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Katharina Volk

Manilius and his
Intellectual Background

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BACKGROUND

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KATHARINA VOLK

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Preface

I first encountered Manilius nearly eleven years ago, when, at the inspired suggestion of Elaine Fantham, I read G. P. Goold's *Loeb*, wondering what the poet could possibly be talking about when talking about 'trigons'. Since then, I have come to appreciate and, indeed, love Manilius' cosmology and cosmological enthusiasm and have ended up devoting a fair amount of scholarly effort to his poem. After a number of articles and a chapter in my *Poetics of Latin Didactic* (Oxford 2002), it seemed to me that there was still scope for a whole book on Manilius, a classical Latin poet who has not yet been the subject of an English-language monograph. In a departure from my previous work, I envisaged this book as not so much a literary interpretation as a cultural study; to realize this goal, I have endeavoured over the years to familiarize myself with the manifold intellectual traditions that inform the *Astronomica*, immersing myself in astronomy, astrology, political history, poetics, and philosophy. That I have been able to do so is in large part thanks to the help of many colleagues who have generously shared with me their own expertise in various fields and have enriched my understanding of the poet and his background. Josèphe-Henriette Abry, David Blank, Alan Cameron, Ted Champlin, Carmela Franklin, Marc Domingo Gygax, Christine Hehle, Sarah Iles Johnston, John Matthews, Martin Mulsow, David Ratzan, and Francesca Rochberg kindly answered queries or gave useful pointers. The participants in a graduate seminar on Manilius at Columbia in the spring of 2007 (Marvin Deckoff, Patrick Glauthier, Tobias Myers, Kristin Robbins, and James Uden) provided stimulating discussion as well as welcome proof that I am not the only one to find Manilius fun, while audiences at Brooklyn College, Colgate, Columbia, Oxford, Princeton, St Andrews, and Yale offered helpful comments and suggestions. I am especially indebted to Bob Kaster, Daryn Lehoux, Katja Vogt, Gareth Williams, and Jim Zetzel, who read all or parts of the typescript and gave me much-appreciated feedback. Of course, all mistakes remain my own.

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K.V.

New York
March 2008

Contents

<i>List of Figures</i>	xi
<i>Abbreviations</i>	xii
1. The Mystery of Manilius	1
1.1. Who Was Marcus Manilius?	1
1.2. A Contextual Approach	6
2. Portrait of the Universe	14
2.1. The Idea of the <i>kosmos</i>	18
2.2. The Two-Sphere Universe	23
2.3. The World According to Manilius (<i>Astronomica</i> 1)	29
2.4. The Puzzle of the Planets I	48
3. The Rules of Fate	58
3.1. What is Astrology and How Does it Work?	59
3.2. A ‘Self-Styled Ancient Art’	67
3.3. The Astrologer’s Circles (<i>Astronomica</i> 2 and 3)	76
3.4. <i>Mores et studia</i> (<i>Astronomica</i> 4 and 5)	95
3.5. The Puzzle of the Planets II	116
4. Horoscopes and Emperors	127
4.1. The Rise of Astrology at Rome	127
4.2. Manilius’ Emperor(s) and the Date of the <i>Astronomica</i>	137
4.3. Roman Manilius	162
5. Teaching and Poetry	174
5.1. What Do We Learn from the <i>Astronomica</i> ?	174
5.2. <i>Imitatio</i> and <i>aemulatio</i>	182
5.3. Transcending Tradition	197

6. Making Sense of the World	216
6.1. Man and the Cosmic God	217
6.2. Possible Sources for Manilius' World View	226
6.3. Cosmic Tensions	251
7. The Universe and Us	259
Appendix: Outline of the <i>Astronomica</i>	266
<i>Glossary of Astronomical and Astrological Terms</i>	271
<i>Bibliography</i>	275
<i>Passages Cited</i>	299
<i>Index</i>	310

List of Figures

Except for Figure 6, all illustrations have been executed by Monica Hellström.

1. The two-sphere universe	26
2. Stars of the northern hemisphere	36
3. Stars of the southern hemisphere	38
4. The celestial circles	41
5. The four <i>cardines</i>	78
6. Papyrus horoscope (<i>P Oxy.</i> 235; early 1st c. BC)	79
7. The twelve places	80
8. Aspect: trigons	83
9. Aspect: squares	84
10. Aspect: hexagons	85
11. Aspect: opposition	86
12. The Gemma Augustea	134

Abbreviations

References to classical texts typically follow the style of abbreviations of the *Oxford Classical Dictionary* (3rd edn.).

<i>A&A</i>	<i>Antike und Abendland</i>
<i>A&R</i>	<i>Atene e Roma</i>
<i>AC</i>	<i>L'Antiquité classique</i>
<i>AFLN</i>	<i>Annali della Facoltà di Lettere e Filosofia dell'Università di Napoli</i>
<i>AJP</i>	<i>American Journal of Philology</i>
<i>AncSoc</i>	<i>Ancient Society</i>
<i>ANRW</i>	W. Haase and H. Temporini (eds.) (1972–). <i>Aufstieg und Niedergang der römischen Welt: Geschichte und Kultur Roms im Spiegel der neueren Forschung</i> . Berlin: De Gruyter.
<i>BAB</i>	<i>Bulletin de la Classe des Lettres de l'Académie Royale de Belgique</i>
<i>BMCR</i>	<i>Bryn Mawr Classical Review</i>
<i>CIG</i>	A. Boeckh <i>et al.</i> (eds.) (1828–77). <i>Corpus Inscriptionum Graecarum</i> . 5 vols. Berlin: Königlich Preußische Akademie der Wissenschaften.
<i>CIL</i>	<i>Corpus Inscriptionum Latinarum</i> (1863–)
<i>CP</i>	<i>Classical Philology</i>
<i>CQ</i>	<i>Classical Quarterly</i>
<i>CR</i>	<i>Classical Review</i>
<i>CronErc</i>	<i>Cronache ercolanesi</i>
<i>DK</i>	H. Diels and W. Kranz (1951–2). <i>Fragmente der Vorsokratiker</i> . 3 vols. 6th edn. Berlin: Weidmann.
<i>EphK</i>	<i>Egyetemes Philologiai Közlöny</i>
<i>FPL</i>	W. Morel, K. Büchner, and J. Blänsdorf (1995). <i>Fragmenta Poetarum Latinorum Epicorum et Lyricorum</i> . 3rd edn. Stuttgart: Teubner.

<i>GIF</i>	<i>Giornale italiano di filologia</i>
<i>ICS</i>	<i>Illinois Classical Studies</i>
<i>JAOS</i>	<i>Journal of the American Oriental Society</i>
<i>JClPh</i>	<i>Jahrbücher für classische Philologie</i>
<i>JNES</i>	<i>Journal of Near Eastern Studies</i>
<i>JNG</i>	<i>Jahrbuch für Numismatik und Geldgeschichte</i>
<i>JPh</i>	<i>Journal of Philosophy</i>
<i>JRS</i>	<i>Journal of Roman Studies</i>
<i>LICS</i>	<i>Leeds International Classical Studies</i>
<i>LS</i>	A. A. Long and D. N. Sedley (1987). <i>The Hellenistic Philosophers</i> , 2 vols. Cambridge: Cambridge University Press.
<i>LSJ</i>	H. G. Liddell, R. Scott, and H. S. Jones (eds.) (1996). <i>A Greek English Lexicon with a Revised Supplement</i> . 9th edn. Oxford: Oxford University Press.
<i>MAAR</i>	<i>Memoirs of the American Academy in Rome</i>
<i>MC</i>	<i>Il mondo classico</i>
<i>MD</i>	<i>Materiali e discussioni per l'analisi dei testi classici</i>
<i>MDAI(R)</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung</i>
<i>Neuer Pauly</i>	H. Cancik and H. Schneider (eds.) (1996–2003). <i>Der Neuer Pauly: Enzyklopädie der Antike</i> . 16 vols. Stuttgart: Metzler.
<i>OCD</i>	S. Hornblower and A. Spawforth (eds.) (1996). <i>The Oxford Classical Dictionary</i> . 3rd edn. Oxford: Oxford University Press.
<i>OLD</i>	P. G. W. Glare (ed.) (1983). <i>Oxford Latin Dictionary</i> . Oxford: Oxford University Press.
<i>OSAPh</i>	<i>Oxford Studies in Ancient Philosophy</i>
<i>PACA</i>	<i>Proceedings of the African Classical Association</i>
<i>Pauly–Wissowa</i>	A. F. von Pauly, G. Wissowa, and W. Kroll (eds.) (1894–1982). <i>Real-Encyclopädie der classischen Altertumswissenschaft</i> . 24 vols. Stuttgart and Munich: Metzler/Druckermüller.

<i>PCPS</i>	<i>Proceedings of the Cambridge Philological Society</i>
<i>PL</i>	J.-P. Migne (ed.) (1844–91). <i>Patrologiae Cursus Completus: Series Latina</i> . 221 vols. Paris: Garnieri.
<i>RBPb</i>	<i>Revue belge de philologie et d'histoire</i>
<i>REG</i>	<i>Revue des études grecques</i>
<i>REL</i>	<i>Revue des études latines</i>
<i>RFIC</i>	<i>Rivista di filologia e di istruzione classica</i>
<i>RbM</i>	<i>Rheinisches Museum</i>
<i>SCO</i>	<i>Studi classici e orientali</i>
<i>SicGymn</i>	<i>Siculorum gymnasium</i>
<i>SH</i>	H. Lloyd-Jones and P. Parsons (1983). <i>Supplementum Hellenisticum</i> . Berlin: De Gruyter.
<i>SIFC</i>	<i>Studi italiani di filologia classica</i>
<i>SMSR</i>	<i>Studi e materiali di storia delle religioni</i>
<i>SVF</i>	H. F. A. von Arnim (1903–24). <i>Stoicorum Veterum Fragmenta</i> . 4 vols. Leipzig: Teubner.
<i>SyllClass</i>	<i>Syllecta Classica</i>
<i>TAPA</i>	<i>Transactions and Proceedings of the American Philological Association</i>
<i>TLL</i>	<i>Thesaurus Linguae Latinae</i> (1900–)
<i>WS</i>	<i>Wiener Studien</i>
<i>ZPE</i>	<i>Zeitschrift für Papyrologie und Epigraphik</i>

Chapter 1

The Mystery of Manilius

1.1. WHO WAS MARCUS MANILIUS?

In the second decade of the first century AD, a Latin poet probably called Marcus Manilius wrote a didactic poem on astrology entitled *Astronomica*. The work, composed in hexameters and in a difficult, twisted, and occasionally strangely beautiful Latin, has five books. The first describes the universe, in particular the sphere of constellations that surrounds the earth; the second and third deal with the zodiac and the manifold ways in which the position of its signs at any given moment can be calculated and made meaningful; the fourth discusses the influence of the zodiacal signs on human beings; and the fifth treats the astrological significance of constellations outside the zodiac. All this is interspersed with reflections on the divine nature of the cosmos, the unalterable rule of fate, and Manilius' own mission as a poet.

Not a single contemporary or later Roman writer mentions Manilius. His work must have found at least some readers, since we can discern echoes of it in such authors as Lucan, Petronius, and Juvenal; however, not even Firmicus Maternus, a fourth-century astrological writer who drew heavily on Manilius, deemed it necessary to name and credit his model. As far as our ancient sources are concerned, Manilius might as well not have existed.¹

In 988, though, somebody finally showed awareness of an author called something like Manilius. The scholar and cleric Gerbert of Aurillac (later to become Pope Sylvester II), writing to a correspondent at the Italian monastery of Bobbio, asked for a copy of a work that he describes as 'M. Manilius (v.l. Manlius) de astrologia' (Letter 130, *PL*

¹ On the reception of Manilius in antiquity, see van Wageningen 1928: 1130–1, as well as Schwemmler 1916 (on Lucan), Eriksson 1956: 71–8 (on Petronius), and Costanza 1984 (on Calpurnius Siculus and Tertullian). On the relationship of Manilius and Germanicus, see 5.2, fn. 29 below; on Firmicus, see 3.4, fn. 102 below; and on the appearance of *Astr.* 4.16 in inscriptions, see 3.1, fn. 10 below.

139.233 Migne). It is likely that Gerbert was referring to the poem of our Manilius (even though he himself possibly thought that its author was the better-known fifth-century philosophical writer Boethius, whose full name was Anicius Manlius Severinus Boethius), and, if he was, we can conclude that in the tenth century the famous library of Bobbio contained a copy of the *Astronomica*.²

We next hear about Manilius in 1417, when the Italian humanist Poggio Bracciolini attended the Council of Constance and used this opportunity to go manuscript hunting in the libraries of Germany, France, and Switzerland. Among the lost works from Latin antiquity that Poggio was able to recover on this occasion was a manuscript of the *Astronomica*, which he found in an undisclosed location and had copied by a less-than-talented scribe (clearly exasperated, Poggio described him as 'ignorantissimus omnium viventium'³). This fifteenth-century copy survives today in the National Library at Madrid; the original manuscript found by Poggio is lost.

Once Manilius had thus been rediscovered (ultimately, additional medieval manuscripts surfaced as well), his text caught the attention of scholars and became the subject of intensive editorial and commentary activity, no doubt fuelled by the period's renewed interest in both ancient literature and astrology.⁴ Between the first printed edition by the famous astronomer Regiomontanus in c.1473 and the publication of Housman's edition of Book 1, Manilius was edited dozens of times,

² On Gerbert, the presumed Bobbio codex of Manilius, and the likely confusion with Boethius (as seen in Gerbert, Letter 8, *PL* 139.203 Migne and a 10th-century Bobbio library catalogue (on which see now Genest 1996)), see Goold 1992: p. cviii and 1998: pp. v–vi and Maranini 1994: 77–90; cf. also Gain 1970. The suggestion of Riché and Callu 1993: 2.321 (cf. Courcelle 1943: 124 + n. 3) that Gerbert was instead referring to a work by Flavius Manlius (or Mallius) Theodorus (4th/5th c. AD) has nothing to recommend it. Note that the idea that Manlius (whose interest in astronomy is mentioned by Claudian, *Panegyricus dictus Manlio Theodoro consuli* 274–5) was himself the author of the *Astronomica* enjoyed a brief vogue in the 17th century, having been first suggested by Gevaerts (C. Gevaerts) in 1616 (see Maranini 1994: 275–9).

³ The quotation comes from a letter of Poggio to Francesco Barbaro of late 1417 or early 1418, which accompanied the described faulty copy of the *Astronomica* (for the text of the letter, see Clark 1899: 125; English translation in Gordan 1974: 210–13); a letter from Barbaro to Poggio of 6 July 1417 (Gordan 1974: 196–203) alludes already to the discovery, which may have taken place in early 1417. Generally on Poggio and Manilius, see Flores 1980: 33–44 and Maranini 1994: 117–21.

⁴ On the manuscript tradition of Manilius, see Reeve 1983 and Goold 1998: pp. v–xxv, as well as, for a different account, Flores 1993 and Flores in Feraboli, Flores, and Scarcia 1996–2001: 1, pp. lxxvii–lxxix (on the divergences between Reeve and Flores, see also Maranini 1994: 319–24). On the Renaissance reception of Manilius, see Hübner 1980 and Maranini 1994.

including by some of the most famous philologists of their respective periods, notably Joseph Scaliger (1579, 1599/1600, and 1655) and Richard Bentley (1739).⁵

In 1903, finally, the scholar and poet A. E. Housman published, at his own expense, the first volume of a critical edition of Manilius (work on this project would occupy him for nearly another three decades: the final volume came out in 1930). The work is famous—some might say, notorious—for its bold handling of the text, its incisive commentary, and its merciless (and often very amusing) invective against other scholars. The critic prefaced the edition with a dedicatory Latin poem of his own, addressed to his friend Moses J. Jackson, for whom the closeted homosexual Housman harboured a lifelong passion.⁶ In this beautiful and gloomy elegy, the poet contrasts the regular and eternal movement of the stars not only with his and Jackson's own mortality, but also with the sad fate of Manilius himself: the Latin poet believed that he had achieved immortality through his verse, but in reality, his poem hardly made it to the present day, arriving in our time battered and damaged, like a shipwreck ('[carmina] naufraga', 13). His ambitions thus shattered, Manilius provides an 'all-too-obvious example' ('clara nimis . . . exempla', 9) of how—thus Housman, bitterly—'no man ever ought to trust the gods' ('ne quis forte deis fidere uellet homo', 10). And indeed, despite Housman's editorial efforts and the work that at least some scholars have dedicated to the poet since, Manilius today plays only a marginal role in classical studies and is all but unknown to the general public.

These are a few scenes from the history of the reception that Manilius' poem has encountered in the course of the last two millennia. But who was Manilius? We do not know. In addition to the poet's name, all we have are a number of clues in the *Astronomica* itself that give some indication as to when the poem was written, but even these are not uncontroversial.⁷ A *terminus post quem* is provided by 1.896–903, where

⁵ Editions of Manilius are listed in Maranini 1994: 350–64. On Scaliger, see Grafton 1983–93: 1.180–226 and 2.437–59; on Bentley, see Haugen 2001: 257–74.

⁶ On the poem, see Harrison 2002. Housman's love for Jackson is the subject of Tom Stoppard's successful play *The Invention of Love* of 1997.

⁷ The name M. Manilius itself is not well attested, appearing only in Poggio's letter about the codex he discovered (see fn. 3 above), as well as, in various permutations, in the Madrid manuscript (M) and others that derive from it (cf. the section 'De titulis et capitulis' in Goold 1998: pp. xii–xv, as well as the discussion in Maranini 1994: 75–114). Unless, however, one wishes to assume another conflation with Boethius or a hypothetical ascription based on the Pliny passage discussed immediately below in the text (note, though, that neither hypothesis accounts for the *praenomen* Marcus), it seems most reasonable to assume that the name is authentic. For the suggestion that 'Manilius' was really called Navigius Fronto, see Thielscher 1956: 372.

Manilius mentions the disastrous defeat in AD 9 of the Roman army under Varus at Teutoburg Forest. In addition, there are a whole number of allusions to the emperor, who, however, is typically not named but referred to simply as *Caesar* (in the few cases where there is a specific mention of Augustus, it is debatable whether Manilius is talking about Augustus as alive or as already dead and deified). Scholars therefore differ over the identity of the living emperor in the *Astronomica*: he may be Augustus; he may be Tiberius; or perhaps Manilius began his poem during the rule of the former and finished it only once his successor had come into power. Whatever the case may be, the *Astronomica* can be dated roughly to the second decade of the first century AD.

Manilius provides no information about himself in his poem, and, as mentioned above, we have almost no contemporary or later testimonies to his person and life. There is, however, one tantalizing exception. The elder Pliny—in the context of talking about a kind of chalk that was used, among other things, to colour the feet of slaves put up for sale—mentions an astrological writer Manilius Antiochus, who, like other well-known intellectuals, first came to Rome as a slave:

talemque Publilium Lochium, mimicae scaenae conditorem, et astrologiae consobrinum eius Manilium Antiochum, idem grammaticae Staberium Erotem eadem naue aductos uidere proaui. (*HN* 35.199)

Our ancestors beheld in this state [i.e., with feet coloured by *creta argentaria*] Publilius Lochius, the mime writer, and his cousin Manilius Antiochus, the astrological writer, and likewise Staberius Eros, the grammatical writer, who had all arrived in the same boat.

Here we have a Manilius, *astrologiae conditor*—but, unfortunately, the date is all wrong. Pliny's Manilius is the contemporary of the mime author Publilius Syrus and the grammarian Staberius Eros, both of whom were active in the early to mid-first century BC. Our Manilius, as we have seen, cannot possibly belong to this generation.

Pliny's note thus remains maddeningly puzzling. Perhaps the author is indeed talking about the poet of the *Astronomica* and is simply mistaken about the date. Alternatively, perhaps there was another, older, astrological writer Manilius, who may or may not be a relation (the father?) of our man. We shall never know.⁸ Scholars have hypothesized

⁸ Discussions of Pliny's testimony, some of them highly speculative, include Goold 1961: 171, Herrmann 1962, Hamblenne 1984, and Scarcia in Feraboli, Flores, and Scarcia 1996–2001: 1, pp. xix–xxiii.

that Manilius was indeed a Greek-speaking foreigner (often basing their argument on the poet's supposedly inferior Latin—a dangerously subjective criterion), which would agree with Pliny's claim that he came from Syria (as seen from the supposed fact that he was Publilius' cousin, as well as from the name Antiochus).⁹ His possible status as a freedman would fit in well with the fact that other leading Greek intellectuals at Rome, such as Parthenius or Hyginus, were also former slaves. Ultimately, though, given the mix-up over the date, Pliny's account cannot be treated as reliable evidence, and it is just as likely that Manilius was instead a born and bred free Roman citizen.

If nothing can be known about the man Manilius, at least we have his poem. As it happens, the *Astronomica* is our first extant extensive and coherent treatment of astrology. However, it is unclear whether the work as we have it is complete. As Housman observed (1903–30: 1.lxxii), it is impossible to cast a horoscope based on the information given in the five books; crucially, what is missing is an extended discussion of the planets, which is an all the more striking omission given that Manilius repeatedly announces such a treatment. Similarly, at the beginning of Book 5, the poet declares that he will sing of the risings and settings of extrazodiacal constellations, but, in what follows, only the risings are discussed.

The matter is complicated by the fact that between lines 709 and 710 of Book 5 a number of lines appear to be missing: the text jumps abruptly from the topic of the extrazodiacal risings to that of stellar magnitudes. This raises interesting questions. How much has been lost? And did this lacuna perhaps contain either the missing extrazodiacal settings or the promised discussion of the planets?

As a result, the possibilities for speculation are endless. Perhaps Manilius just never got around to treating everything he had meant to discuss and the *Astronomica* is unfinished. On the other hand, perhaps the work is complete (except for the lacuna in Book 5, which may be very small), in which case Manilius, either on purpose or out of negligence, simply failed to talk about extrazodiacal settings and planets. Otherwise, as already mentioned, one or both topics might have been treated in the lacuna (which may be very large and extend beyond a book break). Finally, it is always possible that entire books (discussing extrazodiacal settings, planets, and who knows what else) were lost in the hazardous process of textual transmission.

