sup>44</sup> McGurk discusses Ab, which editors have not used, in the article of 1973–4 cited above (n. 41). He does not say where it puts the illustrations, but I have looked at photographs in the Warburg Institute.

<sup>45</sup> See D.A. 28 (1968), 3656A; the Bodleian has an authorized copy (2954 e 1). The Teubner of B. Bunte (Leipzig, 1875), founded on three manuscripts from German libraries when over 50 exist, has survived repeated exposure of its inadequacy and inaccuracy and now reappears in Italian dress (Pisa, 1976). Sister Fitzgerald's edition is preceded by a list of 61 manuscripts, accompanied by a collation of 28, and followed by a discussion of these 28.

<sup>46</sup> She somehow conflates the latter with Vindob. 2269 in her description (p. 27).

<sup>47</sup> Errors of  $\sigma$  that appear in no manuscript reported by Sister Fitzgerald include 105.4 [*ad*] *antarcticum autem circum tangit*, 105.9 *pennam sinistram quae ultra*, 106.9 *difficilis om.*, 110.19 *auribus*, 112.5 *corpore et*, 12 *permanentem semper*, 24 *<necesse est> effugere*, 113.12 *posse <constat>*, 20 *occasum <non>*, 9 *consistat quaelibet autem navis*.

<sup>48</sup> I do not know why Saxl, loc. cit. (n. 17), says that on the evidence of U 'es ist . . . sehr wahrscheinlich, dass Poggios Hs. in karolingischer (spätestens ottonischer) Zeit geschrieben war', or why Byvanck, op. cit. (n. 41), p. 7, adds that 'de humanisten beschouwden het als een codex, die uit de klassieke Oudheid stamde'. As B. L. Ullman says in *Studi in onore di Luigi Castiglioni* (Florence, 1960), II, p. 1037, 'it is a universal assumption, inherited from the period of romanticism, that every lost manuscript must have been both old and valuable.'

As for  $\mu$ , its Aratean contents were not all. In M and S they are preceded by an anthology of short astronomical poems that recurs in Cava 3 (s. xi) and partially in the *Liber introductorius* of Michael Scot.<sup>49</sup> One of these, *Primus Romanas* (*Anth.* 639), has recently been furnished with a detailed apparatus, and even in a mere 12 lines four readings sharply characterize the family: 2 *vicinum*, 11 *praecipitat, intempestate*, 12 *praecipuum ad alta revocat sidus December*.<sup>50</sup> The last is of some interest, not so much for its complete lack of metre as because 24 or 25 of the other 26 manuscripts, many of them from s. ix, share a different interpolation.<sup>51</sup> The family of  $\mu$  must have escaped it by leaving France before it began to circulate. Whether  $\mu$  also contained Bede *De temporum ratione* like M and Cava 3, and perhaps even a *computus* put together in 904, is an open question,<sup>52</sup> and it may of course have been a composite manuscript in any case.

Finally on  $\mu$ , a word about its exemplar, O. Unlike the illustrations that accompany the *scholia Sangermanensia* or a descendant of Z, namely L (s. ix), those in B, Ab, and M $\sigma$ , all conflate Cancer with Gemini and Capricorn with Aquarius,<sup>53</sup> and so they must derive from a common source, which it would be perverse not to identify with O.<sup>54</sup> O must also have contained the *scholia Basiliensia*, preserved in the descendants of  $\nu$  and absorbed into  $\mu$ . Though every descendant of O except Ab contains material from *Aratus latinus*, whether in the purer version of BP or in the revised version known as the *scholia Sangermanensia*, none of it can safely be attributed to O, because the *scholia Sangermanensia* were not created by  $\mu$  but have a separate tradition.<sup>55</sup>

<sup>49</sup> For a table of the poems as they appear in M, S, and Cava 3, see A. Cordoliani, *Anuario de Estudios Medievales* 3 (1966), pp. 74–6; his derivation of S from M flies in the face of a simple fact exhibited on p. 75. I have consulted the *Liber introductorius* in MS Bodl. 266, where ff. 93r–94r present Nos. 2–6, 9, and 13, of the 19 pieces tabulated by Cordoliani.

<sup>50</sup> S. Prete, *Ausonius* (Teubner, Leipzig, 1978), 104.