⁹ On the idea of Manilius as a foreigner, see 4.3 below, with references.

All we are left with, therefore, is a text, complete or not, by an author about whom we know nothing. How, then, can we read this poem, make sense of a text 2,000 years old, and understand what is going on in a work of literature written in a long-dead language for people who lived in a world that was quite unlike our own?

1.2. A CONTEXTUAL APPROACH

Rather than feel hampered by our lack of knowledge about Manilius, I suggest that we regard the absence of all biographical information as something of a lucky chance. However much an author's personal experience may inform his or her writing, it is a tricky business to connect what is known about a writer's life with what can be read in his or her work—whether one is trying to draw conclusions about the work based on the life or vice versa. For this reason, literary scholars, including classicists, have in recent decades largely avoided biographical readings, concentrating on the text rather than the author, and abandoning the ambition of unearthing a writer's intention in composing a particular work.¹⁰ Still, as long as some biographical information, however doubtful, is available, there is always the temptation to try to uncover correlations between life and art. Was Catullus really in love with 'Lesbia', and was she the notorious Clodia of Cicero's *Pro Caelio*? Was Vergil gay? And why was Ovid sent into exile? We would love to know the answers to these questions, and even though it is clear that we never will, it is difficult to avoid speculation altogether. In the case of Manilius, however, there is no such temptation: we have lost any trace of the man and are thus stuck, for better or for worse, with his text alone.¹¹

Not knowing anything about the immediate circumstances of the *Astronomica*'s composition thus affords us a unique opportunity to examine the poem on its own or, to use a standard phrase, to let the text 'speak for itself'. However, we cannot presume that it will simply speak to us the way it did to its first readers, that it will effortlessly transcend the space and time that separate us from its original context. If

¹⁰ Cf. Volk 2002: 10–12 and esp. 2005a: 84–7.

¹¹ Given the complete lack of information about the historical Manilius (who does therefore not come into focus as a distinct character), I shall not in what follows draw any terminological distinction between Manilius the author and his intra-textual persona (the first-person speaker of the *Astronomica*) but shall refer to both of them indiscriminately as 'Manilius'; my practice will thus be different from that adopted in Volk 2002.

we look at the *Astronomica* in isolation, treating it as a self-contained, timeless work of art, we risk missing important layers of meaning, layers that will become apparent only once we put ourselves into the frame of mind (as far as this is possible) of an educated Roman of the early first century AD. For example, in order to make sense of some of the poem's cosmological passages, we need to know how Manilius and his contemporaries explained the movements of the heavenly bodies, how they conceived of their own place in the universe, and how they were accustomed to talk about these things.

What I therefore propose to do in this book is examine the *Astronomica* against its intellectual background—that is, see how it fits in with what we know about ways of thinking and speaking that were current in Manilius' time. Intellectual life in the early Imperial age was characterized by a wide variety of interests, concerns, theories, and fashions, and, as a child of his time, the poet could not help being influenced by a whole number of them. Given in addition the 'interdisciplinary' nature of astrology (an amalgam of different fields of study, belief systems, and social practices) and the eclecticism that is, as will become apparent in the course of the book, one of Manilius' most striking characteristics, the *Astronomica* presents particularly promising ground for a contextualized reading. My aim in what follows is to explore the diversity of traditions that have gone into shaping the poem, the multitude of discourses—scientific, political, literary, and philosophical—in which Manilius' text participates. Such knowledge of the *Astronomica's* multifaceted background will help illuminate what is going on in the text, thereby making it accessible to us readers from a different age. Conversely, studying the poem may well afford us additional insights into the cultural imagination of Manilius' time by showing what facts were known to, and what thoughts could be thought by, an educated member of Roman society in the early Imperial period.¹² Ideally, then, the interpretative approach just outlined will enhance our appreciation of both Manilius himself and his wider intellectual background.

In the course of the book, I examine, chapter by chapter, what I perceive to be the major fields of influence on Manilius' work. As a poem on astrology, the *Astronomica* is obviously concerned with

¹² Cf. the studies of Beagon 1992 and Murphy 2004, who both use the *Natural History* of Pliny the Elder to reconstruct aspects of the world view of the Roman elite of the first century AD.

expounding the relationship between celestial phenomena and human life, but, before doing so, it has to establish what the cosmos actually looks like and how it functions. A part of the work, most notably Book 1, is thus dedicated to what we would call astronomy or cosmology, a topic that I treat in my Chapter 2, where I discuss how the universe described by Manilius relates to contemporary scientific theories. Astrology proper is the subject of my Chapter 3, which outlines the basic tenets of this discipline, as well as Manilius' particular take on it. Chapter 4 concerns itself with the historical and political context of the *Astronomica's* composition: in the early Empire, astrology was not only extremely popular, but also highly politicized, and both Augustus and Tiberius used astrology to bolster their rule. I shall examine Manilius' poem against this background, paying special attention to his references to the emperor(s) and revisiting the thorny question of the *Astronomica's* precise date.

In Chapter 5, then, I raise the question of the work's genre: what does it mean to be a 'didactic poem', how does the *Astronomica* fit into literary history, and, critically, is it actually meant to teach anybody anything? This discussion leads to an examination of the *Astronomica* as a work of literature, Manilius' self-representation as a poet, and his relationship to his literary predecessors, especially Vergil, Aratus, and Lucretius. Since Manilius depicts both his astrological subject matter and his own mission as a poet in strongly philosophical and religious tones, the last main chapter of the book (Chapter 6) is dedicated to an exploration of the larger belief systems and world views that inform his work, including Stoicism and Platonism, as well as such more 'mystical' movements as Hermetism and Pythagoreanism. Finally, I sum up my insights in the concluding Chapter 7.

Before we embark on such a contextualized reading of the *Astronomica*, there are three larger methodological issues that need to be addressed. First, I stress that the interpretative approach just outlined, with its attention to the work's intellectual background, does not imply detailed *Quellenforschung* or the painstaking teasing-out of intertextual relations between Manilius and his individual literary predecessors. It goes without saying that, in composing his poem, the Roman author must have made use of a number of specific models, ranging from technical prose treatises to poetic texts. Valuable work has been done on how Manilius uses particular intertexts, and I shall from time to time throughout the book (as well as particularly in my discussion in 5.2) comment on such specific instances of literary and intellectual interdependence. However, my

interest is not in determining, on a micro-level, points of contact between individual texts but rather in tracing, on a macro-level, the development of larger discourses—that is, ways of thinking and talking about the world. More than anything, I intend for this study to be a contribution to the history of ideas, and I shall thus be concerned primarily with demonstrating that Manilius was, for example, familiar with a particular concept X, which happens to be found also in authors Y and Z, rather than with determining whether he got this concept specifically from Y or from Z or from someone else entirely.

My hope is that with this focus on the ‘larger picture’ I shall be able to avoid certain pitfalls and aporias that come with the detailed tracing of literary lineage. While the study of intertextuality has in recent years enjoyed particular popularity within the discipline of classics and has contributed greatly to our understanding especially of Latin poetry, its pursuit is occasionally marred by a certain amount of arbitrariness. (When is an allusion really an allusion?) Since, furthermore, our perspective on ancient literature is extremely limited, owing to the massive losses incurred in the process of textual transmission, the search for specific poetic models can be successful only up to a point: for example, we are well equipped to spot Manilius’ debts to Lucretius, but we will never be able to tell how much use, if any, he made of Ovid’s lost translation of Aratus.

The same problem obtains, to a much more serious extent, in *Quellenforschung*, an approach that (unlike the study of intertextuality) is now quite unpopular but played a major role in Manilian studies in the late nineteenth and early twentieth centuries. While we actually possess a large number of Manilius’ poetic models, his scientific sources are more or less completely lost to us, and their reconstruction thus takes a great amount of ingenuity. As a result, works of *Quellenforschung*, though often extremely learned, can strike the reader as highly speculative and resting on untested assumptions;¹³ this is especially true when the source ultimately reconstructed is either a work known to have existed that is now lost or one whose very existence is inferred solely on the basis of the texts that presumably depend on it.

Finally, both the study of intertextuality and source criticism are, by their very nature, concerned with the individual—the specific intertext,

¹³ Thus, e.g., Blum 1934 reconstructs the source of Manilius’ first book based solely on three short doxographical passages (1.122–46, 718–61, 817–76), unquestioningly positing that the rest of the book must be derived from the same model.

the particular source—and thus tend to lose sight of the general—the literary topos, the commonplace idea. However, Roman intellectual culture, having inherited the vast learning of the Hellenistic Greeks, is characterized more than anything by syncretism, by the reception, combination, and refiguring of earlier ideas. Thus, for example, by the time of Manilius, the theory that the earth is spherical had been around for so long and gone through so many permutations and made its appearance in so many philosophical treatises, textbooks, and works of poetry that it no longer makes sense to say that the author got the idea specifically from Aristotle or from an epitome of Posidonius or from some other individual source. This aspect of the time period with which I am concerned presents a further reason why I shall largely eschew the sharp focus found in studies of intertextuality and *Quellenforschung* and employ instead a soft focus, intent on capturing not the minute structures but the general outlines of this particular chapter of intellectual history. The disadvantage, of course, is that my picture may well turn out blurry and miss important details; the advantage, in my opinion, is that it will indeed be a ‘larger picture’.

The second methodological issue raised by my approach is the danger of circularity. I suggest that studying Manilius’ intellectual background will help us understand the poem; at the same time, I shall use the poem as evidence for this same intellectual background. This is the old problem of the Hermeneutic Circle, and I am afraid that, in this kind of enquiry, there is no real way not to engage in some measure of circular reasoning if one wishes to draw any conclusions at all. Since, however, as just discussed, what I am aiming for is but a larger picture in soft focus and I shall be talking about general trends rather than specific cases of dependence, I may be able to avoid the more blatant cases of circularity. The main condition for my contextual approach to work is for Manilius to be, at least to a certain extent, typical of his time. If, rather than reflecting ideas found elsewhere, the *Astronomica* should turn out to be completely idiosyncratic—if Manilius is an original genius or a lone crackpot—then, obviously, studying the mainstream culture of his time will prove rather less illuminating and may, in fact, distort our perception of both the poet and his age.

Now, I do in fact believe that Manilius shows a certain originality as a poet, albeit within the circumscribed frame of the literary conventions of his time. His originality in the field of astrology is much harder to assess, given the dearth of earlier sources. Compared to later astrological writings, some aspects of Manilius’ astrological system are surprising,

but there is no way of knowing whether he made them up himself. On the whole, though, I am working on the assumption that Manilius was not an astronomer or astrologer himself, but in the first place a poet, and that his knowledge (though not necessarily his presentation) of heavenly phenomena is thus derivative. This would explain the numerous scientific mistakes he makes in the course of the poem, such as, to take just one example, his blatantly erroneous claim that lunar eclipses are not visible everywhere on earth at the same time, but are first observed in the east before then moving west (1.221–35; on this passage, see further 2.3). That ancient readers did not expect didactic poets to be specialists in the technical subjects about which they were writing is clear from Cicero's remarks about the Hellenistic authors Aratus and Nicander:

constat inter doctos hominem ignarum astrologiae ornatissimis atque optimis uersibus Aratum de caelo stellisque dixisse... de rebus rusticis hominem ab agro remotissimum Nicandrum Colophonium poetica quadam facultate, non rustica, scripsisse praeclare. (*De or.* 1.69; cf. also *Rep.* 1.22)

Educated people agree that Aratus, a man ignorant of astronomy, wrote about heaven and the stars in most ornate and excellent verse... and that Nicander of Colophon, a man with no connection to the countryside whatsoever, wrote extremely well about agriculture, with a certain poetic, not rustic, talent.

Manilius, too, is likely to have been not an original scientist, but rather, just like Aratus, and Nicander, a *poeta doctus*, 'learned poet'—that is, a writer well educated and well versed in the various fields of knowledge of his day, especially, of course, in the ones that had a bearing on his subject. Such a learned amateur can be expected to reflect the mainstream culture of his time rather more faithfully than a specialist intent on innovation, and I am therefore, on the whole, rather optimistic about the possibility of viewing the *Astronomica*, for all its idiosyncrasies, as representative of its time.

The third and final methodological issue with my approach has to do with its scope. As outlined above, my assumption is that Manilius' work stands in a whole number of traditions and that, in order to appreciate the *Astronomica*, it is necessary to pay attention not only to its astronomical and astrological subject matter, but also to the political situation at its genesis, its genre, poetics, and philosophical affiliation. The interdisciplinary nature of my study raises a number of practical problems, not the least that I am by no means at home in all the fields just mentioned. Primarily a specialist in Latin poetry, I feel reasonably competent also when discussing ancient philosophy and the history of

the early Empire; I have not, however, found the scientific content of Manilius' poem easily accessible, and I can only hope that I have mastered it to the extent of having become myself enough of a learned amateur to enter into a dialogue with my fellow-layman Manilius.

However dauntingly diverse the intellectual traditions behind the *Astronomica* are, the poem—unlike my book—does not deal with them individually but combines them into a unified piece of art. For Manilius, cosmology, astrology, politics, poetry, and philosophy are all related, and one of the great fascinations of his poem is precisely the stunning way in which it presents a (more or less—see below) coherent world view made up of so many different constituent elements. For me, however, this poses the expository problem of how to break down Manilius' poem into the intellectual categories that I have devised. Many ideas in the work can be easily classified as astrological or political or poetic, but many others cannot. For example, the belief that the universe is well ordered and governed by unalterable laws obviously plays a role in astronomy; it is a crucial underlying assumption of astrology; it is a central philosophical concept; and it is important for Manilius' poetics, since the poet regards his poem as a microcosm that is ordered in the same way and follows the same rules as the macrocosm. What this means is that, unfortunately, I shall not be able to avoid a certain amount of repetition when examining Manilius' poem from a variety of different points of view, one after the other. Hopefully, the tediousness of such a procedure will be outweighed by the gained appreciation of the intricate ways in which the poet has managed to interweave so many different strands in his complex creation.

If Manilius thus largely succeeds in wearing many different hats at the same time, he occasionally fails to reconcile the multiple roles he is playing and lapses into self-contradiction. Thus, for example, in his didactic mode, the poet assures his students that the cosmos reveals itself to everyone and that, if they persevere in their studies, they will reap the fruit of their labours; elsewhere, in a more mystical spirit, he declares that knowledge of the universe is granted only to the chosen few. Conceptual tensions of this kind are found throughout the *Astronomica* and can be frustrating to readers who are seeking unity of thought or are just attempting to understand what Manilius' take on a particular issue is. It would be easy, of course, to view these instances as 'howlers' characteristic of a second-rate poet and to come to the conclusion that Manilius simply was not much of a thinker. By contrast, I propose that what appears to us as a sloppy lack of coherence is at least in part the

product of a different intellectual *modus operandi*, a way of presenting thought in speech that is typical of Manilius. Elsewhere I have termed this approach the have-one's-cake-and-eat-it-too principle (Volk 2002: 208–9): thus, for example, Manilius wishes to be *both* a caring teacher and an elitist *mystagetes*. Note that neither of these roles is original to the poet; they come, ready-made, with their respective intellectual traditions, and Manilius simply takes them on, at different points in his poem, whenever it fits his purpose.¹⁴

The have-one's-cake-and-eat-it-too principle is the willingness to participate in different discourses—ways of thinking and speaking about the world—without fear of or concern for self-contradiction. Given this procedure, it becomes even more important to understand the intellectual background of the *Astronomica*, since only by this approach can we comprehend how Manilius' self-contradictions come about. In what follows, I shall thus not try to smooth over perceived instances of incoherence, but rather attempt to appreciate the learned poet's manifold uses of the great store of facts, philosophies, ideas, motifs, and metaphors that he has inherited. This way, perhaps, the ancient poem will come to life, even though its author to us is nothing but a name.¹⁵

¹⁴ Inconsistency (or what is perceived as such) in ancient texts has been the subject of much recent scholarship; see esp. O'Hara 2005 and 2007, with references. There is a tendency in such criticism to view self-contradictions as features consciously engineered by the author, often with the presumed purpose of pointing to ambiguities and tensions inherent in the text's subject matter. As will become clear from my treatment in this book, and as I hope to discuss in greater detail in a separate publication, I view Manilius as a less self-conscious producer of self-contradictions, someone who is far more tolerant of inconsistency than many modern readers (tolerant in the sense, not of putting up with something odd, but of not considering it odd in the first place). When, on occasion, the poem's inconsistencies appear to point to underlying tensions in the poet's world view, I tend to assume that Manilius himself is largely unaware of the resulting—and very revealing—ambiguities and is not subverting his own text on purpose. Since authorial intention is unrecoverable, however, I am well aware that the opposite interpretation is likewise possible.

¹⁵ Given the scope and purpose of this book, but little space is given to questions of textual criticism. I am well aware of the many problems that beset Manilius' text and have, in my citations, made my own textual choices, using the editions of Goold 1998 and Feraboli, Flores, and Scarcia 1996–2001 as my main guidelines, while also consulting many others. I have, however, normally refrained from discussing the issues at stake, except in a few cases where these have a direct bearing on my argument.

Chapter 2

Portrait of the Universe

Following the poetic conventions of his time, Manilius begins the *Astronomica* with an announcement of the work's subject matter:

carmine diuinas artes et conscia fati
sidera diuersos hominum uariantia casus,
caelestis rationis opus, deducere mundo
aggredior... (1.1–4)

By song I undertake to draw down from heaven the divine arts and the stars, knowledgeable of fate, which govern the diverse fortunes of men, a work of divine reason...

The poet will sing of the stars, not just the stars as such, but the stars in as far as they are 'knowledgeable of fate' (*conscia fati* | *sidera*, 1–2¹) and govern the lives of human beings (2). In other words, Manilius' topic is astrology, the science of how the celestial bodies affect life on earth and of how one can make predictions about the fate of individuals on the basis of the position of the stars at particular times, especially at a person's birth.

Calling astrology a 'science' will strike many readers as inappropriate. After all, astrology is marginalized in our society, being largely regarded as unfounded superstition and playing a role primarily in such venues as the horoscope columns of women's magazines, where, one suspects, it is often not taken all too seriously either. The situation was completely different in antiquity (cf. Lehoux 2007: 35–9). While astrology had its critics, it was the majority opinion that heavenly phenomena do influence human life, and the endeavour to determine what the stars have in store for human beings was often part of what we would consider astronomy—that is, the 'scientific' study of the heavens.² Astronomy

¹ As discussed in greater detail in 5.2, the phrase is an allusion to Verg. *Aen.* 4.519–20.

² For example, much of ancient astronomy was devoted to finding ways of calculating exactly the times of the risings and settings of planets and constellations at different geographical locations, an endeavour whose main practical use was to enable astrologers

and astrology were often practised by the same person; thus, for example, Ptolemy, the most famous ancient astronomer, was an astrologer as well, and this pattern continues into modern times, where we find that such central figures in the history of astronomy as Tycho Brahe and Johannes Kepler also cast horoscopes. Crucially, these scholars would not have viewed themselves as pursuing two distinct enterprises: for them, astronomy and astrology were but two sides of the same coin.

As a matter of fact, our terminological distinction between ‘astronomy’ and ‘astrology’ is largely absent in antiquity. The Greeks and Romans for the most part used both *astronomia* and *astrologia* to refer to the ‘study of the stars’ in general, without regard to whether astrological (in the modern sense) presuppositions were involved.³ If anything, *astrologia* was the more general and widespread term, while *astronomia*, favoured by the Platonic school, may on occasion have had somewhat more esoteric connotations.⁴ None of this is to say that the ancients were unable to distinguish in principle between the mere description and explanation of heavenly phenomena (what we call astronomy) and the attempt to interpret these phenomena as sources of information concerning human fate (what we call astrology)⁵—or that they did not have expressions, such as *mathematici* (lit. ‘men devoted to knowledge; mathematicians’) or *Chaldaei* (lit. ‘Chaldaeans; Babylonians’), to refer solely to those devoted to the second enterprise.⁶ Still, it is important to keep in mind that our fundamental qualitative distinction between the two pursuits (the one a serious science, the other a bogus occult practice) did not exist as such at Manilius’ time.

As for the poet himself, he discerns, as it were, two steps in the study of the universe. The first is described as follows:

iuuat ire per ipsum
aera et immenso spatiantem uiuere caelo
signaque et aduersos stellarum noscere cursus. (1.13–15)

to cast nativities with greater precision. On the connection of astronomy and astrology in antiquity, see Evans 1998: 343–4, Rihl 1999: 62–3, and Irby-Massie and Keyser 2002: 3.

³ On the terms and their history, see Hübner 1989; for the Latin usage, see also Le Bœuffle 1987 s.v. ‘astrologia’. To avoid confusion, I shall continue to use the two words in their modern sense throughout the book.

⁴ See Hübner 1989: 12–16. This might explain the title of Manilius’ poem, *Astronomica* rather than *Astrologica*—though, given that it is attested as such only in the manuscripts, there is no way of knowing whether this title was chosen by the poet himself.

⁵ See the discussion by Ptolemy in *Tetr.* 1.1, with Beck 2007: 3–8.

⁶ For these and other Latin terms for ‘astrologer’, see Le Bœuffle 1987 s.v. ‘astrologus’.

It is pleasing to walk through the air itself and live strolling in the immense sky and to learn about the constellations and the contrary movements of the planets.

Imagining himself as travelling through the skies (a poetic metaphor of which he is very fond), Manilius is pleased to learn about the constellations and the movements of the planets.⁷ These topics are basic astronomical material. However, as Manilius points out immediately afterwards, for him this knowledge is not sufficient: *quod solum nouisse parum est* ('it is not enough to know only this', 1.16). The poet has higher ambitions:

impensius ipsa
scire iuuat magni penitus praecordia mundi,
quaque regat generetque suis animalia signis
cernere et in numerum Phoebus modulante referre. (1.16–19)

It is more pleasing to know in depth the very heart of the universe and to see how it governs and brings forth living beings by means of its signs and to speak of it in verse, with Phoebus providing the tune.

This second step involves learning about the 'heart' of the universe, which—as is apparent from the reference to its 'signs' in 1.18—must be the zodiac.⁸ The idea that the zodiac affects life on earth, playing a crucial role especially at the birth of human beings, is a central tenet of astrology, and it is clear from this passage that Manilius views the zodiac and its astrological significance as the main topic of his work. Indeed, of the five books of the *Astronomica*, three (Books 2–4) are concerned directly with the zodiac, while one (Book 5) treats a topic closely related, the so-called paranatellonta, constellations that rise simultaneously with the zodiacal signs.

Manilius thus appears to regard astronomy as propaedeutic to astrology: the astrologer must know about the movement of constellations and planets, but this is just the first step to gaining insight into the true workings of the cosmos. The poet creates a contrast between the readily

⁷ Note that, in Manilius' geocentric world, the seven planets include Saturn, Jupiter, Mars, Venus, and Mercury, as well as the Sun and the Moon; see further 2.3 on Manilius' universe and 2.4 specifically on the planets.

⁸ The *praecordia* are literally the 'area before the heart'; for the various meanings of the Latin word ('vitals; abdomen; diaphragm'), see *OLD* s.v. Whatever the exact anatomical referent, the idea is that of a vital part, typically viewed as a seat of the emotions. For Manilius' use of the term for the zodiac (which is also found in 3.61 and implies the popular metaphor of the universe as a living or even anthropomorphic being), see Schwarz 1972: 614.

apparent heavenly phenomena and the hidden ‘heart’ of the cosmos, a contrast that is apparent also later in the proem to Book 1, when Manilius praises the achievements of Mercury, the god who first granted knowledge of the universe to human beings (1.25–39). Mercury brought it about, among other things, that *et ueneranda* [sc. *foret*] | *non species tantum sed ipsa potentia rerum* (‘(that) not just the appearance of things but their very power might inspire veneration’, 35–6). It would seem that ‘appearance’ (*species*) here refers to the heavenly phenomena as they are simply observed by astronomy, while their ‘power’ (*potentia*) is the more important subject of the astrologer’s scrutiny.⁹

However superior and more enjoyable (cf. *impensius* . . . | . . . *iuuat*, 1.16–17) the pursuit of astrological knowledge may be, Manilius realizes that, before beginning his exploration of the hidden forces of the cosmos, it is first necessary for him to provide his readers with the basic astronomical facts. In a transitional passage at the end of the first proem, he states,

et quoniam caelo descendit carmen ab alto
 et uenit in terras fatorum conditus ordo,
 ipsa mihi primum naturae forma canenda est
 ponendusque sua totus sub imagine mundus. (1.117–21)

And since the song descends from high heaven and the fixed order of fate comes to earth, I first must sing of the shape of nature and fashion the image of the entire universe.

While the poet’s reasoning and imagery in the causal clause 117–18 are somewhat obscure (cf. Volk 2002: 237–8 + n. 85), he clearly announces in the following two lines that he will treat the ‘shape of nature’ (*naturae forma*, 120) and provide an image, a portrait, as it were, of the whole universe (121).¹⁰ This astronomical description of the cosmos takes up the entirety of Book 1 and lays the foundation for the detailed astrological discussion in the remainder of the work; any reader wishing to understand what is going on in Books 2–5 thus needs to have read Book 1.

⁹ The same contrast between *species* and *potentia* returns a little later in 1.58–60; for the topos of the ‘secrets of nature’, see Hadot 2006.

¹⁰ That Manilius’ portrait is that of the outward appearance of the *mundus* is stressed through the repeated use of the word *facies* (‘face’, 147, 185, 206, and 811; on the similar *species*, see above as well as Wacht 1990 s.v.), which also contributes to the impression that the universe is a living creature.

In what follows, I shall adhere to Manilius' order of procedure, treating *Astronomica* 1 in this chapter before moving on to the astrological parts of the poem in the next. With the ultimate goal of retracing the poet's portrait of the *mundus* and understanding how it fits in with contemporary views of the universe as we know them from other sources, I shall first discuss general notions about the cosmos that were widespread in antiquity (2.1) before turning to a very brief history of ancient astronomy and cosmology up to Roman times (2.2). After a detailed exploration of Manilius' own portrait of the universe (2.3), the chapter will conclude with a discussion of a striking feature of the poet's astronomy, his near-neglect of the topic of the planets (2.4).

2.1. THE IDEA OF THE *KOSMOS*

In Book 18 of Homer's *Iliad*, the craftsman god Hephaestus creates a shield for the hero Achilles. Made of precious metals and decorated with elaborate images, this piece of armour is an amazing work of art. It is also a representation of the universe: being round, the shield is framed by an image of the stream Okeanos (18.607–8), attesting to the belief that the flat and circular earth is surrounded by such a body of water; it also contains depictions of the earth, sky, and sea (483), the Sun and Moon (484), and all the constellations (485), of which the Pleiades, Hyades, Orion, and Ursa Major are named specifically (486–9).¹¹ In addition, the shield exhibits numerous scenes of human life, involving such archetypal concerns as agriculture, warfare, and marriage.

If a work of art created by a god's skill and craft is thus presented, in our earliest text from classical antiquity, as a replica of the entire world, the Greeks and Romans were accustomed to think, conversely, of the universe as resembling a supreme work of art. Unlike other cultures, the ancients did not typically ascribe the creation of the world to an actual divine craftsman, even though the idea of a creator can be found occasionally in more mythological accounts, most famously Plato's *Timaeus*.¹² Still, even in the absence of a general belief in creation,

¹¹ On Homeric cosmology, see Dicks 1970: 29–34 (with discussion of the shield on 29–30) and Hannah 2005: 20–5.

¹² Another famous creation story from classical antiquity is *Ov. Met.* 1.21–88, which, however, largely lacks explicit craftsman imagery. On creationism (widely defined) in the ancient world, see now Sedley 2007; generally on the idea of the cosmos as an artefact, see Lloyd 1966: 272–94.

nearly all classical authors agree that the cosmos—in particular the heavens with the Sun, Moon, and stars—is both beautiful and, like an artefact devised by a rational being, extremely well designed.

This view of the universe finds its expression in the very word ‘cosmos’, Greek *κόσμος*. The two primary meanings of the noun are ‘order’ and ‘ornament, decoration’ (see LSJ s.v.), attesting to an inherent understanding that that which is orderly is also beautiful and decorative, and vice versa. Beginning with the Presocratics, the word came to be used also for the ‘cosmos’ in the modern sense—that is, both the ‘universe’, meaning ‘the whole world’, and, more specifically, the realm of the heavens with the heavenly bodies.¹³ Apparently this semantic extension was based on a widespread perception that the universe is arranged both beautifully and in an orderly fashion, as is clear, for example, from the following quotation from Aëtius, a doxographer of the first century AD, who ascribes the first use of *kosmos*, ‘universe’, to Pythagoras:

Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὄλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως. (Aët. 2.1.1 = 14.21 DK)

Pythagoras was the first to call the sum of all things *kosmos*, on account of its inherent order.

The Latin equivalent of *kosmos* is *mundus*, a noun whose semantic development, if somewhat less clear, shows interesting parallels to the Greek. The *Oxford Latin Dictionary* lists four different words *mundus* (see s.v. and cf. the *TLL* article by von Kamptz 1936–66), the first an adjective meaning ‘clean’ or ‘refined’, the second a noun referring to female adornment, the third our word for universe, and the fourth a religious term for a subterranean vault or sacrificial pit. The connections among these words are controversial. One likely scenario is that the first two are related to each other, which is semantically plausible, and that the third and fourth are in fact the same word, with the assumption being that the original meaning is something like ‘cavity’, which could

¹³ On the different uses of *kosmos* in Greek philosophy, see Gatzemeier 1976; cf. also Wright 1995: 3–6. Note that the Greeks and Romans for the most part made no strict semantic distinction between ‘universe’ (i.e., all that there is, including heaven and earth) and ‘heaven’ (understood as either everything above the earth or specifically the outer sphere of fixed stars), using the same words—Greek *κόσμος* and *οὐρανός*, Latin *mundus* and *caelum*—for both (for *οὐρανός*, cf. the definition of Arist. *Cael.* 1.9.278^b9–24; for the Latin words, see Le Boeuffe 1987 s.vv.). This lack of lexical differentiation can on occasion be confusing, including in Manilius; for an example, see Volk 2001: 92–4.

equally well apply to the vaults of heaven and to a hole in the ground.¹⁴ Once the Romans became aware of Greek views of the cosmos and of the very word *kosmos* and its connotations, they, too, made the mental connection between beauty and adornment, on the one hand, and the universe, on the other, and thus came to see a link between their own two—accidentally homophonous—words *mundus*.¹⁵ Witness, for example, the following etymological explanation by Pliny the Elder:

namque et Graeci nomine ornamenti appellauere eum et nos a perfecta absolutaque elegancia mundum. caelum quidem haud dubie caelati argumento diximus, ut interpretatur M. Varro. (*HN* 2.1.8)¹⁶

For the Greeks named it [the universe] with the word for ornament [*kosmos*], and we named it *mundus* because of its perfect and absolute elegance. The sky [*caelum*] we named such without doubt because of ‘engraving’ [*caelatum*], as M. Varro argues.

In this quotation, we see not only the association of the cosmos with beauty and elegance, but also once again its approximation to a work of art: the suggested etymology for *caelum*, ‘sky, heaven’, often used as synonym for *mundus* (see fn. 13 above), likens the sky to a piece of metalwork, an engraved or embossed ceiling, no doubt on account of the constellations that are ‘depicted’ on it.¹⁷

Anybody who has ever looked at the sky, especially on a clear night and in a location with little interference from artificial light, can easily understand why the ancients would have considered the heavens a thing of beauty. It is less easy for us, perhaps, to follow them in viewing the universe as a realm of order. As we understand it today, the cosmos is a chaotic place: not only is the universe itself continuously expanding and

¹⁴ Note that in the earliest attestation of *mundus* in the cosmological sense, Ennius speaks of the *mundus caeli*, ‘vault of heaven’ (fr. var. 9 Vahlen), which would support an original meaning ‘cavity’. As for the word for ‘sacrificial pit’, already Cato (according to Festus 144.18–21 Lindsay) suggests that it got its name *ab eo mundo qui supra nos est*, ‘from that *mundus* that is above us’.

¹⁵ Alternatively, all four *mundus* words might ultimately be the same, as argued, e.g., by Puhvel 1976: 163–7, who also provides a survey of earlier literature on the etymologies of *mundus* and κόσμος.

¹⁶ Cf. Varro, *Sat. Men.* 420: *appellatur a caelatura caelum, Graece ab ornatu κόσμος, Latine a puritia mundus* (‘the sky [*caelum*] is called thus because of engraving [*caelatum*], in Greek it is called *kosmos* because of its adornment, in Latin it is called *mundus* because of its purity’).

¹⁷ Manilius alludes to this etymology in 1.679–80: *sed nitet ingenti stellatus balteus orbe | insignemque facit caelato lumine mundum* (‘but the starry belt (of the zodiac) shines in an enormous circle and makes attractive the heavens with its chiselled light’).

are stars constantly dying and being born, but there are such conundrums as dark matter and dark energy, not to mention counter-intuitive phenomena such as black holes. To the ancients, however, whose observable universe was considerably smaller than ours¹⁸ and whose physical presuppositions differed in crucial ways from those of today, matters presented themselves rather differently. One of the great fascinations of the skies was that up there, rather in contrast to down on earth, an unchangeable order seemed to prevail, as is apparent from the following, typically enthusiastic, Manilian passage:

at cur dispositis uicibus consurgere signa
 et uelut imperio praescriptos reddere cursus
 cernimus ac nullis properantibus ulla relinqui?
 cur eadem aestiuas exornant sidera noctes
 semper et hibernas eadem, certamque figuram
 quisque dies reddit mundo certamque reliquit? (1.495–500)

But why do we observe the constellations rise in an appointed rhythm and run their prescribed course as if by command, without any racing ahead or being left behind? Why do always the same stars adorn the summer nights and the same the winter nights, and why does each day impart to the sky a specific appearance at both its arrival and its departure?

The poet is referring to the rising and setting of the constellations as they take place throughout the year, regular as clockwork. The same set of stars is visible in the night sky each summer, a different set each winter; as a matter of fact, every single hour of every single day of the calendar year exhibits a specific arrangement of fixed stars on the firmament. All this, as Manilius says, is easily observable (*cernimus*, ‘we see’, 497).

However, these regular patterns are at work not only in our own lifetime. When the Greeks sacked Troy, the poet continues, the constellations already moved in exactly the same way, with Ursa Major narrowly circling the north pole and Orion describing a wide circle close to the equator (501–5),¹⁹ and already people were able to tell time at night (506–7), a skill for which it is necessary to discern the signs of the zodiac and observe their subsequent risings. Since the Trojan War, a long time

¹⁸ All astronomical observation in antiquity was with the naked eye only. For the extent of the ancients’ observable universe, see Dicks 1970: 10.

¹⁹ Manilius singles out Ursa Major and Orion, not only because of the contrast in diameter of their diurnal rotations, but also to make an allusion—fitting in a discussion of the Trojan War—to Homer’s shield description in *Iliad* 18, where, as mentioned above, both constellations are named and in fact specifically associated in 18.488.

has passed, many kingdoms have fallen, and Troy itself has risen again as the Roman empire (508–12). Through all these changes of human fortune, the behaviour of the stars has remained exactly the same.²⁰ Thus, the poet sums up:

saecula dinumerare piget, quotiensque recurrens
 lustrarit mundum uario sol igneus orbe.
 omnia mortali mutantur lege creata,
 nec se cognoscunt terrae uertentibus annis
 exutas uariam faciem per saecula ferre.
 at manet incolumis mundus suaque omnia seruat,
 quem nec longa dies auget minuitque senectus
 nec motus puncto curuat cursusque fatigat;
 idem semper erit quoniam semper fuit idem.
 non alium uidere patres aliumue nepotes
 aspicient. (1.513–23)

It is tedious to count the ages or how often the fiery Sun returning has traversed the sky in its varied course. All things created according to mortal law are changing, and with the years turning, the lands do not know that they take off and put on new appearances through the ages. But heaven remains unchanged and preserves all its characteristics; long time does not increase it and age not diminish it, and its movement affects it in no way, nor does its course wear it out. It will always be the same because it always was the same. Our fathers saw it no different, nor will our grandsons.

For Manilius, the conclusion is that the cosmos is divine: the fact that Sun, Moon, and stars stick to their appointed course (1.524–30) ‘is not the work of chance, but the orderly arrangement of a great divinity’ (*non casus opus est, magni sed numinis ordo*, 1.531; see also 1.483–94 and 523). This belief was widespread in antiquity and will interest us later in Chapter 6. To remain, for the moment, with the more general idea of the world as a *kosmos*, it is obvious from the Manilian passages just discussed that the notion that a never-changing order prevails in the universe is based on the observation of the regular movements of the heavenly bodies. Every morning, the Sun rises to set again in the evening, with days being longer in the summer and shorter in the

²⁰ It was known already in Manilius’ time that the position of the heavenly bodies as observed from one and the same location does not in fact remain exactly the same over time, owing to the precession of the equinoxes (see Evans 1998: 245–6 and Rihll 1999: 66–9). This phenomenon, discovered by the famous astronomer Hipparchus (2nd c. BC), was largely ignored in non-specialist writing, no doubt because it added unwelcome complexity to the perceived regularity of celestial motion.

winter. The Moon continuously goes through its phases, waxing and waning in turn. And the entire firmament of fixed stars unceasingly wheels around the earth, returning all the constellations to their origins in the course of one day and one night, with subtle changes in their arrangement and visibility taking effect in the course of the seasons. This spectacle of beauty and order inspired the Greeks to refer to it as *kosmos* and to endeavour to understand its intricate workings. Their and their Roman successors' attempts at explaining the mechanism of the universe constitute the history of ancient cosmology and astronomy, a dynamic process in the course of which, over the centuries, various theories were proposed, modified, and rejected, until a basic consensus was finally reached, a view of the world that was to remain in place, *mutatis mutandis*, until the sixteenth century.

2.2. THE TWO-SPHERE UNIVERSE

In order to explain the movements of the heavenly bodies (the subject of astronomy, the 'science of the stars'), it is necessary to have a cosmology, a theory about the nature and shape of the universe as a whole.²¹ Take, for example, the view of the world that is apparent from the Homeric poems and that is, we presume, representative of cosmological notions widespread in the eighth century and possibly quite a bit earlier. To judge from the shield description in *Iliad* 18, the earth appears to be round and flat and is entirely surrounded by Okeanos. As for the daily course of the Sun, this can be explained by the god Helios' driving his chariot across the sky every day, rising from Okeanos in the east and setting into the same body of water in the west.²² At this point, however, Homer's cosmology raises an astronomical problem: how does the Sungod get back from west to east, in order to be able to rise again in the same spot in the morning? Homer himself does not address the

²¹ Generally on cosmology in antiquity, see Wright 1995. For a useful outline of the development of scientific thought in Greece, see Irby-Massie and Keyser 2002: 1–17. Specifically on ancient astronomy, see Evans 1998, as well as Heath 1932, Neugebauer 1952 and 1975, Kuhn 1957: 1–99, Dicks 1970, Hoskin 1997, Rihll 1999: 62–81, and Irby-Massie and Keyser 2002: 47–81.

²² See Dicks 1970: 31, with passages. Note, though, that in addition to this 'bipolar' cosmos, Homer and other Archaic Greek texts also present evidence of a 'unipolar' model, according to which sunrise and sunset occur in the same place; see Ballabriga 1986 and Nakassis 2004, with further references.

issue, but other Archaic authors do. As the seventh-century elegist Mimnermus explains,

τὸν μὲν γὰρ διὰ κῦμα φέρει πολυήρατος εὐνή,
 ποικίλη, Ἥφαιστου χερσὶν ἑλληλαμένη,
 χρυσοῦ τιμήεντος, ὑπόπτερος, ἄκρον ἔφ' ὕδωρ
 εὖδονθ' ἀρπαλέως χώρου ἀφ' Ἑσπερίδων
 γαῖαν ἐς Αἰθιοπῶν. (fr. 12.5–9 West)²³

A lovely decorated bed made by the hands of Hephaistos, of precious gold and winged, carries him through the waves, on the surface of the water, as he sleeps pleasantly, from the country of the Hesperides to the land of the Aethiopeans.

The image of the god asleep in the golden boat that carries him around the earth back to his rising place in the east is beautiful, but as an explanation for the daily motion of the Sun it was eventually considered unsatisfactory. Beginning in the sixth century, the Presocratic philosophers endeavoured to come up with materialistic explanatory models for natural phenomena, dispensing with mythology's apparatus of anthropomorphic gods. In a period of intellectual history characterized by great diversity of opinion, each thinker formulated his own cosmological theory, dismissing his predecessor's view and attempting to devise a model that accounted more convincingly for the observed facts. Thus, for example, Anaximander (1st half 6th c. BC) maintained that the earth was shaped like the drum of a column, that is, circular and flat on the top and bottom, but of a certain depth. The heavenly bodies, according to him, are circles of fire that surround—and, one supposes, wheel around—the earth, being, however, nearly completely covered with dark air, except for a few holes; the fires revealed through these holes are the Sun, the Moon, and the stars as they appear to us (see Hippol. *Haer.* 1.6.3–5=12A11 DK; Aët. 2.20.1=12A21 DK). By contrast, his younger contemporary Anaximenes held that the earth was flat and that the heavenly bodies were moving around it (see Hippol. *Haer.* 1.7.4=13A7 DK), without, however, ever going underneath it, but rather circling it 'just as the felt cap turns around our head' (ὡσπερὲν περὶ τὴν ἡμετέραν κεφαλὴν στρέφεται τὸ πιλίον, Hippol. *Haer.* 1.7.6=13A7 DK). This, of course, raised the question of the apparent setting of the Sun, which Anaximenes seems to have solved by claiming that at night, the Sun is in reality just hidden behind faraway mountains (*ibid.*).

²³ This passage is preserved for us by Athenaeus, who in 11.469c–470d discusses the idea of the Sungod's barque (often called a 'cup') in great detail, quoting a number of additional ancient testimonies.

Over time, however, these diverging speculations were replaced by a kind of cosmological consensus, brought about at least to a certain extent by the authority of the great fourth-century school founders Plato and Aristotle, who incorporated individual ideas of their Presocratic predecessors into their own overarching systems. In particular, Aristotle succeeded in formulating, especially in his treatise *De caelo*, a summary of general cosmological principles that was, by and large, accepted by philosophers and astronomers for centuries afterwards. According to Aristotle, the cosmos is a 'two-sphere universe'²⁴: it consists of a (solid) sphere within a (hollow) sphere, the inner sphere being the earth and the outer sphere being the firmament with all the constellations.²⁵ While the earth is at rest, the firmament revolves around it in the course of one day and night, thus accounting for the movement of the fixed stars. As for the Sun, Moon, and other planets, these wheel around the earth in the space between its surface and the outer sphere. Crucially, the motions of all heavenly bodies are imagined as circular and regular (see Figure 1). Since the two-sphere universe is the cosmos in which Manilius, too, is at home, we shall be able to investigate its workings further when taking a detailed look in the next section at the world described in the *Astronomica*.

In the centuries after Aristotle, his geocentric universe remained the basis for nearly all cosmological and astronomical investigation up to the time of Copernicus.²⁶ The Hellenistic period witnessed an unprecedented flourishing of Greek mathematical astronomy, fuelled by the contact (following the conquests of Alexander the Great) with Mesopotamian observational records and methods of calculation, by the development of trigonometry, and by the patronage offered to scientists by

²⁴ The term appears to have been coined by Thomas S. Kuhn (see 1957: 27), whose exposition in Kuhn 1957: 1–99 remains the clearest introduction to ancient cosmology and astronomy.