<sup>51</sup> According to Prete, K<sup>3</sup> reads *unde december amat te genialis hiemps*, but N. W. Tobin, *The text of the Eclogae of Decimus Magnus Ausonius* (diss. Fordham, 1967), p. 35, explains that it fuses *Primus Romanas* with *Dira patet Iani* (*Anth.* 394) and puts the last two lines in the wrong order; *unde December* is actually the last line of *Dira patet Iani*, and the line that belongs to *Primus Romanas* is the usual interpolation, *imbrifer ast mensis tumque december adest*. On the other hand, Tobin says that A<sup>4</sup> omits the line (p. 36), while Prete cites a variant from it. I believe Tobin about K<sup>3</sup> but do not know whom to believe about A<sup>4</sup>.

<sup>52</sup> Cf. Cordoliani, op. cit. (n. 49), pp. 67, 74 + n. 52.

<sup>53</sup> T and its relatives put Capricorn at the appropriate point in the scholion, but

the other manuscripts all agree against them.

<sup>54</sup> McGurk, op. cit. (n. 44), regards the text of Ab as hybrid and its illustrations as significantly different from those in other manuscripts of Germanicus; but his evidence on the first point will not bear inspection, and even if contamination accounts for certain similarities between its illustrations and those in the pseudo-Bedan catalogue of stars, the presence both of Aratus and the Muse and of Jupiter and the eagle shows that they belong fundamentally to Germanicus.

<sup>55</sup> Martin (n. 5), p. 44, gives the fullest list of manuscripts. Add G of Cicero (see part I) and Siena Com. L IV 25 (n. 14). From photographs at the Warburg Institute I have collated G and the Senensis where they overlap, namely in pp. 109–204.2 and 210.4–238.5 of Maass, op. cit. (n. 5), and in the same passages Maass's DKS<sup>II</sup> and such parts as were visible of S<sup>I</sup>, the Sangermanensis, and Paris Nouv. Acq. Lat. 1614 (N in what follows). G and the Senensis share e.g. 190.2 *ut circo*, 192.4 <et> *Bacchus*, 194.6 <et> *in capite*, 213.6 *extendit*, 221.1–2 *summa for sub uno*, 6 *eam*, 221.1 *proiecta*, 231.2 *vermes for nervi*. In several places they stand with K and the Sangermanensis against DS<sup>I</sup>S<sup>II</sup>, which read e.g. 190.2 [*a love*] (so too N), 197.3 [*ideo*], 199.1

The descendants of Z are these:

L Leyden Voss. Lat. Q 79 (s. ix<sup>1</sup>, written in rustic capitals)

E Einsiedeln 338 (s. x)

C Boulogne 188 (not before 905),<sup>56</sup> 'supposé venir de Saint-Bertin'<sup>57</sup>

Bern 88 (s. x), presented to St. Mary, Strasbourg by Werinhar, bishop  
1001 to 1028; copied from C.<sup>58</sup>

L has deservedly attracted more attention than its fellows, because both its illustrations and its script recall an earlier age. Scholars cannot resist deriving C from it even though published evidence places a large obstacle in the way: L omits 142 and 144–6.<sup>59</sup> The lines were not omitted, however, by the man who four or five centuries later availed himself of the ample space left by the original scribe and wrote the text out again in the script of his own day.<sup>60</sup> The improbability that he used another manuscript should have prompted a careful inspection of L. In fact traces of the lines, especially the final -NTUR of 146, can be discerned in the middle of f. 15v under the Gothic transcript of 107–12.<sup>61</sup> The later scribe erased them because the continuous stretch of text on ff. 14r–15v cramped him for space.

Nothing seems to be wrong with the reasons that have been given for not deriving E from L, that it sometimes agrees with O against L<sup>62</sup> and alone preserves fr. ii, 17–20.<sup>63</sup> It must descend, however, from a manuscript that had exactly the same layout as L. Four passages that it omits all occupy whole leaves in L: 269–75 (f. 45), 286–314 (ff. 51–53), 321–7 (f. 57), 394–413 (f. 73). Moreover, these leaves all form either the centre or the outside of a quire: ff. 44–45 the centre, ff. 51–54 the centre, ff. 57 + 64 the outside, ff. 73 + 80 the outside (ff. 44, 54, 64, 80, have no text but only illustrations).<sup>64</sup> Gain has argued on other grounds that Z, the exemplar of L, closely resembled L.<sup>65</sup>