²⁵ The idea of a spherical earth (still absent, as we have seen, in Anaximander and Anaximenes, not to mention Homer) was supposedly first mooted by Pythagoras or possibly Parmenides (see Diog. Laert. 8.48), but Aristotle appears to be the first to provide detailed arguments in favour of the hypothesis (*Cael.* 2.14.297^a8–298^a20; cf. Evans 1998: 47–8). For Manilius' arguments in favour of the sphericity of the earth, see 2.3 below.

²⁶ Alternative theories, such as the hypothesis of a rotating earth put forth by Heraclides of Pontus (4th c. BC) or the heliocentric cosmos of Aristarchus of Samos (3rd c. BC), never reached the mainstream (see Evans 1998: 35–6; the reasons for the extraordinary success of the two-sphere universe are discussed by Kuhn 1957: 83–99). Similarly, Epicurean cosmology, which offered explanations of natural phenomena often radically at odds with the *communis opinio*, remained isolated (see Bakhouché 1996: 309–12).

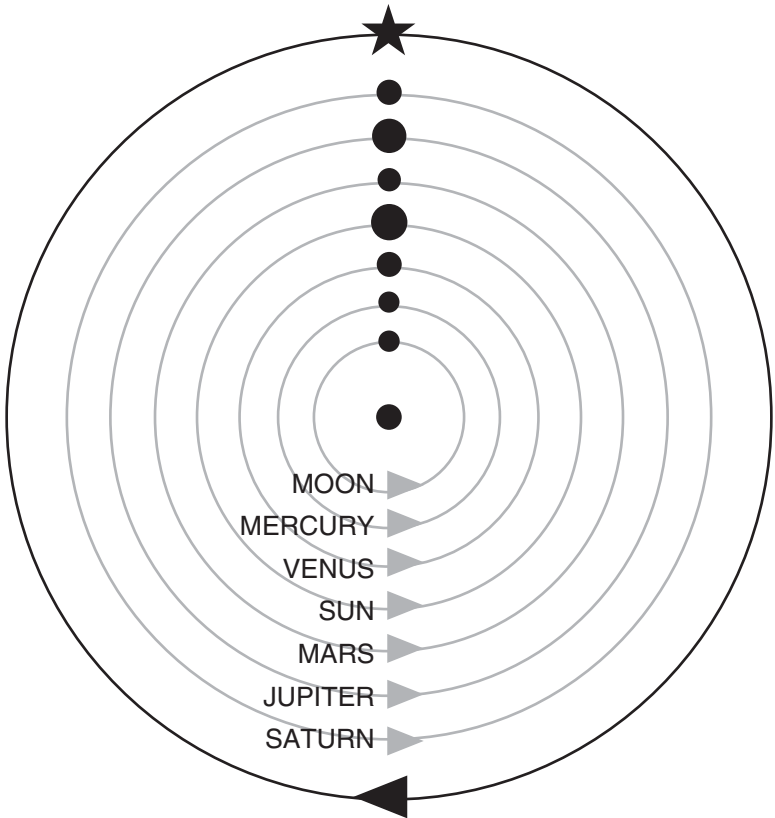


Figure 1. The two-sphere universe

powerful rulers.²⁷ The compilation of detailed star catalogues, Eratosthenes' calculation of the circumference of the earth, Hipparchus' discovery of the precession of the equinoxes, and the endeavour to model planetary movement with the help of epicycles and deferents—to name just a few achievements—all fall within this same golden age of ancient science, the third and second centuries BC.

²⁷ For Hellenistic astronomy, see esp. Lloyd 1973: 53–74 and the sources quoted in Irby-Massie and Keyser 2002: 47–81. On Mesopotamian astronomy, whose nature and influence on Greek science cannot be discussed within the framework of this book, see Neugebauer 1952: 92–138 and 1975: 1.345–555, Hoskin 1997: 23–9, and Evans 1998: 5–17 and index s.v. 'Babylonian astronomy' and 'Babylonian planetary theory'. On Mesopotamian astrology, see 3.2 below.

The following centuries up to the time of antiquity's greatest astronomer, Ptolemy (2nd c. AD), were characterized, not so much by new theories and discoveries, but rather by the consolidation and canonization of extant knowledge. Basic astronomical facts were summarized in textbooks and became part and parcel of what an educated person had to know. When political power passed from the Greek states to the Roman Empire, and Roman culture in turn was increasingly Hellenized, Greek astronomy, too, made its way into Rome, where it was taken up enthusiastically. While there probably were never any Roman astronomers—all professionals were Greek²⁸—educated members of the upper class liked to devote themselves to the contemplation of the skies and, on occasion, made it the object of their more detailed studies as well as their writing.²⁹

The widespread non-specialist interest in things having to do with the stars is apparent from nothing as much as from the popularity of Aratus' *Phaenomena*. Modern readers often find themselves baffled by the unparalleled success of this third-century didactic poem, a versification of two prose treatises (now lost), a description of the fixed stars by Eudoxus and a peripatetic work on weather signs, possibly by the same author.³⁰ By no means an astronomer himself,³¹ Aratus committed a considerable number of scientific errors, but this did not prevent his poem from being used for centuries as an astronomy textbook³²—even though the work, far from being comprehensive, amounts to little more than a catalogue of the constellations plus a list of paranatellonta (stars that rise simultaneously with signs of the zodiac) and discussion of (largely unastronomical) weather signs. The *Phaenomena* spurred a wealth of secondary literature: commentaries, scholia, and works supplementing it with additional material, for example, stories about

²⁸ Witness, e.g., the Alexandrian astronomer Sosigenes, who assisted Caesar in his calendar reform of 44 BC (see Plin. *HN* 18.211). Note, though, that it is difficult to formulate a satisfactory definition of what constitutes a 'professional' (v. an 'amateur') scientist in ancient times and that the very discourse of ancient 'science' 'cannot be precisely distinguished from other intellectual activities' (Irby-Massie and Keyser 2002: 1).

²⁹ On Roman interest in astronomy, see Soubiran 1979, Rawson 1985: 162–7, Le Bœuffe 1989, and Bakhouche 1996 (who discusses Latin astronomical texts); cf. also Stahl 1962.

³⁰ For an introduction to Aratus, see Volk forthcoming. For the idea that the weather-sign portion of his poem goes back to Eudoxus as well, see Sider and Brunschön 2007: 16–18 and 42.

³¹ Cf. Cic. *De or.* 1.69 (quoted above in 1.2) and *Rep.* 1.22.

³² On Aratus as a school author, see Weinhold 1912, Marrou 1956: 184–5, and Lewis 1992: 113–18.

catasterisms (the transformation of human beings, animals, and objects into constellations).³³ One commentary was written by the second-century astronomer Hipparchus, who set out to correct Aratus' many mistakes; ironically, this text is the only work of the famous scientist to have survived to our time.

If Aratus was popular among the Greeks, he was perhaps even more beloved by the Romans. Over the centuries, the poem was translated or adapted into Latin at least six times. Cicero wrote a version in his youth, of which significant fragments survive, while a translation of the part on weather signs by the neoteric poet Varro of Atax is nearly completely lost, as is Ovid's adaptation of the whole poem. Still extant, however, are the versions of Manilius' contemporary Germanicus and of the fourth-century poet Avienius, as well as an anonymous eighth-century version, the so-called *Aratus Latinus*.³⁴ In addition, Aratus' influence is apparent in many other works of Latin poetry, such as Vergil's *Georgics* and Ovid's *Fasti*, as well as, as we shall see, in Manilius himself.³⁵ It is probably fair to say that no Roman poet could write about the stars without taking account of Aratus.

To conclude this quick survey of the history of Greek and Roman cosmology and astronomy, it is clear that by the time of Manilius, educated people largely agreed on the basic structure and workings of the cosmos and that the two-sphere universe first described by Aristotle had become commonplace.³⁶ In what follows, I shall take a close look at Manilius' own portrait of the *mundus*, which will serve to fill in the blanks of the hasty sketch of the two-sphere universe given above and provide a more detailed picture of the cosmology current in the early first century AD. At the same time it will enable us to appreciate some of the poet's more idiosyncratic cosmological views and interests.

³³ An especially popular work in this tradition was an adaptation of the *Catasterisms* of Eratosthenes, originally an independent work on the constellations by the famous Hellenistic scholar (3rd c. BC), but subsequently reconfigured to serve as a commentary to Aratus. Both the original treatise and the adaptation are lost, but the latter can be partly reconstructed on the basis of a later epitome and material in Hyginus (1st c. BC), as well as in the scholia to Aratus and Germanicus. The fragments are edited by C. Robert 1878 and Pàmias i Messana 2004; the complicated history of the work is succinctly summarized by Geus 2002: 211–23.

³⁴ The temporal relationship of the works of Manilius and Germanicus is unclear and highly controversial; I briefly discuss the issue in 5.2, fn. 29. For the spelling 'Avienius' rather than 'Avienus', see Cameron 1995a.

³⁵ On Aratean influence in the *Georgics*, see Farrell 1991: 157–68; on the *Fasti*, see Gee 2000. For Manilius' use of Aratus, see the next section and 5.2 below.

³⁶ See Soubiran 1979: 172–7 for a useful summary of received notions about the universe in Roman antiquity.

2.3. THE WORLD ACCORDING TO MANILIUS (*ASTRONOMICA* 1)

Endeavouring to begin at the beginning, Manilius opens his description of the cosmos with a brief discussion of its origin, presenting in a learned manner a number of different scholarly opinions, mostly drawn from Presocratic philosophy (1.122–46). Is the world ungenerated and imperishable? Did it arise from primeval chaos? Is it constituted by atoms, by fire, by water, or by four elements?³⁷ Manilius refuses to make up his mind on the matter:

semper erit genus in pugna, dubiumque manebit
quod latet et tantum supra est hominem deumque. (1.145–6)

The origin (of the universe) will always be a matter of controversy, and doubtful will remain that which is hidden and is so far beyond man and god.

This admission of ignorance—on the part not only of the poet, but of mankind in general and the gods as well—might come as a bit of a disappointment, and so Manilius hastens to add:

sed facies quacumque tamen sub origine rerum
conuenit, et certo digestum est ordine corpus. (1.147–8)

But whatever its origin, the appearance of the universe is in agreement, and its body is arranged in a certain order.

From the point of view of the poet, it does not matter so much how the universe came to be, as long as its present structure is clear and as long as it works according to a perceptible and reliable order (*ordine*, 148). Note in this context Manilius' clever use of the verb *conuenit* (148): the basic meaning of the word is 'comes together, agrees with', and some translators have taken this as a reference to the harmonious, well-ordered appearance of the universe;³⁸ however, the verb can also mean 'is agreed upon', and it is understood in this way by Goold 1992, who translates 'all are agreed about the outward appearance of the universe'. However, it seems to me that Manilius is making use of both connotations at the same time: it is *because* the universe is so well arranged and

³⁷ For an overview of the contents of the *Astronomica*, see the Appendix.

³⁸ See Liuzzi 1991–7 ('l'aspetto esterno ha una sua armonia') and Feraboli, Flores, and Scarcia 1996–2001 ('l'aspetto delle cose... ha una sua convenienza'); cf. also the paraphrase of van Wageningen 1921 *ad loc.* ('partes eius inter se cohaerent').

harmonious that everybody can agree on its appearance; likewise, it is because its structure is so orderly and ‘certain’ (*certo . . . ordine*, 148) that everybody can be certain about it.³⁹

As it turns out, Manilius is at this point referring specifically to the fact that the world is made up of four elements, each of which has its own natural place in the universe. In spite of his previous declaration of ignorance, he now offers a kind of cosmogony after all, recounting a crucial stage in the process of the constitution of the cosmos, the separation of the individual elements, and their coming to rest in their appropriate domains (1.149–66): fire rises to the top to constitute the stellar sphere, air fills out the empty space underneath, water forms the seas on top of the earth, and earth solidifies at the very bottom. There is always a certain degree of mixture among the elements, but their natural tendency is to be filtered out and find their like.

Manilian scholars tend to label this cosmogony Stoic,⁴⁰ but I suspect that the ideas formulated in this section were so widely shared in the poet’s time that his contemporary readers would not necessarily have associated them with a specific school (see also Bakhouché 1996: 106–7). That the world consists of four basic elements (a thesis first put forth by Empedocles and then taken up by Plato and Aristotle) was generally accepted, and so was the idea (worked out especially by Aristotle) that they each have their natural locus which they strive to reach. The only particularly Stoic feature of Manilius’ account is the absence of a special fifth element, aether, which had been posited by Aristotle to account for the make-up of the heavenly bodies; for the Stoics, and for Manilius, there is no fifth element, and fire is the topmost matter that constitutes the stars (*summaque complexus [sc. ignis] stellantis culmina caeli*, ‘(fire) taking up the highest vault of starry heaven’, 150).⁴¹ However, Manilius’ text shows no trace of the Stoic doctrine that fire is some kind of master

³⁹ What we see at work here is a favourite technique of Manilius, the use of the same vocabulary to refer to the universe, on the one hand, and the mental processes of understanding and describing it, on the other. The result is a blurring of boundaries between science and the object of science, poetry and its subject matter, and human beings and the cosmos—a blending that is indicative of the general interconnectedness of all aspects of the world. See further Volk 2002: 234–40, as well as 5.3 below.

⁴⁰ See Breiter 1907–8 *ad loc.*, van Wageningen 1921 *ad loc.*, Liuzzi 1991–7 *ad loc.*, Goold 1992: 16 n. a, Feraboli, Flores, and Scarcia 1996–2001 *ad loc.*, and esp. Luck 1984.

⁴¹ Not allowing for a fifth element, the Stoics occasionally used the designation ‘aether’ for the fire that makes up the heavenly bodies (see Diog. Laert. 7.137=SVF 2.580=LS 47B and Long and Sedley 1987: 1.286–7). Manilius may be hinting at this usage with the expression *aetherias . . . oras* (‘aetherial regions’, 1.149).

element that plays an active, shaping part in the creation of the world and that the other three elements are secondary.⁴² Since other ancient authors—many without obvious Stoic affiliation—provide similar accounts of the four elements and their natural place,⁴³ I believe that Manilius' treatment is indicative of mainstream beliefs at his time rather than of a conscious espousal of a particular philosophical creed.⁴⁴

With his description of the natural place of the elements, Manilius has in effect set up the two-sphere universe: fire is on top, earth at the bottom, but what this really means is that fire forms the stellar sphere that runs all around the universe while earth rests in the centre of that sphere, being at the same time *medium totius et imum* ('the centre and the bottom of the whole', 1.170). At this point, the poet takes some time to discuss the earth and its special status, treating first its central position (1.168–203) before endeavouring to prove its sphericity (1.204–46).⁴⁵ As for the first topic, one might well wonder why the earth remains 'hanging' (see *penderet*, 173, *suspensa*, 180, *pendentis*, 195, and *pendit*, 201) in the centre without falling down or moving about. Manilius explains that this is because it is positioned at the exact centre, equally removed from all sides, and therefore has no impulse to move in any direction (1.168–70). Furthermore, if the earth did not remain suspended in the same position, there could not be the regular movements of the Sun and Moon that we observe and that are made possible by the fact that the earth is in the middle and that the two luminaries are circling around it according to fixed rules (1.173–93). Finally, the universe itself as well as the Sun and Moon and other planets are all floating, as it were, not resting on anything, and it is thus not surprising if 'the earth, too, following the rules of the air, took up a hanging position' (*terra quoque aerias leges imitata pependit*, 1.201). We can thus take it for granted, Manilius sums up, that the earth is indeed positioned in the middle of the cosmos, at equal distance from all sides (1.202–3).

⁴² For this belief, see Stob. 1.129.2–130.13 Wachsmuth=SVF 2.413=LS 47A and Long and Sedley 1987: 1.286.

⁴³ Cf. esp. Ov. *Met.* 1.22–31 with the discussion of Di Giovine 1978: 402–6; other parallel passages are listed in the commentaries.

⁴⁴ This does not mean that the cosmogony in *Astr.* 1.149–66 is not in agreement with Stoic doctrine, but rather that Stoic doctrine on this particular issue had become so absorbed by the general culture and so blended with similar ideas of different provenance that it no longer makes sense to isolate it and designate it as specifically Stoic. Generally on Manilius' presumed Stoicism, see 6.2 below.

⁴⁵ On Manilius' treatment of these two points, see Abry 2005.

It is also round (1.204–5). Using the same line of argument as before, Manilius maintains that this makes sense, since, after all, the entire universe and all the other heavenly bodies are likewise spherical (206–10). However, there is more to it:

haec aeterna manet diuisque simillima forma,
 cui neque principium est usquam nec finis in ipsa,
 sed similis toto ore manet perque omnia par est. (1.211–13)

This shape [the sphere] remains eternal and is most similar to the divine: it does not have a beginning or end anywhere in itself but remains the same on its whole surface and is identical everywhere.

The idea that the sphere is the perfect body is a commonplace that goes back to Plato, or even Pythagoras, and contributes crucially to the perception of the two-sphere universe as a *kosmos*, a sublimely beautiful and well-ordered whole.⁴⁶

In addition to this *petitio principii* (the sphere is the perfect body, hence the universe, the heavenly bodies, and the earth—being perfect—must all be spheres), Manilius provides two more scientific proofs for the round shape of the earth. First, he observes that not all constellations are visible from all points on the earth's surface (1.215–20), as would be the case if the earth were flat. Second, he claims that the sphericity of the earth is apparent from what happens during a lunar eclipse (1.221–35). Unfortunately, at this point the poet has garbled his argument, possibly because he misunderstood his sources or maybe out of sheer ignorance.⁴⁷ As shown by Aristotle (*Cael.* 2.14.297^b23–30), a lunar eclipse indeed provides proof of the earth's sphericity, since the earth's shadow that passes over the Moon and causes the eclipse (as was well understood by the ancients⁴⁸) is observably round. However, Manilius does not mention this fact and maintains instead that lunar eclipses are not visible everywhere on earth at the same time, being first observed in the east and then moving westward (1.222–9). It would seem that the poet is mixing up the observability of an eclipse with the fact that the Moon does indeed revolve around the earth from east to west and thus

⁴⁶ Cf. Diog. Laert. 8. 35=58C3 DK, Pl. *Ti.* 33b4–7, and (for the Stoic adoption of the view) Cic. *Nat. D.* 1.24 and 2.47–8 and Cleomedes 1.5.139–45 Todd, as well as the passages cited by Feraboli, Flores, and Scarcia 1996–2001 *ad loc.* and Bowen and Todd 2004: 73 n. 39.

⁴⁷ See the comments of Breiter 1907–8 *ad loc.*, van Wageningen 1921 *ad loc.*, Goold 1992: pp. xix–xx, and Feraboli, Flores, and Scarcia 1996–2001 *ad loc.*

⁴⁸ The discovery of the causes of lunar and solar eclipses is ascribed to Anaxagoras (5th c. bc); see Hippol. *Haer.* 1.8.9–10=59A42 DK and Aët. 2.29.6=59A77 DK.

risers earlier in the eastern regions of the globe than in the western ones (as is reiterated in 1.230–5). As a matter of fact, an eclipse occurs at one specific point in time, at which it can be observed by anybody on earth, no matter where, provided he or she is at a location where it is night and where the Moon is over the horizon. The only difference (and this is perhaps where Manilius got confused) is that the local time at the moment of the eclipse is different. Thus, for example, Pliny the Elder mentions an eclipse (in this case, solar) that occurred in AD 59 and was observed in Campania between the seventh and the eighth hour; but it was also seen by Roman troops in Armenia, where the local time was between the tenth and the eleventh hour (*HN* 2.180; see also Cleomedes 1.5.39–44 Todd, with the note of Bowen and Todd 2004: 67 n. 12).

Regarding the sphericity of the earth as sufficiently proved, Manilius concludes his discussion of things terrestrial by remarking that not only the northern hemisphere of the earth is inhabited, but the southern one as well (1.236–46). The Greeks and Romans were fascinated by the idea of the antipodes (see Moretti 1994a: 17–77 and 1994b: 241–61), and it is perhaps because of the fantastic associations of this imagined people on the other side of the globe that Manilius does not mind that he is committing an egregious error in claiming that it is night ‘down there’ when it is day up north. It is quite inconceivable that a poet writing an astrological poem (and one who just a few lines earlier discusses the westward course of the Moon) would not have known that the Sun moves from east to west and not from north to south, and I therefore suggest that this is one of the instances where Manilius, as it were, switches from one discourse to another in a way that appears self-contradictory.⁴⁹ Discussing a semi-mythic people in a faraway location, the poet is, as it were, suddenly writing in a different genre that follows different rules, and since one of the attractions of the antipodes theme is that those people live in a land where everything is ‘upside down’, it seems only logical that the risings and sittings of the Sun as seen by them should also be the opposite of what the northerners experience.⁵⁰

At this point in Book 1, Manilius has established the basic shape of the cosmos and its make-up of four elements. Summing up, he declares:

⁴⁹ Cf. my remarks in 1.2 above.

⁵⁰ The same idea is found elsewhere, e.g., in Verg. *G.* 1.249–51 and Sen. *Ep.* 122.1–3 (and perhaps Lucr. 1.1065–7), authors who, one assumes, would also have been aware of its scientific implausibility; see Moretti 1994a: 31–48 and 1994b: 246–55 on the popular literary motif of the antipodes as a ‘mondo alla rovescia’.

hoc opus immensi constructum corpore mundi
 membraque naturae diuersa condita forma
 aeris atque ignis, terrae pelagique iacentis,
 uis animae diuina regit, sacroque meatu
 conspirat deus et tacita ratione gubernat. (1.247–51)

This construct constituted by the body of the immense universe, and its members formed by the diverse elements of nature—air and fire, earth and stretched-out sea—a force of divine spirit rules it, and god inspires it with sacred motion and directs it with silent reason.