*unam for singulas*, 201.5 [*eam*], 203.3 [*signis*], 212.2 *toniadae*, 223.2 *delton*, 224.1 *asingulis* for *angulis* (so too N), 235.3 [*ut*], 238.2 *quo*. DS<sup>I</sup>S<sup>II</sup> are clearly wrong at 190.2, 199.1, 212.2, 223.2, 224.1, 238.2, and N presumably agrees with them in all these places; whether the rest also form a group is not clear. Before S<sup>II</sup> was corrected from outside its group, it closely resembled S<sup>I</sup>, but it does not seem to have been copied from it: 196.5 [*labio*] S<sup>I</sup>. These remarks are compatible with Manitius's stemma for D, K, and the Sangermanensis, op. cit. (n. 5), p. 308 n. 1, but conflict with Martin's assertion, op. cit., p. 44, that N resembles the Sangermanensis, and with the assertion I have read somewhere that S<sup>II</sup> was copied from S<sup>I</sup>. Maass did not see that the lists of stars given by D at the end of the sections on Lyra, Cycnus, Aquarius, and Capricornus, were interpolated from the pseudo-Bedan catalogue of stars.

<sup>56</sup> Thiele, op. cit. (n. 41), p. 82.

<sup>57</sup> *Catalogue général des manuscrits des bibliothèques publiques des départements* IV (Paris, 1872), p. 687.

<sup>58</sup> R. Dahms, *Jahrb. für class. Phil.* 99 (1869), 270–1.

<sup>59</sup> Cf. Breysig<sup>2</sup> xv, ignored by the latest champion of the derivation, K. A. de Meyier, *Codices Vossiani Latini II: codices in quarto* (Leyden, 1975), p. 187.

<sup>60</sup> For a specimen of both scripts see Thiele, op. cit. (n. 41), p. 78.

<sup>61</sup> I examined L in August 1979.

<sup>62</sup> Gain, p. 8. Le Boeuffle, p. xlvii, says that L and E differ in 110 places, a figure useless until it is broken down; a quick look through his apparatus reveals at most 55 errors of L, many of them trivial but some of more weight, e.g. 276, 335, 367, 421, 441.

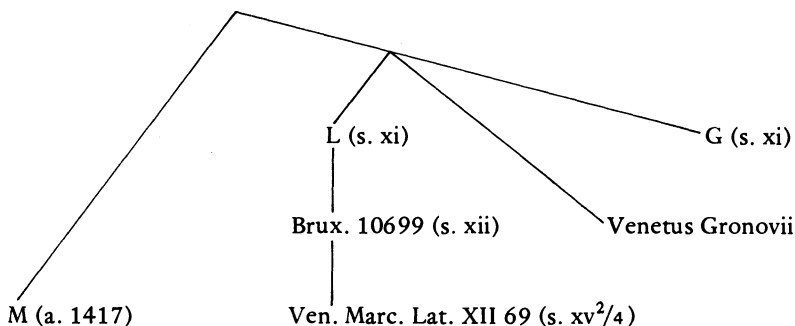
<sup>63</sup> Le Boeuffle, p. xxvi, Gain, p. 124.

<sup>64</sup> Thiele, op. cit. (n. 41), pp. 79–80. Gain nowhere refers to Thiele, and his own description of L, pp. 5–6, is less helpful.

<sup>65</sup> pp. 5–8.

## III

An entry in *Iter Italicum* arouses curiosity: Parma Palat. 283 (ch. xv) f. 37v *M. Manilii Stronomicon liber primus sic incipit et est in bibliotheca Spirensi*.<sup>66</sup> Where did Speyer fit into the history of the text?



G, Brux. 10012, is one of many Classical manuscripts written at Gembloux in the abbacy of Olbert (1012 to 1048),<sup>67</sup> and Traube assigned L, Leipzig Univ. 1465, to the same region.<sup>68</sup> That region now acquires a third Manilius, registered in a catalogue of c.1049 to 1160 from the Abbey of Lobbes:<sup>69</sup>

Astronomicon lib. VI. T. Claudii Caesaris Arati phenomena. Periegesis Prisciani. Vol. I

G too contains Priscian's *Periegesis*, and so did a manuscript catalogued at Toul before 1084:<sup>70</sup>

cuiusdam de astronomia cum peryesi Prisciani et Girberto de astrolapsu vol. I.

The most striking characteristic of this family is that it has never heard of Manilius. In G 'Manlius poeta' was substituted in s. xv for the original title, which has not been deciphered, and the title in L, which looks as though it owed something to the conjunction of texts seen in the manuscript at Lobbes, reads 'Arati philosophi astronomicon liber primus incipit'. When Nicholas of Cusa brought Brux. 10699 to the Council of Basel in the 1430s and an Italian hand copied the Marcianus from it, Manilius had already reached Italy under his true name in M, Madrid, Bibl. Nac. 3678, written for Poggio during the Council of Konstanz; but Poggio does not reveal where he found the exemplar of M. Similar obscurity shrouds the lost Venetus collated by Gronovius (s. xi in his opinion),<sup>71</sup> probably identical with the lost manuscript of Piero Leone collated by Politian at Padua in 1491 ('libro che io per me non ne viddi mai più antiqui').<sup>72</sup> The only other

<sup>66</sup> P. Kristeller, *Iter Italicum* II (Leyden, 1967), 46, cited in *CQ* 71 (1977), 223 n. 97.

<sup>67</sup> A. Boutemy, *Annales de la Soc. Arch. de Namur* 41 (1934), 43-85 and *Mélanges Félix Rousseau* (Brussels, 1958), pp. 111-20.

<sup>68</sup> *Philologus* 66 (1907), 122-3.

<sup>69</sup> Dolbeau, loc. cit. (n. 28).

<sup>70</sup> G. Becker, *Catalogi bibliothecarum antiqui* (Bonn, 1885), 68, No. 210 (pp. 152-3).

<sup>71</sup> His collation has been used only in Bentley's copy, but the original survives in

Leyden 755 H 15 (ed. Lugd. 1566). It mentions neither the identity nor the age of the manuscript, but Jacobus Gronovius was somehow able to inform Bentley of both; perhaps a note has come adrift in rebinding.

<sup>72</sup> People repeat Sabbadini's inference in *Le scoperte dei codici latini e greci ne' secoli XIV e XV*, I (Florence, 1905), p. 170 that Leone's manuscript was 'in maiuscolo o comunque anteriore al sec. IX', but surely Politian just meant that

medieval manuscript extant or attested is the lost Bobiensis requested by Gerbert in 988.<sup>73</sup>

In March 1978 I examined the Parmensis, which tells an interesting story. The hand and the other contents put it firmly in Italy, probably in Padua or Ferrara, and the relevant part dates from 1452 or later (f. 34r). After the introduction reported by Kristeller the Parmensis gives the first 15 lines of the *Astronomica* and then adds 'sunt libri sex; ultimus est completus'. By a stroke of bad luck the one leaf that M has lost included 1.1-15, but three descendants step in. In the following collation against Housman's *editio minor* (Cambridge, 1932) m stands for the source of these three manuscripts and p for the Parmensis.

3 *modo p: mundo* LGm Housman

11 *propius mundusque favet* pm: *propiusque favet mundus* LG Housman

12 *cantus p: sensus* LGm: *census* Scaliger, Housman

13 *hoc* pLG Housman: *bac* m

*tantum* pLG Housman: *tandem* m.

The variants in lines 11 and 13 entail one of three conclusions: LG have not inherited the truth in 11; M and m were different (not suspected hitherto);<sup>74</sup> or a lost intermediary, presumably the Spirensis, separated Mp from the archetype. A decision is incumbent on editors and anyone who regards M as a direct copy of the archetype.<sup>75</sup>

In April 1979 I stumbled on an unexamined manuscript of Manilius in the British Library, Add. 22808 ff. 2-11 (hereafter A).<sup>76</sup> Under the title 'M. Manilii astronomicon liber I' it presents 1.1-727 in a German hand of s. xv. The same or a contemporary hand listed on f. lv the contents of the manuscript, which are unchanged; a historical note on f. 1r written by Sifridus Schlunt, 'pronunc conventualis in Amorbach', reveals its approximate if not its precise origin.<sup>77</sup> In 1.11 and 13 A agrees with p. Would it be rash to mention that Amorbach is not 40 miles from Speyer?

Another 712 lines remain in A after p gives out, and 645 of them are in M,

he had seen no older manuscripts of Manilius. Transcripts of other texts that it contained survive in Munich; see C. di Pierro, *G.S.L.I.* 55 (1910), 9. The only reading attested in Manilius, 5.126 *ut fidum nereae dii genuere syboeten*, for which see Angelo Poliziano, *Miscellaneorum centuria secunda*, ed. V. Branca and M. Pastore Stocchi (Florence, 1972), IV 34, recurs (except for the triviality *syboten*) in Gronovius's collation of the Venetus; other manuscripts have *et fidunt* followed by something like *nerciadu*.

<sup>73</sup> F. Weigle, *Die Briefsammlung Gerberts von Reims* (Weimar, 1966), Ep. 8, 130. If Bonincontrius really received an old Casinese fragment from Panormita, it should have made more of a difference to his edition (Rome, 1484).