Harking back to the introduction of the treatment of the four elements in 1.147–8, these lines develop further the idea of the universe as a living being: the *mundus* has a body (*corpore*, 247) and limbs (*membra*, 248), as well as a soul (*anima*, 250). The latter is identified with god (*deus*, 251), who is ruling the universe by means of reason (*ratione*, 251). We have encountered the idea of the divinity of the universe before and shall have occasion in Chapter 6 to return in greater detail to the philosophical and religious aspects of Manilius' cosmology. For the moment, it should be pointed out simply that, throughout the *Astronomica*, the poet is exceedingly vague about the exact relationships among the universe, god, and reason, sometimes identifying all three, or just one and the other, sometimes keeping them apart and defining one, as it were, as the object and/or tool of another (this is the case in our passage: *deus* rules the *mundus* by means of *ratio*).

After his preliminary discussion of cosmology, Manilius finally turns, in 1.255, to his main topic, the stellar sphere (*signorum lucentis undique flammis*, 'the fires of the constellations that shine everywhere'). This part of the *Astronomica*, which takes up nearly all the remainder of Book 1 (up to 1.808), is similar in content and structure to the first half of Aratus' *Phaenomena* (1–558); it is generally assumed that Manilius modelled his treatment on that of his famous predecessor, while also using the extant Latin versions of Aratus by Cicero, Ovid, and perhaps Germanicus, as well as commentaries on Aratus and a version of the *Catasterisms* of Eratosthenes.⁵¹ In addition, it is likely

⁵¹ On Manilius' imitation of Aratus, see esp. Romano 1979a: 27–36, Montanari Caldini 1993a and b, Salemme 2000: 79–90, and Abry 2007b; for his use of Cicero's translation of Aratus, see Liuzzi 1988. I shall return to both topics in 5.2. As mentioned above, the relationship of Germanicus to Manilius is controversial; there are clear parallels between their poems, but it is unclear who influenced whom (see further 5.2, fn. 29). On Manilius' possible use of Eratosthenes, see Romano 1979a: 30–3 and Salemme 2000: 86–90.

that Manilius, like other ancient astronomical writers, made use of a celestial globe.⁵²

Like Aratus, Manilius discusses the axis and poles, enumerates northern and southern constellations, and treats the various celestial circles. However, there are marked differences. Strikingly, the Roman poet begins his description of the sphere with the zodiac (1.256–74), which his Greek predecessor discusses as a distinct phenomenon only in the section on the celestial circles, having described the individual signs, without singling them out, among the other constellations. Manilius is here following general practice—most astronomical writers, other than those in the Aratean tradition, treat the zodiac separately⁵³—but he is also deliberately giving pride of place to the set of stars that, according to his astrological creed, plays the central role in the dispensation of fate: *e quibus et ratio fatorum ducitur omnis* ('from which comes the whole system of fate', 261).⁵⁴ Also unlike Aratus but in agreement with other sources, the poet begins his enumeration of the signs of the zodiac with Aries, the sign of the spring equinox (263–4), rather than with Cancer, the sign of the summer solstice (Arat. *Phaen.* 545).⁵⁵

After the description of the zodiac, Manilius explains at some length the concept of the world's axis (1.275–93), the imaginary line around which the outer sphere revolves and which runs from the northern celestial pole to the southern one, traversing the earth in the centre. He then launches into his treatment of the northern stars (1.294–372; see Figure 2), beginning with the circumpolar constellations (1.294–307), that is, constellations that circle the north pole and never set (cf. 1.275–8).⁵⁶ Which constellations are circumpolar depends on the location of the observer, but, viewed from the Mediterranean, they are

⁵² On celestial globes in antiquity (including that of the famous Atlas Farnese), see esp. Thiele 1898: 17–56, with discussion of Manilius on 45–7, as well as Künzl 2005.

⁵³ Cf. Thiele 1898: 45 and Romano 1979a: 27.

⁵⁴ Housman 1903–30 considers this line inauthentic, with the argument, among others, that, in Manilius' view, fate depends, not only on the zodiac, but on the other fixed stars and the planets as well. See, however, the convincing counter-arguments of Schwarz 1972, who demonstrates the central role of the zodiac in Manilius' astrology.

⁵⁵ On the practice of having the zodiac begin with Aries, which may be of Mesopotamian origin, and on the authors who follow it, see Bouché-Leclercq 1899: 129 + n. 1, van Wageningen 1921 *ad loc.*, and Liuzzi 1988: 125–6 and 1991–7 *ad loc.*

⁵⁶ All constellations discussed by Manilius are conveniently listed by Goold 1992: pp. xxiv–xxx. On the order of the poet's treatment (different from that of Aratus and others), see Thiele 1898: 46–7; generally on star catalogues in antiquity, see Abry 1995.



Figure 2. Stars of the northern hemisphere

Ursa Major, Ursa Minor, and Draco (also called *Anguis* or *Serpens*⁵⁷), and Manilius devotes some space to these perhaps most famous constellations of all. Already Homer mentions the Great Bear, ‘which they also call “Wagon”’ (*ἤν καὶ Ἀμαξαν ἐπίκλησιν καλέουσι*, *Il.* 18.487) and which, never setting, ‘does not take part in the baths of Okeanos’ (*ἄμμορός ἐστι λοετρῶν Ὠκεανοῖο*, 489); even today, the ‘Big Dipper’, the most prominent part of Ursa Major, is probably the one set of stars that most people are able to identify on the night sky. Given their close position to the north pole, the Bears were extremely useful for navigation, a fact alluded to by Manilius in 298–302, where the poet, making

⁵⁷ I shall typically be using modern names for the constellations. Since these are of Latin origin, they are in many cases identical to those employed by Manilius; where they are not, I refer to the Manilian designation in parentheses.

use of a famous topos, informs his readers that Helice, the Great Bear, is used by Greek sailors, while the Phoenicians, a famous seafaring nation, prefer to follow Cynosura, the Little Bear.⁵⁸

Manilius then proceeds to discuss the stars between the circumpolar constellations and the zodiac (1.308–72). The constellations he mentions include Hercules (not identified as such but called *Engonasin*, ‘the one on his knees’⁵⁹); Bootes; Corona Borealis; Lyra; Ophiuchus; Cygnus; Sagitta; Aquila; Delphinus; Pegasus (called simply ‘the horse’, *Equus*); Triangulum (called *Deltoton*); the group of Cepheus, Cassiopeia, Andromeda, and Perseus; Auriga (called *Heniochus*); Haedi; and Capella. Manilius then turns to the southern constellations (1.373–455), which adorn the sky that arches over the southern terrestrial hemisphere. This gives the poet another chance to mention the antipodes (377–86), ‘unknown tribes of men’ (*ignotaeque hominum gentes*, 378), who, however, for all their strangeness, have experiences of celestial phenomena similar to those of the people in the north. In fact, Manilius admits, their sky is just as large and well lit, and they have no fewer stars (382–3); the only thing that these southerners lack is Augustus, who is poetically described as a constellation that is visible only in the north (*sidus nostro qui contigit orbi*, ‘who has been allotted as a star to our sphere’, 385).⁶⁰

After this panegyric interlude, Manilius lists the southern constellations of which he is aware (see Figure 3): Orion; Canis Major (called *Canicula*), which contains Sirius, the brightest star in the sky; Canis Minor (called *Procyon*); Lepus; Argo; Hydra (called *Anguis*); Corvus; Crater; Centaurus; Ara; Cetus; Piscis Austrinus (called *Notius Piscis*); and Eridanus (called *Flumina*, ‘rivers’). However, he knows that there are many constellations too far south to be seen from the northern hemisphere. In particular, there must be stars that circle the south pole, and, in a striking move, the poet imagines that these are a mirror image of the circumpolar constellations of the north:

⁵⁸ On how the ancients used especially Ursa Minor to find the north pole, see Rihll 1999: 66–9, who points out that, owing to the precession of the equinoxes, the situation is different today (crucially, there was no actual pole star in antiquity).

⁵⁹ At Manilius’ time, the identification of the constellation with Hercules had not yet become standard, and there was some discussion over which character was represented by the ‘kneeling man’ (see, e.g., Arat. *Phaen.* 64–6 and *Astr.* 5.646). The description in the *Astronomica* wittily alludes to the controversy: *nixa uenit species genibus, sibi conscia causae*, ‘there follows a figure held up on one knee, keeping the reason to himself’ (1.315).

⁶⁰ On this passage, see further 4.2 below.

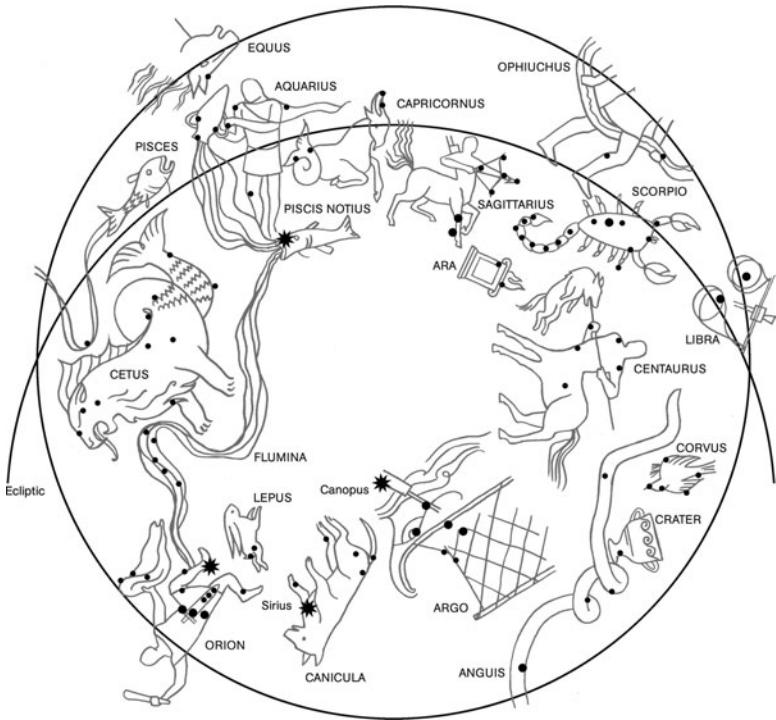


Figure 3. Stars of the southern hemisphere

aunders frontibus Arctos
 uno distingui mediasque claudique Dracone
 credimus exemplo. (1.451–3; cf. also 1.443–4)

By analogy, we believe that (two) Bears, facing away from each other, are divided and encircled by one serpent.

The Southern Bears do not appear in any other ancient text (Housman 1903–30 *ad loc.* remarks laconically, ‘Arctos australes qui commemorant praeter Manilium non noui’), and it is tempting to believe that the poet simply made them up.⁶¹ Even if Manilius found a reference to them in one of his sources, his elaboration on the topic attests to his

⁶¹ Pauer 1951: 16–24 speculates about a possible Hermetic source. However, it seems more likely that Manilius simply ‘resemanticized’ the term ‘arctic’ (from Gk. ἄρκτος ‘bear’), which had come to be used for both polar regions. Aristotle even refers to the antarctic as ‘the other bear’ (cf. τῆς ἐτέρας ἄρκτου, *Mete.* 362^a32) and Cleomedes speaks of ‘the zones beneath the bears’ (cf. τὰς ὑπὸ ταῖς ἄρκτοις ζώνας, 1.2.78 Todd)—that is,

wish to make the cosmos appear as orderly and symmetrical as possible. Given the regularity of the stellar sphere, there simply must be, at the south pole, an equivalent to the important circumpolar constellations in the north, since, as the poet puts it himself,

mens fugientia uisus
hunc orbem caeli uertentis sidera cursu
tam signo simili fultum quam uertice fingit. (1.453–5)

... the mind imagines that this (southern) sphere of heaven, which turns about stars that escape our vision, rests on similar signs just as it rests on a similar pole.

Generally speaking, Manilius' description of the stellar sphere—like that of his model Aratus—is an exercise in *uariatio*, an attempt to liven up what is, after all, a rather monotonous subject matter.⁶² Some constellations are introduced in the briefest possible manner (e.g., *tum Procyon ueloxque Lepus*, 'then (come) Procyon and the swift Hare [Lepus]', 1.412), others are discussed in greater detail, such as Corona Borealis (1.319–23), which, the poet points out, is made up of stars of different magnitude (*luce micans uaria*, 320), with one star (α CrB, known as Alphecca or Gemma) being much brighter than the others (320–2). In some cases, Manilius includes an account of the catasterism by which the constellation was supposedly established: thus, for example, Lyra is the lyre of Orpheus transposed to the sky (1.324–30) and Capella is the goat that first suckled Jupiter (1.366–70). Neither Manilius' descriptions nor his versions of the catasterisms always agree with the treatment found in Aratus (for details, see Romano 1979a: 27–33). On the whole, the Roman poet shows a somewhat greater interest in the mythological *aetia* behind the constellations, an interest paralleled in other Latin literature of the period, such as Ovid's *Metamorphoses* and *Fasti*, as well as Germanicus' adaptation of Aratus, which contains considerably more catasterisms than the original.⁶³ Interestingly enough,

both the arctic and the antarctic (cf. Bowen and Todd 2004: 43 n. 26). Presumably neither writer believed in the existence of actual ursine constellations at the celestial south pole, but loose terminology of this kind may have given rise to Manilius' (or his source's) speculations about the Southern Bears.

⁶² Cf. Quintilian's remarks on Aratus: *Arati materia motu caret, ut in qua nulla uarietas, nullus adfectus, nulla persona, nulla cuiusquam sit oratio* ('the subject matter of Aratus is without movement, since it contains no variety, no emotions, no characters, and not a single speech', *Inst.* 10.1.55).

⁶³ On catasterisms in the *Astronomica*, see Romano 1979a: 30–3, Salemme 2000: 75–104, and esp. Domenicucci 1993, who on pp. 212–13 with nn. 5–12 lists all stars myths told or alluded to in the poem. On catasterisms in Germanicus, see Possanza 2004, esp. 169–217.

Manilius himself appears to criticize this contemporary craze for catasterisms in a passage in the proem to Book 2 (25–38), where the poet speaks disapprovingly of astronomical writers *quorum carminibus nihil est nisi fabula caelum* ('in whose songs the sky is nothing but a story', 37), implying that there is more to the study of the universe than entertaining stories about people, animals, and objects turned into constellations.⁶⁴ It is yet another sign of Manilius' willingness to participate in different, even contradictory, discourses at different points in his poem that the disapproval of catasterisms expressed in Book 2 does not prevent him from going into 'catasterism mode' himself in the different context of Book 1, as well as at other points in the *Astronomica*, especially in Book 5.

Having finished his description of the constellations, Manilius points out that their shapes are just outlines and that they are not fully filled up with light, since, if that were the case, there would be too many stars in the sky and the firmament would go up in flames (1.456–68). He then gives the helpful hint that the constellations can be made out best when a full Moon is shining: this way, the minor, nameless stars are obscured but the outlines of the constellations easily apparent (1.469–73).⁶⁵ This advice (a topos in antiquity⁶⁶) may well strike as ironic modern readers, whose problem in identifying the constellations is often not that they see too many stars but that they cannot see enough and who, rather than needing interference from an additional strong source of light, are suffering instead from light pollution.

At this point in Book 1, Manilius embarks on a long digression (1.474–538) on the regularity and unchanging nature of the movements of the heavenly bodies, which he takes as a sign that the cosmos is governed by a divine force; I have discussed large parts of this section in 2.1. It is followed by an exposition of the dimensions of the two-sphere universe (1.539–60): Manilius explains that the distance between the earth (the inner sphere, but treated here as though it were but a point) and the firmament (the outer sphere) is the equivalent of the length of two signs of the zodiac—that is, one-sixth of the circumference of the outer sphere (since the circumference of a circle equals, more or less, three times its diameter). We here see at work what A. E. Housman

⁶⁴ The issues raised by this passage are discussed further in 3.4 and 5.2.

⁶⁵ On the whole passage 1.456–73 and its intertextuality with Aratus, see Montanari Caldini 1993*b*.

⁶⁶ See Kidd 1997 *ad Arat. Phaen.* 78; cf. also *Astr.* 5.721–33.

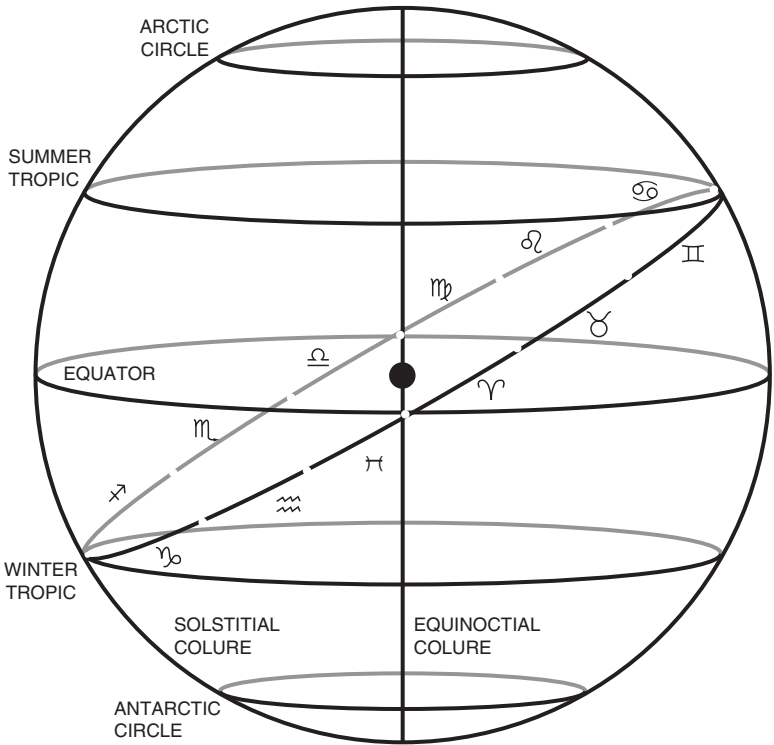


Figure 4. The celestial circles

sarcastically calls the ‘brightest facet of [Manilius]’ genius’, namely, his ‘eminent aptitude for doing sums in verse’ (1903–30: 2, p. xiii).

Manilius then turns to his last great astronomical topic, the celestial circles (see Figure 4). First, there are the five parallels, imagined circles on the outer sphere that run parallel to the celestial equator (1.566–602): the arctic and antarctic circles that surround the celestial north and south poles;⁶⁷ the tropics of Cancer and of Capricorn, which run through the solstitial points, that is, the northernmost point reached by the Sun at the summer solstice (which is in Cancer) and the southernmost point

⁶⁷ Originally, the arctic and antarctic circles were defined as enclosing the circumpolar stars, which meant that they were different from latitude to latitude. They were standardized by Posidonius (early 1st c. BC), though Manilius does not follow Posidonius’ system and uses instead the actual arctics as they obtain at the latitude of Rhodes. See Goold 1992: p. xxxii and Feraboli, Flores, and Scarcia 1996–2001 *ad loc.*

reached by it at the winter solstice (which is in Capricorn); and the equator itself. Manilius describes the five parallels moving from north to south and gives the distances between them, using Eudoxus' division of the circle into 60° (unlike everywhere else in his poem, where he uses the standard 360° system). Thus, the arctics are 6° from their respective poles, the tropics are 5° from the arctics, and this leaves 4° as the distance between each tropic and the equator.

The next two circles are the so-called colures (1.603–30), great circles that run through the poles. The equinoctial colure passes through the two equinoctial points in Aries and Libra, the solstitial colure through the two solstitial points in Cancer and Capricorn. Manilius describes their paths in detail, mentioning the constellations that they traverse on their way.

While these circles are all fixed, there are two movable ones that change according to the observer's location (1.631–3). The first is the meridian (1.633–47), which, coming from the north pole, divides in half the visible arch of the sky, thus defining the midday point. The second is the horizon (1.648–65), which defines the part of the sky observable by each individual from his or her specific vantage point.

Finally, Manilius turns to two oblique circles that—unlike the preceding ones—are not purely conceptual but can actually be seen on the firmament and also do not just consist of a line, but have real breadth. The first is the zodiac, the all-important fulcrum of Manilius' astrological system. This is defined as the band of twelve signs that serves as the path of the Sun, Moon, and other planets:

fulgentia signa
alter habet, per quae Phoebus moderatur habenas
subsequiturque suo solem uaga Delia curru
et quinque aduerso luctantia sidera mundo
exercent uarias naturae lege choreas. (1.667–71)⁶⁸

The one (circle) contains the shining signs through which Phoebus guides his reins, and wandering Delia follows the Sun in her chariot, and the five other stars—struggling against the firmament—exhibit their manifold dances according to the law of nature.

In the geocentric two-sphere universe, as we have seen, the sphere of fixed stars revolves around the static central earth from east to west in the course of one day and one night. Between the outer and the inner

⁶⁸ On the image of the 'cosmic dance', applied to the planets already by Plato (*Ti.* 40c3–4), see the monograph of Miller 1986.

sphere, the planets (including the Sun and the Moon) likewise circle the earth from east to west in the course of one day and one night; this explains, for example, why the Sun rises every morning and sets every evening.⁶⁹ However, matters are more complicated than this. While the constellations on the outer sphere are ‘fixed’—that is, never change their position vis-à-vis one another—the planets by definition are ‘wanderers’ (this is the meaning of Gk. *πλανῆται*; cf. Lat. *stellae errantes*, ‘wandering stars’). Thus, they will, from one day to the next, appear slightly displaced in relation to the background of the firmament. For example, at the time of the spring equinox, the Sun is ‘in’ the constellation of Aries—that is, Aries is not visible from earth, since the Sun is, as it were, right in front of it.⁷⁰ About thirty days later, however, the Sun will have left Aries and will now be in Taurus; another thirty days later, it will appear in front of Gemini. In the course of one year, the Sun—all the while rising and setting every day—thus moves through all twelve signs of the zodiac, describing a circular path across the firmament from west to east that is known as the ecliptic. Crossing the equator at an angle of about 23.5°, the ecliptic is not perpendicular to the world’s axis, but slanted. Manilius describes its course:

hunc tenet a summo Cancer, Capricornus ab imo,
bis recipit, lucem qui circulus aequat et umbras,
Lanigeri et Librae signo sua fila secantem.
sic per tris gyros inflexus ducitur orbis. (1.672–5)

Cancer limits it at the top, Capricorn at the bottom, and the circle that makes equal light and darkness [the equator] receives it twice, as it cuts its line in the signs of the woolly one [Aries, the Ram] and Libra. Thus, the oblique circle runs through three circles.