<sup>74</sup> See however CQ 71 (1977), 223.

<sup>75</sup> Garrod, *Manili Astronomicon liber*

II (Oxford, 1911), p. xxv; Goold, *Phoenix* 13 (1959), 96, ed. (1977), cvi.

<sup>76</sup> It is absent from 'Latin classics', but I was looking through 'Astronomy'. It now appears in the alphabetical catalogue on cards.

<sup>77</sup> The note was published by P. Lehmann, *Sitzungsber. der bayer. Akad.* (1930), 2, p. 8, who said of the manuscript 'wohl aus Amorbach'. In *Studien und Mitt. zur Gesch. des Benediktinerordens* 48 (1930), 288 = *Erforschung des Mittelalters* III (Stuttgart, 1960), p. 97 he retracted the attribution for a reason that seems to be refuted by the table of contents. Signed manuscripts of Sifridus Schlunt that Lehmann mentions include one written at Amorbach in 1448 and one at Gotthardsberg in 1466; British Library Add. 18972, *Colophons* V (1979), 17074, was written at Amorbach in 1451. The watermark in A is Briquet 12995: transalpine, mainly German, c. 1430-49.

enough, one expects, to establish the relationship of AMLG. In order to compare A as fully as possible with MLG, above all M, I supplemented the selective apparatus of Housman's *editio minor* with readings cited in vol. V of the *editio maior* (Cambridge, 1930), 115–17, in van Wageningen's edition (Leipzig, 1915), and by Ellis in *CR* 7 (1893), 310–11, 356–7. AM share these readings that Housman judges to be errors: 11, 150 *stillantis*, 179 *uno*, 214 *stellas*, 228 *omnes*, 285 *eius*, 290 *posset*, 298 *graia* (*grata* A), 358 *ne*, 365 *sidera*, 516 *terra evertentibus*, 535 *cum tecta* (*ē tecta* M), 540 *et quantis*, 544 *a om.*, 554 *tante*, 558 *fetum*, 565a *hab.*, 595 *summam*, 675 *dicitur*, 704 *subitum*. The number is not large, and none of them amounts to much; in 214 AM are closer to the truth than LG, in 285 and 358 they are no further from it, in 516 they have merely divided in the wrong place, and in 540 and 544 Housman grants that M may be right. Among readings of ALG two stand out:

252 *mutuaque in cunctas dispensat foedera partes*

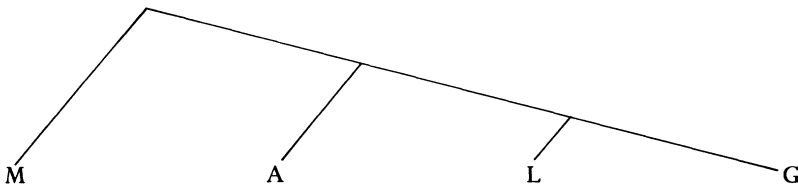
*mutuaque* Bentley: *multa quod* M: *et multa* ALG

422–3 *tum di quoque magnos*

*quaesivere deos: eguit Iove Iuppiter ipse*

*eguit Iove* Housman *ex esurcione* M: *dubitavit* ALG

Housman's brilliant conjecture in 423 must be right, and in 252 corruption of *mutuaque* to *multaque* would account for the variants. In both places A supports the dishonest reading of LG. This stemma, then?



I doubt it. Consider these readings:

84 *commentam* ~~com̄mentum~~ A: *commentum* LG: *commenta* M

88 *iter* A: *itiner* Amg. LG: *inter* M

217 *adeiacas* ~~ad~~ *inlicas* A: *adeiacas* M: *ad niliacas* L: *niliacas* L<sup>2</sup>G

380 *levamque* ALG: *levaque* A<sup>2</sup>M

544 *terris atque equore* AM: *a terris atque aequore* LG: *a terris atque ab equore* intelligi vult A sscr. *a et ab*

646 *sextam om.* AM: *hab.* Amg. LG

They point to a manuscript that could well have given rise to all the readings attested, and I see no reason why M, A, and the source of LG, should not derive independently from it. Scribes are not consistent in adopting or rejecting corrections; if the manuscript carried corrections, it may just be that the scribe of M treated the original text with more reverence than his fellows who wrote A and the source of LG.