In other words, the Sun reaches its northernmost point on the ecliptic in the sign of Cancer, at the time of the summer solstice; at the winter solstice, it is at its farthest point in the south, in the sign of Capricorn. At the equinoxes, it crosses the equator, in the signs of Aries (spring) and Libra (autumn), respectively. The ecliptic thus touches or crosses three

⁶⁹ According to today’s heliocentric cosmology, all these phenomena are due to the fact that the earth itself revolves around its own axis in the course of twenty-four hours.

⁷⁰ This was true at the time of Manilius, but, owing to the precession of the equinoxes, today the Sun is in fact at the spring equinox positioned in the constellation Pisces (cf. Evans 1998: 245). However, this need not concern us further: first, this book deals with the state of affairs in the period of the *Astronomica*’s composition; second, even today it can be truthfully said that, at the spring equinox, the Sun is ‘in Aries’ if it is clear that what is meant is not the actual constellation, but the standardized zodiacal sign, i.e., the first 30° of the zodiac.

of the parallel celestial circles, extending from the tropic of Cancer to that of Capricorn (the name ‘tropic’, from Gk. *τρέπω*, ‘turn’, derives from the fact that the tropics constitute the ‘turning points’ of the Sun at the two solstices) and cutting across the equator.

But it is not only the Sun that moves along the zodiac. The same is true for the other planets, which all make their path through the twelve signs, albeit at different speeds: the Moon completes its orbit in approximately twenty-seven days, Saturn takes about twenty-nine years. They do not follow the route of the ecliptic exactly, but, moving all more or less on the same plane, they never veer too far above or below it. The zodiac is thus defined as a band of twelve constellations cut in half lengthwise by the ecliptic; its width is such as to contain the paths of all planets:

bis sex latescit fascia partes
quae cohibet uario labentia sidera cursu. (1.681–2)

The band that contains the stars that wander on their varying courses has a width of 12°.

In the ancient two-sphere universe, the planets thus participate in a twofold movement. They are part of the daily east–west rotation of the outer sphere; at the same time, they move, more slowly, from west to east against the direction of the firmament, changing their position vis-à-vis its constellations.⁷¹ Greek and Roman writers were fascinated by this phenomenon, striving to find poignant ways to illustrate it. Thus, for example, Vitruvius writes:

si in rota, qua figuli utuntur, impositae fuerint septem formicae canalesque totidem in rota facti sint circum centrum a minimo ad crescentes ad extremum, in quibus hae cogantur circinationem facere, uerseturque rota in alteram partem, necesse erit eas contra rotae uersionem nihilominus aduersus itinera perficere. . . . similiter astra nitentia contra mundi cursum suis itineribus perficiunt circuitum, sed caeli uersione redundationibus referuntur cotidiana temporis circumlatione. (9.1.15)⁷²

⁷¹ Again, in our heliocentric universe, these phenomena find alternative explanations: the apparent daily rotation of these stars is due to the rotation of the earth; as for the behaviour of the ‘planets’, the Moon indeed circles the earth in the course of one month, but it is the earth that revolves around the Sun in the course of one year, not vice versa, and, moving more or less on the same plane as the earth, the remaining planets orbit the Sun as well.

⁷² The potter’s wheel as an illustration of heavenly rotation is found also in Nigidius Figulus *apud* August. *De Civ. D.* 5.3, Cleomedes 1.2.17–19 Todd, and Achilles Tatius, *Isag.* 48.16–20 Maass and *Comm.* 97.33–98.1 Maass; cf. 3.3, fn. 71 below. An equivalent modern comparison is found in Beck 2007: 23 and 27–8, who likens the planets to seven hands turning on a clock face, while the clock face itself is rotating in the opposite direction.

If seven ants were placed on a potter's wheel, and the same number of grooves were made on the wheel around the centre, increasing in circuit from the smallest to the outermost one, and the ants were forced to walk in circles inside the grooves while the wheel turned in the other direction, by necessity, they would complete their journeys against the direction of the wheel's turning. . . . Similarly, the planets struggling against the movement of the firmament complete their orbits in their wanderings, but by the revolution of the outer sphere they are carried backwards in the rotation that happens every day.

Another typical way of describing the west–east movement of the planets, which runs counter to that of the outer sphere, is to depict it as a struggle. Thus, Manilius in our passage presents the planets as *aduerso luctantia sidera mundo* (670; cf. Vitruvius' *astra nitentia contra mundi cursum*⁷³). This widespread image is connected to two typical ways of conceiving of the planets: first, these stars (which carry, after all, the names of gods) are often personified, whence they can be depicted as engaged in such activities as 'wandering' and 'struggling'; second, the planets are typically imagined as moving directly among the constellations of the outer sphere (hence such expressions as 'the Sun is "in" Aries'), through which they have to make their toilsome way—even though, in the scheme of the two-sphere universe, they are really positioned between the earth and the outer sphere, far removed from both.

After his treatment of the zodiac, Manilius turns to his final celestial circle, the Milky Way (1.684–804). Holding no astronomical significance, this imposing phenomenon nonetheless clearly fascinates the poet, who dedicates an extensive discussion to it. After describing the circle's path (684–700) and discussing its appearance and visibility (701–16), he speculates about its origins, mentioning numerous theories (717–57), before settling on the idea that it serves as a dwelling place for blessed souls after their death (758–804). This belief in a happy afterlife in the Milky Way, often associated with the teachings of Pythagoras, was made famous in Rome by Cicero's *Somnium Scipionis*; it provides Manilius with the opportunity for a splendid digression in which he enumerates first the Greek and then the Roman heroes who presumably dwell on these celestial Isles of the Blessed. The passage ends with yet another homage to Augustus, who is likewise promised astral

⁷³ Cf. Le Boeuffe 1987 s.vv. 'adversus (c)' and 'niti (a)', who lists further passages in Latin authors.

immortality, albeit in an even more elevated location, above the Milky Way, in the very home of the gods (799–804).⁷⁴

Manilius has now finished his portrait of the two-sphere universe,⁷⁵ but, before he turns to the astrological bulk of his work, there is still one celestial phenomenon that he deems worthy of discussing in depth, the topic of comets (1.809–926).⁷⁶ Given the seemingly erratic appearance of these stars, the Greeks and Romans did not quite know what to make of them, and Manilius provides three possible explanations of their origin: they might be fiery exhalations of the Sun (817–66; this passage also contains a detailed list of different types of comets); they might be lesser stars that are attracted and subsequently released by the Sun (867–73); or they might be portents of impending doom, designed for this very purpose by a merciful divinity (874–926). Manilius fastens on the last possibility, expounding on it at some length. The portentous nature of comets was commonplace in Roman society, where omens of all sorts, including celestial phenomena, had been observed and interpreted for centuries, and, as an astrologer, Manilius was probably particularly open to the idea that fate manifests itself in the sky in this way as well.⁷⁷ However, the suggested role of the comets as ‘signs’ (*signa*, 1.875) of calamity does not sit well with the view the poet espouses elsewhere, namely, that the heavenly bodies are actual causes of terrestrial events (cf. 3.1 below); the implication that, if humans were able to read the signs correctly, they could avoid the disasters foretold⁷⁸ likewise does

⁷⁴ For the idea of an afterlife in the Milky Way, see further 4.2 and 6.2. On Augustus and his anticipated apotheosis, see 4.2.

⁷⁵ In the manuscripts, the discussion of the Milky Way is followed by four lines on the planets (1.805–8), which do not seem to belong here and which individual editors have transposed to various places. These lines—their position and their content—are the topic of 2.4.

⁷⁶ Note that in this section Manilius, like other ancient authors, lumps together actual comets, meteors, and purely atmospheric ‘lights in the sky’ (cf. Bartalucci 1958). For the historical comets mentioned in the passage, see Ramsey 2006: Index locorum s.v. ‘Manilius’.

⁷⁷ Comets occasionally play a role in astrology proper, where their behaviour is particularly associated with that of the planets (see Bouché-Leclercq 1899: 357–62, Gundel 1922: 1153–63, and Keyser 1994), but this aspect is not discussed by Manilius. Montanari Caldini 1989: 2–3 (whose article treats the passage on the comets in detail) suggests that this failure on the part of the poet has to do with his comparative neglect of the planets in general (see immediately below in 2.4, as well as 3.5) and with the fact that comets were held to portend misfortune for whole communities or even the entire world, whereas Manilius is largely interested in genethliological astrology, i.e., with the fate of individuals as determined by the constellation of heavenly bodies at their birth.

⁷⁸ This is strongly hinted at in *saepe domi culpa est: nescimus credere caelo* (‘often the fault lies at home: we do not know to trust the sky’, 1.905), which seems to imply that, if human beings only picked up on the warnings provided by the heavens, there would be no man-made disasters, such as civil war.

not agree with the determinism otherwise dominant in the *Astronomica*. We thus have here another Manilian self-contradiction, which might be explained with the poet's momentary adoption of a popular, non-scientific point of view (as in his treatment of the antipodes) or otherwise his following of a specific source.⁷⁹ Most likely, though, Manilius' main reason for concluding the first book of his *Astronomica* with a discussion of the ominous nature of comets is that it affords him the opportunity to enter into an intertextual dialogue with his two great predecessors in the field of Latin didactic poetry, Lucretius and Vergil.⁸⁰

The bad things foretold by comets include failed crops (877–9), disease (880–95), war (896–904), and civil strife (905–26). Apropos of the topic of disease, Manilius includes a short vignette of the plague in Athens during the Peloponnesian War (884–91), thus alluding to the famous finale of the sixth book of *De rerum natura*. The description of the Civil Wars (the battles of Philippi and Actium are mentioned, as is Augustus' campaign against Sextus Pompeius) instead harks back to the end of the first *Georgic*. There, Vergil likewise discusses unfavourable portents, including comets (*G.* 1.488), that accompanied the death of Caesar and the ensuing Civil War, in particular the battle of Philippi. Manilius has thus clearly constructed the end of his first book to be parallel to this first finale of the *Georgics*; however, viewing matters from a different historical vantage point, he is able to end on a rather different note. Writing in the late 30s BC, Vergil is still caught up in the Civil Wars, and, even though he is praying to the gods and asking them to support Octavian (*G.* 1.500–4), his tone is one of despair: the book famously ends with a picture of the world at war, personified in the image of the charioteer who can no longer control his chariot (512–14). Fifty years later, Augustus' reign has brought inner peace to Rome, and Manilius can thus finish with the image of Discordia chained and incarcerated (the description is reminiscent of Verg. *Aen.* 1.294–6⁸¹)

⁷⁹ The latter is the suggestion of Montanari Caldini 1989: 20–30, who discusses the issue in detail, pointing to a possible Hermetic origin of Manilius' cometary theory.

⁸⁰ See Effe 1977: 109; detailed discussions of the passage are found in Lühr 1973 and Landolfi 1990c.

⁸¹ The fact that Discordia is placed *in carcere* ('in prison', 924) and wears *aeternos... frenos* ('eternal bonds; lit. reins', *ibid.*) constitutes a clever transposition-cum-reversal of the Vergilian chariot simile: there, the teams are breaking out of the starting barriers (*carceribus*, Verg. *G.* 1.512) and no longer obey the reins (cf. Bühler 1959: 493–4 and Feraboli, Flores, and Scarzia 1996–2001 *ad loc.*).

and the hope that Rome and the emperor (whose apotheosis is anticipated) will both remain invincible (*Astr.* 1.925–6).⁸²

2.4. THE PUZZLE OF THE PLANETS I

As mentioned before, the manuscripts of the *Astronomica* contain, after the description of the Milky Way and before the discussion of the comets, four lines about the seven planets:

sunt alia aduerso pugnancia sidera mundo,
 quae terram caelumque inter uolitantia pendent,
 Saturni, Iouis et Martis Solisque, sub illis
 Mercurius Venerem inter agit Lunamque uolatus. (1.805–8)

There are other stars, fighting against the firmament, which are suspended, moving between earth and sky: those of Saturn, Jupiter, Mars, and the Sun; and below them Mercury directs his course between Venus and the Moon.

As scholars noted long ago, these lines are awkwardly placed: after the long discussion of celestial circles, it makes little sense to continue, ‘there are other *stars*’. It is thus likely that the passage originally stood somewhere else. Scaliger 1600 places it after 812, where it fits well, since Manilius has just announced that, before turning to astrology proper, he will ‘fill in the appearance of the universe’ with more detail (*implenda est mundi facies*, 811). This could easily be followed by the mention of the planets and then the discussion of the comets; there would even be a nice parallelism between *sunt alia . . . sidera* (804) and *sunt etiam raris orti natalibus ignes* (‘there are also fires born on random birthdays’, 813). Finally, the introductory passage 809–12 would make better sense if the following ‘filling-out’ of the portrait of the universe did indeed not consist just of the treatment of the comets.⁸³

Alternatively, Housman 1903–30: 5.133 suggests that the lines belong after 1.538, a transposition adopted by Goold 1992 and 1998. Thus, the discussion of the planets would come immediately after the

⁸² Interestingly, though, Manilius uses present subjunctives throughout the passage, making it sound like a prayer similar to that at the end of *Georgics* 1. The poet is, as it were, taking on the Vergilian role of a concerned Roman at the time of the Civil Wars themselves, all the while knowing, with the benefit of hindsight, that his prayer will be fulfilled. I return to this passage in 4.2.

⁸³ Scaliger’s transposition is accepted by Housman 1903–30: 1.72, Fels 1990, and Feraboli, Flores, and Scarcia 1996–2001, as well as Breiter 1907–8 and van Wageningen 1915 and 1921, who, however, both consider lines 807–8 spurious.

description of the fixed stars, which is wrapped up in the summarizing passage 1.532–8. The lines on the planets would follow logically in this context; they would also be in the same position—between fixed stars and celestial circles—as the equivalent passage about the planets in Aratus (on which see below).

Both scenarios have their attractions, and we can assume with fair certainty that the four lines were originally found in one of these two places.⁸⁴ However, the question of its position is not the only problem with this short passage. What is striking is the extremely limited space Manilius allots the planets and the scarcity of information he provides about them. All that we learn is that these stars move between heaven and earth in a direction contrary to that of the outer sphere and that their order from top to bottom is Saturn, Jupiter, Mars, Sun, Venus, Mercury, and Moon.⁸⁵ This is not a lot of information about what is, after all, a major feature of the cosmos (contrast the disproportionately long discussion of the comparatively unimportant comets), and it is even more surprising in light of the central role that the planets play in astrology. As will be discussed in greater detail in the following chapter, the main task of the astrologer is to determine the exact position of the planets relative to the signs of the zodiac at a given moment and to interpret its meaning. Without planets, there is very little scope for astrology, and it is thus surprising that Manilius gives them such short shrift in his description of the universe. To understand, perhaps, why he is doing so, we need to take yet another look at the cosmos as it was perceived in Manilius' time.

The ancient two-sphere universe is beautiful in its simplicity, with the tiny stable earth in the middle and the immense firmament revolving around it with the regular motion that, as we have seen, appeals so much to Manilius. However, this simple construction is but the stage for a more complicated drama, featuring seven players, the planets, which circle the earth in the vast space beneath the outer sphere, moving at a slow pace on a path that coincides with the zodiac on the firmament that

⁸⁴ A third proposal, put forth by Waszink 1955: 212–14 and adopted by Liuzzi 1991–7, according to which the lines originally came after 1.274—i.e., after the description of the zodiac—is less convincing, since the mention of the planets would then have occurred in the middle of the discussion of the fixed stars.

⁸⁵ Within the scheme of the two-sphere universe, the exact order of the planets was not uncontroversial. Manilius here adopts a system often associated with Pythagoras, which places the Sun (the most important of heavenly bodies) in the middle; this ordering finally became standard, being accepted by, among others, Ptolemy (see Evans 1998: 347–9).

serves as their backdrop. Of the seven, the Sun and the Moon behave in a way that is somewhat complex but whose details—changes of the seasons, phases of the Moon, eclipses—were nevertheless well understood by the time of the Roman Empire. The other five planets, however, presented a puzzle.⁸⁶ For the most part, they were observed to move, just as one would expect, slowly along the zodiac from west to east. Sometimes, though, they appeared to halt on their path for a considerable period of time (a phenomenon known as station) or even, for a short period, to retrace their steps eastward and thus describe a kind of loop (a phenomenon known as retrogression); during retrogression, they appeared more brilliant, which seemed to indicate that at this time they were closer to earth.

The seemingly erratic behaviour of the planets presented an enormous challenge to the two-sphere universe. How could the observed motion of these stars be reconciled with the generally accepted cosmological model? According to Simplicius, Plato had already alerted his students to the problem, exhorting them to find solutions:

Πλάτωνος . . . πρόβλημα τοῦτο ποιησαμένου τοῖς περὶ ταῦτα ἔσπουδάκοσι, τίνων ὑποθεισῶν ὀμαλῶν καὶ τεταγμένων κινήσεων διασωθῆ τὰ περὶ τὰς κινήσεις τῶν πλανωμένων φαινόμενα. (Simpl. *in Cael.* 488.21–4 Heiberg)

Plato set the following problem for those working on these matters: by the assumption of which regular and orderly movements might the phenomena concerning the movements of the planets be saved?

‘Saving the phenomena’ (*σῶζειν τὰ φαινόμενα*), that is, finding a geometrical explanation for the observational data concerning the planets, became the main endeavour of ancient astronomy. The development of ever more intricate planetary theories is a fascinating chapter in the history of science, even more fascinating for the fact that the whole undertaking ultimately proved futile. After 2,000 years of ingenious hypotheses and complicated calculations, astronomers like Copernicus, Kepler, and Galileo finally realized that the basic premisses of the geocentric two-sphere universe simply did not hold and that the phenomena could be saved only by making a momentous adjustment: placing the Sun in the middle of the system and having the earth revolve around it as a planet.

It was Ptolemy who, in the second century AD, devised the most detailed theory of planetary motion and whose works lived on to inform

⁸⁶ Cf. Kuhn 1957: 45–50 and Evans 1998: 289–96.

Islamic and Western astronomy up to the early modern period. However, already by the time of Manilius, numerous hypotheses had been put forth to account for the behaviour of the planets.⁸⁷ Thus, Eudoxus (4th c. BC) endeavoured to explain the complex movements of the planets with a system of homocentric spheres (see the source texts in Heath 1932: 65–70). In Eudoxus' theory, each planet circles the earth while being positioned on a sphere whose axis is suspended within a larger sphere, which in turn nests within yet another sphere; in the case of the planets other than the Sun and Moon, there is an additional fourth sphere. All these spheres revolve around the same centre, the earth, but on different axes and in different directions. This way, each planet participates in a number of different movements at the same time, the sum of which accounts for the complexity of its observed behaviour, especially the apparent retrogressions. However, as critics soon pointed out, Eudoxus' model does not explain the planets' varying brilliance, since an object set on a sphere that is centred on the earth is always at the same distance from it.

A more promising theory was developed by Apollonius of Perga (3rd/2nd c. BC), taken up by Hipparchus and others, and later perfected by Ptolemy. The apparent motions of the planets can be explained if we assume that each planet does not revolve around the earth directly, but rather circles, in a narrow orbit, around a point on a larger circle that in turn circles the earth. In technical terms, the planet moves in a so-called epicycle around a point on the larger circle, the so-called deferent—which accounts for the fact that from the earth it sometimes appears to move backward (owing to the motion of the epicycle) while nevertheless on the whole being steadily carried forward (owing to the motion of the deferent). The fact that the planet's distance from the earth is not constant additionally explains its variation in brilliance. This model can be further refined by having the deferent revolve not around the earth directly (as the outer sphere is imagined as doing) but around a point somewhat removed from the centre; the assumption of such eccentric planetary orbits makes it even easier to account for all the irregularities of planetary movement.

In addition to these geometrical explanations for the seemingly erratic movements of the planets, there was also an astrological one, which we find reported in authors close in time to Manilius: Vitruvius (9.1.6–14) and Pliny the Elder (2.59–78), as well as, perhaps,

⁸⁷ On ancient planetary theory, see Kuhn 1957: 45–77 and Evans 1998: 289–443.

Germanicus.⁸⁸ According to this so-called radio-solar theory, the stations and retrogressions of the five planets other than the Sun and the Moon are caused directly by the rays of the Sun and occur when the planet finds itself in certain positions vis-à-vis the Sun, in particular, when it is in the same trigon—an astrological term that will be discussed in the following chapter and that means, in this case, that the planet is positioned on the zodiac at a 60° angle from the Sun or, in other words, at another corner of an imagined equilateral triangle inscribed in the zodiac. Since in this scenario, the slowing-down and turning-around of the planets actually takes place for real (instead of being only an apparent motion that can be explained otherwise), the radio-solar theory clearly would not have qualified as ‘saving the phenomena’ in the eyes of Plato, who insisted that the heavenly bodies must stick to the ‘regular and orderly movements’ (see the quotation from Simplicius above) whose assumption was so central to the ancient idea of the *kosmos*. However, the theory was clearly around in the days of the early Empire, and one may assume that Manilius would have known about it.⁸⁹

Still, the poet does not talk about the radio-solar theory explicitly and does not mention the spheres of Eudoxus or the epicycles and deferents of Hellenistic astronomy either. In fact, as we have seen, he has hardly anything to say about the planets at all. It has been suggested that perhaps the lacuna in Book 5 contained a discussion of the wandering stars, that parts of the poem (possibly devoted to planetary theory) have been lost, or that Manilius simply did not finish his work (and thus never got around to the planets). None of these hypotheses can be proved (I shall return to the topic in 3.5), but even if we allow for the possibility that the poet treated the planets in his later, astrological books, it is still striking how he marginalizes them in his astronomical portrait of the universe, where they should by rights play an important role. We have to ask ourselves, why is he doing so?

Obviously, the astronomical planetary theories sketched out above are extremely complicated, with their intricacies being of interest only to specialists and unlikely to become general knowledge.⁹⁰ Authors of

⁸⁸ See Cumont 1909: 7–11 and Montanari Caldini 1973: 188–93 on German. fr. 6.

⁸⁹ Montanari Caldini 1989: 4–17 plausibly suggests that Astr. 1.867–73 shows an awareness of the radio-solar theory, which was used to explain the behaviour of not only the planets, but the comets as well.

⁹⁰ Cf. the remarks of Kuhn 1957: 54 (‘too mathematical for most laymen to understand’) and Le Boeuffe 1987 s.v. ‘errantes (stellae)’ (‘un domaine qui restera toujours étranger à l’expérience populaire’).

popular prose treatises on astronomy thus for the most part refrained from entering into the matter in any great detail (cf. Evans and Berggren 2006: 8 + n. 17), and as for poetry, even a writer like Manilius who delighted in ‘doing sums in verse’ would probably have thought twice before tackling such an unpoetic topic as epicycles and deferents. If, in the opinion of a critic like Quintilian, a simple description of the universe was already an unpromising undertaking on account of the aridity of the subject matter (see fn. 62 above), a treatment of the planets in verse might well have appeared to an ancient audience downright impossible. As a matter of fact, Aratus himself dedicates but eight lines to the topic (*Phaen.* 454–61), and, after mentioning that the planets ‘move about’ (unlike the fixed stars) and have wide orbits, and that it takes a long time for them to return to their original conjunction (an allusion to the concept of the ‘Great Year’, the period it takes for the entirety of heavenly bodies to come back to the very same relative positions from which they originally set out), the poet excuses himself from further treatment of the matter:

οὐδ’ ἔτι θαρσαλέος κείνων ἐγώ· ἄρκιος εἶην
ἀπλανέων τά τε κύκλα τά τ’ αἰθέρι σήματ’ ἐνισπεῖν. (460–1)

I am not daring enough for this topic. May I be competent to speak of the circles of the fixed stars and of the signs in the sky.

A scholiast on Aratus ventures a guess as to the reason for the poet’s refusal:

ἴσως οὐπω διηκριβώσατο ταῦτα, ἐπεὶ μηδὲ ῥάδια ἦν ἐντιθέναι εἰς ποίησιν· ἐχώρει γὰρ ἂν εἰς ἀριθμούς καὶ μέτρα καὶ λεπτά καὶ μόρια. (430.7–9 Maass)

Perhaps he did not treat these things in detail since it would not have been easy to put them into verse: for it would come to numbers and measurements and divisions of degrees and fractions.

Aratus—or so it seemed to the scholiast—was smart enough to realize that the planets could not be treated adequately in poetic form.⁹¹ And perhaps Manilius was of the same opinion. However, even at his time, not everybody felt the same way.

⁹¹ It should be kept in mind, though, that Aratus was adapting a prose treatise, Eudoxus’ *Phaenomena*, and that his choice of topic may reflect what he found in his original rather than his own preference. Eudoxus, of course, was also the inventor of the system of homocentric planetary spheres, but he presumably did not discuss this theory in his description of the stellar sphere, the book that Aratus adapted, but rather in a separate work called *On Speeds* (for the title, see *Simpl. in Cael.* 494.12 Heiberg).

In his Latin version of the *Phaenomena*, Germanicus typically follows Aratus very closely. It is thus striking how the Roman prince chooses to adapt the Greek poet's *recusatio* concerning the planets:

hoc opus arcanis si credam postmodo musis,
tempus et ipse labor, patiantur fata, docebit. (German. *Arat.* 444–5)

The fates permitting, time and my work itself will show whether I shall later entrust this topic to the secretive muses.

Doing away with Aratus' modesty topos, Germanicus does not even mention that he is not, for the moment, saying more about the planets (though, following Aratus, he indeed is not). Instead, he confidently keeps open the possibility that he will treat the topic in the future. As it happens, our manuscripts of Germanicus contain, after 725 lines that correspond to Aratus' lines 1–757 (Germanicus apparently did not adapt the second part of Aratus' poem, on the weather signs), five additional fragments that do not have an equivalent in the Hellenistic poet's work. These fragments are of a clearly astrological character and are largely concerned with the planets, with fr. 2 describing their different orbits and frs. 3 and 4 discussing the influence on the weather that individual planets have when they find themselves in particular signs of the zodiac. While the authenticity of the fragments is generally accepted, it is unclear what their status is. Are they part of a different work of the poet (the one announced in lines 444–5 of his adaptation of Aratus)? Are they unedited scribbles left behind at their author's untimely death? Or did Germanicus replace Aratus' section on weather signs with an astrological discussion more in keeping with contemporary ideas about meteorological phenomena?⁹² Whatever the answer may be, it is clear that Germanicus had no hesitation in treating the planets in verse and did so quite possibly at considerable length, if our 222 lines of fragments are part of a larger unit.

Latin prose authors, too, engage with the topic (cf. Bakhouché 1996: 249–80). In the century before Manilius, Vitruvius dedicates the first chapter of his ninth book of *De architectura* to a description of the universe, discussing primarily the planets and mentioning the radio-solar theory about their retrogressions and stations. Later in the first century AD, Pliny the Elder, in the second, cosmological book of his monumental *Natural History*, treats at length the planets' complex

⁹² This is the theory of Montanari Caldini 1973, who discusses in detail the astrological aspects of Germanicus' work (see also Montanari Caldini 1976 and 1987a).

motions (59–78). To the despair of his commentators, Pliny's discussion is extremely confused (cf. Beaujeu 1950: 146–66), but he does make mention of the model of eccentric circles, while otherwise giving pride of place to the radio-solar theory.

None of these Latin works is scientifically sophisticated and none enters into the technical details of Hellenistic astronomy. Still, they at least venture to describe (and sometimes even explain) salient features of planetary movement, from the orbits of these stars and the lengths of their revolutions to their irregular behaviour in terms of stations and retrogressions. It is thus even more surprising that we find nothing like this in Manilius. We may grant that it would have been impossible for him to discuss the motions of the planets in such a way as to enable his readers to calculate their position at any given moment (a crucial prerequisite of astrology): for one thing, as Evans 1998: 343–4 points out, the geometric models mentioned above do not necessarily allow for exact calculation of planetary position (which was usually determined using purely mathematical methods taken over from the Mesopotamians); and, at any rate, practising astrologers hardly ever did their own calculations from scratch, relying instead on tables, so-called ephemerides, prepared by astronomers (modern astrologers use computer programs). Still, one might have thought that the Latin poet would at least have provided some basic information about these most mysterious heavenly bodies, whose placement along the zodiac does, after all, play a crucial role, according to Manilius' astrological creed, in determining the fate of mankind.

I suggest that Manilius purposely ignores the planets as best as he can since they constitute an embarrassment for him. As we have seen again and again, the poet is a fervent believer in the idea of the *kosmos*, a universe that is, above all, orderly and regular. The behaviour of the planets, however, beyond their basic eastward revolution along the zodiac, is anything but orderly and regular, and it therefore does not fit into Manilius' picture of the *mundus*. Perhaps the Roman sensed that the planets were a danger to the two-sphere universe, a time bomb, as it were, that was ticking away and would ultimately blow up the entire system; perhaps he was just frustrated by the complexity of their motions, which he thought he could not adequately describe. Of course, we have no idea what 'Manilius' actually 'felt', but, if I were to venture a guess, I would say that he simply did not like the planets, which sorely lacked the qualities that the poet so admired in the fixed stars:

non uarios obitus norunt uariosque recursus,
 certa sed in proprias oriuntur sidera luces
 natalesque suos occasumque ordine seruant.
 nec quicquam in tanta magis est mirabile mole
 quam ratio et certis quod legibus omnia parent. (1.475–9)

They do not know different settings and different returns, but as certain stars, they rise to their proper location, and orderly, they keep to their birthdays and settings. And nothing is more remarkable in this great crowd than its rationality and the fact that everything obeys fixed laws.

Contrast Aratus' wary description of the planets, which focuses on the inability to 'pin down' these 'wanderers':

οὐκ ἂν ἔτ' εἰς ἄλλους ὁρόων ἐπιτεκμήραιο
 κείνων ἤχι κέονται, ἐπεὶ πάντες μετανάσται. (*Phaen.* 456–7)

You cannot, by looking at other (stars), determine where they [the planets] are positioned, since they always wander about.

Since the *Phaenomena* is concerned with reading the starry sky as a great system of signs, the varying signals sent by the planets are potentially disruptive. This is brought out by Achilles Tatius, one of the commentators on Aratus, as he discusses the Greek poet's reason for not treating the wandering stars,

παραιτεῖται δὲ διὰ πολλὰς αἰτίας, πρῶτον ὅτι φαινόμενα ἠθέλησε καὶ πᾶσι σύμφωνα δεῖξει ἄστρα, οὔτοι δὲ πολλὴν διαφωνίαν ἔχουσι καὶ οὐδὲ πᾶσιν εἰσι φανεροί. (*Isag.* 42.18–20 Maass)

He excuses himself for many reasons: first, that he intended to talk about the stars apparent to all and harmonious [or: agreed upon] and that these [the planets] carry a lot of disharmony [disagreement] and are not apparent to all.

The planets are associated with an absence of harmony and agreement, as well as a lack of visibility and clarity. It is tempting to think that Achilles is here—just as Manilius often does (see my comment in fn. 39 above)—talking both about the cosmos itself and about cosmology: it is because the planets do not behave in a harmonious fashion that they cause disagreement among scholars; and it is because their position is not easily predictable that they are not 'clear' to both observers and astronomers. There is something uncanny about the planets, which carry with them such an obvious *διαφωνία*. As Richard Hunter observes, '[p]ut very loosely, the planets lack *kósmos*' (Hunter 1995).

Aratus does not want them in his description of the universe. Neither does Manilius.⁹³

We have seen that the portrait of the universe painted in the first book of Manilius' *Astronomica* follows closely the general world view of the poet's time. His description of the two-sphere universe is largely mainstream (apart from such quirks as the introduction of the Southern Bears), and, in the relevant parts, similar in structure (though not in every detail) to that most popular astronomy book of the ancient world, Aratus' *Phaenomena*. Regarding astronomy as merely propaedeutic to astrology, Manilius introduces into his description of the cosmos larger themes that will be of importance later in the work, stressing especially the regular workings of the universe and introducing the notion of a governing divine force. The idea that the world is a *kosmos*, a thing of order and beauty, is central to nearly all ancient cosmology, but Manilius takes it to new heights, interrupting his astronomical treatment again and again with rapturous celebrations of the regularity and rationality of everything that goes on in the heavens. I have suggested that it is this belief in cosmic order that causes the poet to pass quickly over the important topic of the planets, whose seemingly erratic movements would appear to contradict the otherwise clockwork-like functioning of the two-sphere universe. Manilius' *imago mundi* is thus stylized and selective, serving not only to inform the reader of the shape of the universe but also to reflect the poet's larger concerns and beliefs.

⁹³ For a different approach to the planets' threat to the perceived order of the cosmos, see Cic. *Nat. D.* 2.51–3. There, the Stoic Balbus uses the very irregularity of planetary motion as an argument *in favour* of the ultimate regularity of the *mundus* (making, it would seem, a virtue of necessity): the planets only appear to move erratically; in fact, they adhere to a complicated, but ultimately orderly, scheme. Tellingly, though, Balbus does not offer any explanation of how this is supposed to work.

Chapter 3

The Rules of Fate

After the completion of his astronomical portrait of the universe in Book 1, Manilius devotes the rest of his poem to an exposition of astrology proper. While the structure of his treatment is somewhat loose and it is not always apparent why the poet discusses individual topics in the order he does, we can nevertheless discern a bipartite division: roughly speaking, Books 2 and 3 explain various ways of mapping the sky, that is, of conceptualizing the position of heavenly bodies in order to make them astrologically meaningful, while Books 4 and 5 describe the influence of certain celestial features on human beings.¹ Manilius does not explain the rationale behind this structure or behind his somewhat eclectic choice of astrological topics. Since he also does not provide a general introduction to astrology and its tenets (though he touches on such larger topics repeatedly in his proems and throughout the text), it is nearly impossible to understand the *Astronomica* unless one is a *lector doctus* able to match the *poeta doctus* and unless one already has a basic knowledge of astrology or otherwise uses a commentary or edition with notes.² In this chapter, then, my aim is to present in a systematic way the astrological concepts and mechanisms that Manilius explicitly treats, as well as those that are tacitly implied in his exposition. I begin with a general discussion of the belief system of ancient astrology (3.1), move on to a brief history of the discipline (3.2), and then examine in detail Manilius' treatment in, respectively, Books 2 and 3 of the *Astronomica* (3.3) and Books 4 and 5 (3.4). The chapter

¹ This division was first pointed out by Scaliger 1579, who on pp. 65–7 of his commentary distinguishes between the 'isagogical' Books 2 and 3, which are concerned with 'quomodo signa se habent aut per se, aut inter se', and the 'apotelesmatic' Books 4 and 5, which revolve 'circa effectus ipsos' (65). Cf. Romano 1979*a*: 37 and Hübner 1984: 243–5, both of whom, however, also stress the thematic coherence of Books 2–4, which deal with the zodiac, vis-à-vis the discussion of the paranatellonta in Book 5; see also Abry 2006*b*: 311–17.

² The *Loeb* edition (Goold 1992), which has an extensive introduction, is an excellent starting point for the uninitiated.

concludes with an examination of the idiosyncrasies of Manilius' astrological exposition (3.5), a topic that will return us to the puzzle of the planets discussed at the end of the previous chapter.

3.1. WHAT IS ASTROLOGY AND HOW DOES IT WORK?

Over the millennia, astrology has meant many different things to many different people, but even at any individual point in history, such as Rome at the time of Manilius, there existed a multitude of diverse opinions about the supposed relationship between the movements of the heavenly bodies and happenings in the human realm (including, of course, the opinion that no such relationship obtains at all). Conceived of in the most general terms, astrology is a form of divination (it is discussed as such in Cicero's *De diuinatione*) and implies the belief that the observation of events in the heavens can furnish insight into—and, ideally, enable the prediction of—events on earth. Astrology can thus be defined as the 'interpretation and prognostication of events on earth, and of men's characters and dispositions, from the measurement and plotting of the movements and relative positions of the heavenly bodies' (Tester 1987: 11).

Accepting the central tenet of astrology—that the stars can tell us something about ourselves—raises a number of additional questions, which were already hotly debated in antiquity.³ One is the issue of determinism. If it is possible to read in the stars what we are like and what is going to happen to us, it follows that our fate has some kind of objective existence outside ourselves, that it is, indeed, fated. The question then arises to what extent our lives are codified (and, in principle, legible) in the heavens: is every single detail laid down (including, say, the type of our death, for example, that we will drown), or are the stars the repository only of information of a general kind, such as innate tendencies (for example, that we have a fear of water and will thus have a hard time learning how to swim)? R. J. Hankinson (1988: 133–5 and 1998: 287–93) has labelled 'strong' astrology the kind that maintains absolute determinism and thus, at least in theory, total predictability; 'weak' astrology, by contrast, claims merely that the stars hold the key to a person's general predisposition.

³ Cf. Bouché-Leclercq 1899: 570–609, Long 1982, and Lehoux 2006.

Of course, one has to wonder why the observation of the heavenly bodies and their movements would be able to yield information about terrestrial events in the first place. Again, there were two schools of thought already in antiquity. In the terminology of A. A. Long (1982: 170 n. 19), ‘soft’ astrology considers the stars merely signs that point to specific circumstances (for example, the position of the star Regulus in the ascendant at a person’s birth signifies that person’s potential for kingship⁴). In this view, there is no causal connection between signifier and signified (it is not *because* Regulus is in the ascendant that the person is a born king), which does away with the need for an explanation of why such a relationship of cause and effect might exist and how it would work. Still, ‘soft’ astrology raises the question of why the stars would be signs at all. Have they been set up as such by the gods or by divine providence (as claimed by Arat. *Phaen.* 10–13, though not in an astrological context)?⁵ Or have humans simply realized, after extended empirical observation, that certain terrestrial events are always accompanied by certain celestial ones and have thus learned to read the sign system of the stars, without any understanding of an underlying rationale (as maintained by Cicero’s brother Quintus for all types of divination in *Div.* 1⁶)?

The opposite of ‘soft’ astrology is ‘hard’ astrology, the belief that the stars are actual causes of what happens on earth. This position, which may appear far-fetched to us, fits in well with cosmological ideas popular in the ancient world. If the universe is indeed a *kosmos*, a well-ordered whole (cf. the previous chapter), it makes sense for there to be a connection, some kind of interplay, between heaven and earth. Both Plato and Aristotle held that the stars were superior entities, however defined, which implied their potential for exerting influence

⁴ Regulus (‘little king’) is the brightest star in the constellation Leo (*α*Leo). On its royal connotations, see, e.g., Firm. Mat., *Mathesis* 8.23.1–2 and 8.31.4 and cf. Gundel 1925: 1988 and Cumont 1937: 213 and 214 + n. 1.

⁵ That celestial phenomena are signs from the gods is the underlying assumption of Mesopotamian astral divination, in many ways the intellectual ancestor of Classical astrology (see 3.2 below); see Rochberg 2004: 164–208.

⁶ See esp. 1.12: *quarum quidem rerum* [sc. *diuinandi generum*] *euenta magis arbitror quam causas quaeri oportere. est enim uis et natura quaedam, quae... obseruatis longo tempore significationibus... futura praenuntiat* (‘I believe that in these matters [methods of divination] one needs to look for the outcome rather than for the cause. For there is some force and nature that, if one observes the signs for a long time, predicts future events.’). Note the vagueness of *uis et natura quaedam*: there must be some superior force that signals to us via the stars (and other signs), but Quintus is not sure what it is.

over the less powerful and altogether inferior earth that they circled.⁷ Even more strikingly, the Stoics maintained that the universe was a physical continuum: everything was connected to everything else through the principle of *sympatheia* (Gk. *συμπάθεια*, ‘feeling-together, sympathy’) and was furthermore governed by divine providence, which predetermined every single event according to an unalterable fate. In the light of such ideas, which by the time of Manilius were mainstream, the belief that the movements of the stars—powerful, (near-)divine forces that are nevertheless closely connected to us—cause events on earth makes a fair amount of sense.

It was not even necessary to have recourse to elaborate cosmological theories to argue that human life is greatly influenced by the heavenly bodies. A typical argument in favour of astrology drew attention to the undeniable power exerted by the Sun and the Moon: the heat of the Sun enables life on earth, and its annual course along the zodiac brings about the changing seasons, with their significance for the life cycle of plants and human agriculture; similarly, the phases of the Moon cause the tides (and, according to ancient belief, numerous other phenomena, such as menstruation). If the two luminaries have such power, why would the other stars not also influence the earth and its inhabitants?

This very line of reasoning is employed by Manilius (2.87–108), who is an uncompromising proponent of both ‘hard’ and ‘strong’ astrology. In his system, the heavenly bodies do not only signal fate, but themselves bring about the manifold events that befall human beings, as is apparent already from the poet’s announcement of his topic as *conscia fati | sidera diuersos hominum uariantia casus* (‘the stars, knowledgeable of fate, which govern the diverse fortunes of men’, 1.1–2). These ‘stars that rule by silent laws’ (*tacitis dominantia legibus astra*, 1.63) are the means by which god (*deus*)—the ruler of the universe (*mundus*), who is on occasion identified with the universe itself—governs human life:⁸

⁷ In the cosmology of Plato’s *Timaeus*, the stars are divine beings (38b6–40d5), while, in Aristotle’s *De caelo*, they consist of the fifth and most noble element, aether, and by virtue of their absolutely regular and unchanging motions, are exempt from the generation and corruption characteristic of the sublunar region (2.289^a11–293^a14).

⁸ Manilius appears to vacillate between considering the stars themselves to be independent agents and regarding them as the mere tools of such diverse superior powers as the universe, god, nature, and fate (cf. the quotation that follows in the text with those in the next fn.). However, this does not constitute a contradiction, since, in the poet’s pantheistic cosmos, *mundus* (‘universe’), *deus* (‘god’), *natura* (‘nature’), and *fatum* (‘fate’) to some extent function as synonyms, and the starry sky can likewise be referred to as *mundus* and thus be identified with the cosmos as a whole; see further 6.1 and 6.2 below.

hic igitur deus et ratio, quae cuncta gubernat,
 ducit ab aetheriis terrena animalia signis,
 quae, quamquam longo, cogit, summota recessu,
 sentiri tamen, ut uitas ac fata ministrent
 gentibus ac proprios per singula corpora mores. (2.82–6)⁹

Hence this god and reason, which governs all, derives earthly beings from the constellations in the sky and forces their power to be felt, even though they are removed at a far distance, so that they provide lives and fates to the peoples and to everyone his own character.

In the proem to Book 4 (1–118), Manilius makes clear that the fate dispensed by the stars is comprehensive and absolute:

fata regunt orbem, certa stant omnia lege
 longaque per certos signantur tempora casus.
 nascentes morimur, finisque ab origine pendet. (4.14–16)¹⁰

Fate rules the world, everything is determined by a fixed law, and long periods of time are marked with their certain events. At birth, we die [i.e., our death is predetermined], and our end depends on our beginning.