Four times (223, 224, 236, 517) A writes *genus* for *gentes*. In all these places M has *gs* with a superscript squiggle, and at 37 A too has *gs*. If the lowest common ancestor of M and A was the archetype, then this abbreviation may yield a *terminus post quem*.<sup>78</sup>

<sup>78</sup> A. Cappelli, *Dizionario di abbreviature latine ed italiane* (Milan, <sup>4</sup> 1949), p. 154, gives 'xv p.' (= s. xv<sup>1</sup>), but E. A. Loew,

*The Beneventan script* (Oxford, 1914), p. 181, says that in Beneventan 'gs (saec. xi) is the normal form', and Doris Bains,

Although the presence of corrections in the archetype would rule out the mechanical application of a tripartite stemma, agreements between A and the most honest manuscript, M, would weigh more heavily than agreements of ALG. A supports M against LG in the following variants printed by Housman: 59 *percepta* (m), 264 *aversum*, 316 suo loco, 321 *radiat* (coniecerat Carrio), 323 *fulgent*, 332 *et*, 389 *ad*, 450 *speciem*, 614 *caelum* (coniecerat Bentley), 628 *praeterit*, 631 *aeterna* (Ven.), 685 *a*, 723 *mundus*. Other readings of interest are 332 *cingentem* (Ven.), 549 *astra ebissenis* (Bentley), 657 *quacunque* (Bentley).

In short, the Spirensis described in Parma Palat. 283 seems to have been either the archetype or a third copy of it. Who found it, and to whom the discovery was reported, is a matter for conjecture. Pietro Donato acquired the *Notitia dignitatum* from Speyer while he was presiding over the Council of Basel, but later visitors are on record.<sup>79</sup>

How many books had the Spirensis? 'Sunt libri sex' in one manuscript could be variously explained away, but there is also 'astronomicon lib. VI' in the manuscript at Lobbes. A tempting way of accounting for the six books in this manuscript is to suppose that they included 'T. Claudii Caesaris Arati phenomena', not an impossibility if these words appeared in a subscription rather than a title. The temptation should probably be resisted. The scholia and illustrations that usually accompanied Germanicus's poem would have made it quite unlike the five books of Manilius; and if it had followed Manilius in the Spirensis (and therefore in the archetype, whether or not the Spirensis was the archetype), Poggio would surely have had it copied too instead of waiting until the Siciliensis came his way in 1429.<sup>80</sup>

As I have said, a tripartite stemma does not entail that the Spirensis was the archetype: it could have been a copy. Certainly I cannot make up any story that would link Bobbio, Speyer, and Lobbes. Bobbio and Lobbes, yes: both had another rare text, Valerius Flaccus.<sup>81</sup> The analogy of a Valerius Flaccus at St Gallen might suggest a Manilius at St Gallen, occupied as it was in s. ix with astronomical studies and conveniently placed for Poggio's discovery in 1417.<sup>82</sup> Nevertheless, a recorded manuscript at Speyer deserves more attention than an unrecorded one at St Gallen, and I prefer to give it a chance of being the archetype. With luck, the three pieces of evidence that have come to light since 1967 will not be the last.<sup>83</sup>

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*A supplement to Notae Latinae* (Cambridge, 1936), pp. 17–18, cites examples from Rome Naz. Sess. 44 and 45 (s. xi), from Nonantola and Lambeth Palace 431 (s. xi, from Llanthony).

<sup>79</sup> P. Lehmann, 'Die mittelalterliche Dombibliothek zu Speyer', *Sitzungsber. der bayer. Akad.* 1934.4, pp. 23–7.

<sup>80</sup> See part II.

<sup>81</sup> Dolbeau, op. cit. (n. 28), p. 33, No. 303 and *ibid.*, 14 (1979), No. 303.

<sup>82</sup> G. Meier, *Jahrb. für Schweiz. Gesch.* 10 (1885), 112–14. J. M. Clark, *The Abbey of St Gall as a Centre of Literature and Art*

(Cambridge, 1926), p. 36, says that about AD 1000 the Irish communities of St Gallen and Liège were in close contact; Notger, bishop of Liège from 972 to 1008, had been 'prepositus monasterii Sancti Galli' according to one source, but G. Kurth, *Notger de Liège et la civilisation au x<sup>e</sup> siècle* (Paris, 1905), pp. 35–7, is surely right to suspect confusion with some other Notger.

<sup>83</sup> For help in the preparation of this article I should like to thank Bruce Barker-Benfield, Charles Burnett, Albinia de la Mare, Carlotta Griffiths, David McKie, Nigel Palmer, and Richard Rouse.