If the stars indeed bring about human character and events on earth, as maintained by Manilius and other champions of ‘hard’ astrology, how is this all-powerful celestial influence supposed to work?¹¹ As pointed out by Manilius himself, the heavenly bodies are far removed from earth (2.84, quoted above), and it is not obvious how they would be able to affect what is happening here, let alone be decisive to a greater degree in, say, the formation of a newborn baby’s character than proximate causes, such as the genetic material passed on by the parents and the child’s surroundings and upbringing.¹² Manilius does not discuss the issue explicitly, but it would appear that, in his cosmos, astral influence is

⁹ See similarly 1.18 (*quaque regat generetque suis animalia signis*, ‘how it [the zodiac] governs and brings forth living beings by means of its signs’) and 3.58 (*fata quoque et uitas hominum suspendit* [sc. *natura*] *ab astris*, ‘(nature) made the fates and lives of human beings dependent on the stars’).

¹⁰ Line 4.16, with its proverbial ring, may well be the most popular verse of Manilius. It appears in two funerary inscriptions (*CIL* 2.4426 and 11.3273), both of which, however, have been strongly suspected of being Renaissance forgeries (see Maranini 1994: 68–9 and esp. 2005 as well as now Gómez Pallarès 2002: 56–8 on *CIL* 2.4426); if at least one of them is old, this would be a precious testimony to popular interest in the *Astronomica* in antiquity. On the fortune of the line from the fifteenth century onward, see Maranini 1994: 68–74; as a quick Google search shows, it has ongoing appeal.

¹¹ On this topic, see Barton 1994a: 102–11 and Lehoux 2006.

¹² Arguments of this kind were often used against astrology, e.g., by Cicero (*Div.* 2.94–9; see Long 1982: 172–8 generally on Cicero’s attack against astrology in *De diuinatione*).

possible—indeed, necessary—owing to *sympatheia*, the general interconnectedness of everything brought about by the divine *spiritus* ('breath, spirit') that permeates the universe:

namque canam tacita naturae mente potentem
 infusumque deum caelo terrisque fretoque
 ingentem aequali moderantem foedere molem,
 totumque alterno consensu uiuere mundum
 et rationis agi motu, cum spiritus unus
 per cunctas habitet partes atque irriget orbem
 omnia peruolitans corpusque animale figuret. (2.60–6)

For I will sing of god, who silently rules nature and is poured into the sky and lands and sea and governs the enormous mass with equal rule, and how the whole world lives by mutual agreement and is driven by the movement of reason, while one spirit lives through all parts and, pervading everything, nourishes the world and shapes its ensouled body.

As is clear from this passage, Manilius views the universe as a living being, an organic structure kept alive by (divine) breath and governed by reason.¹³ Just as in a living body vital organs crucially affect the workings of all body parts, in the universe 'god and reason' (*hic igitur deus et ratio*, 2.82) employ the stars to govern the other 'interrelated limbs' (cf. *cognatis membris*, 2.67¹⁴). It is not by chance that Manilius refers to the zodiac, which plays a particularly important role in his astrological system, as *praecordia mundi* (1.17, 3.61), treating it as the vital organ of the universe.

In some ancient astrological sources, astral 'influence' is understood literally as a material process in which the stars give off matter that travels to earth and affects human beings.¹⁵ Traces of this theory are discernible also in Manilius, who, like other authors, on occasion invokes the power of vision wielded by the signs of the zodiac. Not only are particular signs said by nature to 'see' (*uidere*) particular other

¹³ Generally, on the ancient idea of the universe as an animate being, see Lloyd 1966: 232–72 and Wright 1995: 56–74 and cf. Ch. 6 below; on its application to astrology, see Barton 1994a: 106–7; on its role in Manilius, see Habinek 2007.

¹⁴ Note that Manilius here mixes metaphors: the *cognata membra* are those of the *machina* ('machine', 68) of the world, which are governed by a (divine) *magister* ('master', cf. 68). At the same time, the universe is pictured as both an organism and an artfully designed structure (an image likewise popular in ancient thought; see Lloyd 1966: 272–94 and cf. 2.1 above).

¹⁵ See Dörrie 1965: 124 and Alesse 2003 and cf., e.g., Geminus 2.14 and 17.16, 33, and 34 on the supposed 'effluence' (*ἀπὸρροια* or *ἀποφορά*) of the heavenly bodies (an idea of which Geminus himself is highly sceptical); cf. Sext. *Math.* 5.4–5.

signs, which connotes an especially close relationship (other such special relationships involve ‘hearing’, ‘loving’, and ‘tricking’, 2.466–519; see 3.3 below), but the so-called aspects of the signs are also presented as a matter of sight (2.270–432).¹⁶ The theory of aspect (on which see further 3.3 below) is based on the assumption that signs (and, secondarily, planets that find themselves in these signs) stand in an especially powerful relationship to other signs that are part of the same geometrical figures inscribed in the zodiac. Thus, signs exactly opposite each other are, as it were, connected by a straight line (opposition); signs separated by three other signs are part of an equilateral triangle (trigon); signs separated by two signs form squares; and, finally, signs separated by just one sign make up hexagons (all other kinds of relative position, such as direct juxtaposition, are powerless). The idea appears to be that the signs (which are typically identified with their anthropomorphic and zoomorphic constellations) look at each other along the imagined straight lines that connect them, and that the force of their vision travelling along these lines affects the earth, which is the centre of the circle on which the signs are placed. Manilius therefore maintains (a claim not found elsewhere in our sources) that the trine aspect (signs at the corner of trigons) is more powerful than the quartile (signs at the corner of squares), which in turn is more powerful than the sextile (signs at the corner of hexagons), since, if the signs are farther away from each other (as in the case of those figures with fewer angles), their line of vision comes closer to touching the earth:

sed longe maior uis est per signa trigoni
 quam quibus est titulus sub quarto quoque quadratis.
 altior est horum summoto linea templo,
 illa magis uicina meat caeloque recedit
 et propius terras accedit uisus eorum
 aeraque infectum nostras demittit ad auras. (2.352–7)¹⁷

But the power of the trigon is much greater among the signs than those that are called squares, which involve each fourth [i.e., third, by our non-inclusive reckoning] sign. Their line [i.e., of the quartile signs] runs higher up in a removed part of heaven, while that one [i.e., of the trine signs] comes closer, and

¹⁶ Ancient writers typically employ the vocabulary of vision (including, but not restricted to, *aspicere* ‘look at’) to describe, not only aspect, but all sorts of relationships among constellations, as well as the influence of the stars on human beings (see the examples in Le Bœuffe 1987 s.v. ‘videre’).

¹⁷ See also 2.375–8 on the still less powerful sextile aspect, which involves lines of vision that are far from the earth, and 2.385–6 on the lack of aspect between neighbouring signs, which cannot see each other at all; cf. also Housman 1903–30 *ad* 2.356.

their vision leaves behind the sky and approaches the earth and sends infected air down to our atmosphere.

As is clear from this passage, Manilius regards the vision (*uisus*) of the signs as a force that literally infects the air around us (cf. also 4.742–3). Describing the constellations as looking at one another is thus not so much a playful metaphor as a way of conceiving of the physical reality of astral influence—one that makes particular sense in light of the fact that ancient theories of vision typically suppose a flow of an actual physical substance in and out of the eye.¹⁸ Just as the sudden vision of a desirable person was believed to enter the eye and induce ‘love at first sight’, and just as casting the ‘evil eye’ was considered to cause physical harm, the ‘looks’ of the stars, too, were felt to exert a powerful influence.

Apart from these passing glimpses at the idea of astral effluence and his general insistence on the interrelatedness of all parts of the animate universe, Manilius does not endeavour to provide a detailed explanation of how exactly the heavenly bodies go about their business of ‘governing the diverse fates of men’ (1.2). There are next to no indications in the *Astronomica* of a worked-out physical theory such as that found in the *Tetrabiblos* of Ptolemy, who explains celestial influence by means of the Aristotelian theory of the four elements and their concomitant four qualities hot, cold, wet, and dry, whose mixture and balance are, as Ptolemy maintains, affected directly by the movement of the stars.¹⁹ Manilius is interested not in the physics of celestial causation but in the epistemological question of how we can possibly understand the behaviour of the stars and its implication for human beings. In his opinion, one of the crucial ways in which the heavens affect people is by giving them the desire and the ability to get to know cosmic processes and their meaning (see esp. 2.105–28), a gift motivated by the bond of kinship that links human beings to the universe. Thus, the reason for our capacity for astrology ultimately lies in the divine nature of man, himself a microcosm who shares in the divinity of the macrocosm and is therefore able to understand its laws (see esp. 4.866–935).²⁰

¹⁸ On this idea, see Dörrie 1965: 120–1 and 123–4, Simon 1988: 21–56, Rakoczy 1996, esp. 19–37 (as well as 236 + n. 40 on its application to astrology), and Park 1997.

¹⁹ See Ptol. *Tetr.* 1.2.1–11 (general principles) and 1.4–8 (particularly the powers of the planets); on Ptolemy’s discussion, see Long 1982: 178–83. Faint traces of a similar theory of stellar influence based on the four elements can perhaps be discerned in Manilius’ discussion of the *partes dammandae* in Book 4 (see 3.4 below), particularly in 4.411–14 and 498–502.

²⁰ These ideas will be discussed in greater detail in Ch. 6 below.

In the end, it is not so important why astrology works as long as it can be established that it works at all. Manilius has no doubts on this count, and he ends his discussion of astral influence in the proem of Book 2—from which many of the passages quoted in this section have been taken—with an argument that, one assumes, is supposed to clinch the matter:

sed, ne circuitu longo manifesta probentur,
 ipsa fides operi faciet pondusque fidemque;
 nam neque decipitur ratio nec decipit umquam.
 rite sequenda uia est ac ueris credita causis,
 euentusque datur qualis praedicitur ante.
 quod Fortuna ratum faciet, quis dicere falsum
 audeat et tantae suffragia uincere sortis? (2.129–35)

But not to argue at length for what is obvious, proof itself will lend weight and trust to this endeavour [astrology]. For this method never goes wrong and never leads astray. A path trustworthy for the right reasons, it must be followed in the proper way, and (then) the outcome obtains as is previously foretold. What Fortune affirms, who would dare call that false and contend with the casting of such a mighty lot?

Astrology works. That the stars would govern life on earth makes perfect sense in Manilius' animated, rational, divine cosmos. How exactly they do so is not the concern of our poet, whose ambition instead is to teach us how we can read and understand their workings.

Before briefly looking at the history of astrology—a topic on which Manilius, as we shall see, has his own take—and then turning to a detailed discussion of the poet's astrological system, it is necessary to point out that there were in antiquity numerous different uses for astrology, just as there are today.²¹ First, one can distinguish between *mundane* and *individual* astrology, with the former being the study of how the heavenly bodies affect the whole world (*mundus*), or a particular region or people, and the latter concerning itself with the stars' influence on a single person. Apart from an extended discussion of zodiacal geography (4.585–817), that is, the science of how specific parts of the earth are ruled by specific signs of the zodiac, which impart to them particular characteristics (for example, Italy, including Rome, is governed by Libra, a sign associated with justice, balance, and sovereignty,

²¹ Note that, while the distinctions among different types of astrology discussed in this paragraph were already valid in the ancient world, the terms I use to refer to them are the ones scholars currently employ and do not necessarily date back to antiquity.

4.773–7), Manilius is concerned solely with individual astrology. This field can be divided further into *katarchic* and *genethliological* astrology. Katarchic astrology (from Gk. *καταρχή*, ‘beginning, undertaking’) is the interpretation of the heavens in order to determine whether or not a particular action planned for a particular time will turn out well and whether it should be rescheduled or abandoned.²² One might, for example, consult an astrologer about the success of a journey or business venture or the propitiousness of a wedding scheduled for a particular day. By contrast, genethliological (or *horoscopic*) astrology, the type with which most people are familiar today, concerns itself with determining the position of the stars at the precise moment of a person’s birth, a process known as establishing a *birth chart* or casting a *nativity* (Lat. *genitura*) or *horoscope*.²³ The belief is that this particular configuration of the heavenly bodies determines (or, in ‘soft’ astrology, points to) the fate (or, in ‘weak’ astrology, at least the tendencies) of the person born, who in astrological parlance is sometimes referred to as the *native*. Manilius, as so often, does not discuss his own approach, but the manner in which he presents his astrological methodology implies that his concern is purely genethliological, a position in keeping with his absolute determinism (‘strong’ astrology). After all, katarchic astrology, which seeks to advise people on which course of action to take, is by definition ‘weak’, since it implies the possibility that certain outcomes can be brought about or averted (for example, a wedding might be unlucky on a certain day and lucky on another). This, of course, would be entirely impossible in Manilius’ cosmos, a world ruled by fate in which everything (including, in our example, the wedding day) is predetermined anyway.

3.2. A ‘SELF-STYLED ANCIENT ART’

It goes without saying that for Manilius, who discerns providence and reason in the workings of everything, the very science of astrology, too, must have come about according to a divine plan. In his brief history of

²² On katarchic astrology in antiquity, see Hübner 2003.

²³ The term *horoscopus* (Gk. *ὠροσκόπος* ‘observer of the hour (of birth); time-reckoner’) was originally (including in Manilius) the designation for the (degree of) the sign of the zodiac that is rising at the moment of birth (now called the ascendant; cf. 3.3 below); only after antiquity did it come to connote the birth chart. In this book, I use English ‘horoscope’ in its modern sense, while occasionally referring to the ascendant with Latin *horoscopus*. On Manilius’ use of *horoscopus*, see Hübner 2001: 219–26.

the discipline, which forms part of the proem to Book 1 of the *Astronomica* (1.25–65), he distinguishes three stages of the early development of astrology or, rather, three different ways of conceptualizing the process by which human beings learned to correlate the positions of the heavenly bodies to events on earth. First (1.25–37), Manilius states in general terms that astrology was a ‘gift of the gods’ (cf. *munere caelestum*, 26), without whose benevolence humans would never have been able to understand the workings of the *mundus*. The poet then clarifies (30–7) that one particular god was responsible for revealing the knowledge of the heavens: *tu princeps auctorque sacri, Cyllenie, tanti* (‘you, Cyllenian [i.e., Mercury], are the founder and bestower of such a great and sacred activity’, 30). The Mercury credited with inventing and teaching astrology is generally assumed to be Hermes Trismegistos, the Hellenized Egyptian god Thoth, who was associated with all sorts of occult teachings (as documented in a large corpus of ‘Hermetic’ writings) and whom other authors as well name as the *primus inuentor* of astrology.²⁴ It remains, however, somewhat unclear in Manilius’ text how the crucial role of Mercury relates to the generosity of the gods in general and how exactly the divine knowledge of astrology was passed on to humans (on this issue, see 6.3 below).

The poet becomes somewhat more concrete and ‘historical’ in the second section of his account, which I quote in full:

et natura dedit uires seque ipsa reclusit
 regalis animos primum dignata mouere
 proxima tangentis rerum fastigia caelo,
 qui domuere feras gentes oriente sub ipso,
 quas secat Euphrates, in quas et Nilus inundat,
 qua mundus redit et nigras super euolat urbes. (1.40–5)

And nature, too, imparted these powers and revealed itself, deigning first to communicate with the minds of kings, which reached the heights closest to the heavens. In the very region of the rising sun, they ruled over fierce peoples, traversed by Euphrates or flooded by the Nile, in the place where the firmament returns and moves over the dark cities.

The source of astrological inspiration is now identified as ‘nature’, which reveals its workings first to kings, who on account of their eminent social and political position are particularly close to the heavens and thus

²⁴ See Housman 1903–30 *ad loc.* Generally on the practice of crediting (semi-)divine figures with the invention of astrology, see Bouché-Leclercq 1899: 575–8. The role of Hermetism in the *Astronomica* will be discussed in greater detail in 6.2.

worthy of becoming privy to its secrets.²⁵ These kings are located in the east (43, 45), specifically in Mesopotamia (*quas secat Euphrates*, 44) and Egypt (*in quas et Nilus inundat*, *ibid.*).²⁶ Both casting kings as the first astrologers and placing the cradle of astrology in Mesopotamia and/or Egypt were commonplace in antiquity.²⁷ As for the kings, the poet may have in mind such characters as Zoroaster and Belus (see Housman 1903–30 *ad loc.*), as well as Nechepso, a seventh-century pharaoh, to whom (and to the priest Petosiris; see below) were ascribed astrological writings of high renown (actually Hellenistic in date). Manilius himself may have used them as a source.²⁸ The mention of both Mesopotamia and Egypt shows the poet's awareness (which he shared with his contemporaries) that astrology had been imported to the Graeco-Roman world from the east (an understanding discernible already in Manilius' identification of the originator of the art as the Egyptian Hermes); it also shows his tendency to keep his account general. Manilius' scenario is imbued with high significance—there is the self-revelation of nature, the exalted position of the first recipients of heavenly knowledge, and the evocative locale of the oriental kingdoms—but devoid of historical detail. In particular, Manilius is keeping out of the controversy over whether it was in fact the Babylonians or the Egyptians who invented astrology, a controversy apparent in some of our other ancient sources and one that persists into the modern period, frequently bound up with ideological concerns about the relative merits of individual cultures and the origins of Western civilization (see Barton 1994a: 9–10).

²⁵ In line 1.42, Manilius plays with the meaning of *fastigia*. The *fastigia rerum* ('top of things') reached by the kings are, metaphorically speaking, the highest political power (cf. *OLD* s.v. 'fastigium 7'). However, at the same time, the poet takes *fastigia* literally, imagining that the elevated position of the kings implies an actual proximity to the sky. Is it possible that Manilius is alluding to the ziggurat, the Mesopotamian temple towers that served as astronomical observation platforms?

²⁶ Line 44 is expunged by Bentley 1739, Housman 1903–30, and Goold 1998, on textual grounds and also because these critics believe that a reference to Egypt does not fit the context. Like others (see esp. Liuzzi 1989), however, I do not consider their arguments cogent and thus retain the verse.

²⁷ See Bouché-Leclercq 1899: 51–2 n. 1, who quotes a wealth of ancient discussions of astrology's country of origin, as well as Cumont 1937: 27 + n. 1. The widespread belief in the discipline's Mesopotamian source is apparent furthermore from the use of 'Chaldaean' (Gk. *Χαλδαῖος*, Lat. *Chaldaeus*) to mean 'astrologer' (see Le Bœuffle 1987 s.v. 'astrologus', who points out that, in Latin, this was the most popular designation for astrological practitioners). Strictly speaking, the Chaldaeans were a south-Babylonian tribe, which furnished a caste of priests as well as the neo-Babylonian dynasty (626–539), but in the classical world the name came to denote Babylonians in general.

²⁸ On Nechepso/Petosiris, see Pingree 1974, as well as Barton 1994a: 26–9. The fragments are collected by Riess 1891–3.

After the imparting of astrology to the kings, Manilius appears to envisage a third, separate, stage in the development of the discipline (cf. *tum*, 'then', 1.46), one that crucially involves the activities of priests (1.46–8). That the poet would associate priests with the origins and practice of astrology is not surprising, since, as a type of divination, the interpretation of the stars was imagined as falling under the purview of religious practitioners (and in Mesopotamia and Egypt, it actually did); in particular, Manilius may be thinking of the famous Egyptian priest Petosiris, the above-mentioned nominal author of a number of pseud-epigraphic works. The description of the priests' activities takes up the longest section of Manilius' history of astrology (1.46–65), and the poet finally gives credit not solely to an inspiring force but to human persistence and ingenuity as well. While it is true in the case of the astrologer-priests, too, that the god of the universe voluntarily lays himself open to his servants (48–50), they are also said actively to 'bind' him 'with their dutifulness' (*officio uinxere deum*, 48) and to employ *ars* ('art, science', 51) to understand the exact correlations between human fate and the movements of the heavenly bodies. For generations and generations, the priests observe the stars, noting how each and every position of the heavens relates to human life until they have finally amassed enough data to cover every possible constellation of heavenly bodies—and know what it portends. Manilius clearly envisages these observations as going on for the duration of what was known as a Great Year, the period of time it takes for all planets to return to the same relative position: the priests' task is complete only *postquam omnīs caeli species, redeuntibus astris, | percepta* ('once they had observed every appearance of the sky, with the stars returning (to their starting points)', 58–9). This is no mean feat, given that, as the Greeks and Romans were well aware, a Great Year takes thousands of years.²⁹

The widespread ancient belief that early astrologers had amassed data reaching back over centuries, if not millennia, has some basis in reality: Mesopotamian observational records, which became known to the Greeks in the Hellenistic period, indeed date back to the eighth century BC.³⁰ However, in an effort to present their craft as an art of venerable

²⁹ Censorinus, *DN* 18.11, reports a number of ancient hypotheses about the length of a Great Year, which range from 2,434 years (Aristarchus) to 3,600,000 years (Cassandrus); cf. de Callatay 1996: 68–72 and Parker 2007: 93–4. Generally on the concept of the Great Year, see van der Waerden 1952 and esp. de Callatay 1996.

³⁰ Information from these detailed cuneiform records known as astronomical diaries (on the genre, see Hunger and Pingree 1999: 139–59) was still used by Ptolemy, who

antiquity, astrological authors tended to invoke impossibly inflated numbers and thus achieved such superlatives as Manilius' Great Year or the 470,000 years spanned by Babylonian observation according to Quintus Cicero (*Div.* 1.36, declared unrealistic by his brother Marcus in 2.97).³¹ In addition, Manilius' allusion to the Great Year implies the infallibility of astrology: since the totality of all possible cases has already been observed, there are no surprises in store for the practitioner, and reliable predictions are possible.³² By proceeding in their purely empirical way, then, the early priests succeeded in uncovering the workings of the universe:

per uarios usus artem experientia fecit
 exemplo monstrante uiam, speculataque longe
 deprendit tacitis dominantia legibus astra
 et totum aeterna mundum ratione moueri
 fatorumque uices certis discernere signis. (1.61–5)

Experience created this art through various cases, with examples showing the way, and after long observation realized that the stars rule by silent laws and that the whole universe is moved by eternal reason and distinguishes the vicissitudes of fate by sure signs.

In the three parts of his history of astrology, Manilius thus appears to ascribe the discovery of this art to three different factors: the gift of the gods (1.25–37), the self-revelation of nature (40–5), and human observation and inference (46–65). However, in the context of the poet's world view, this is not a self-contradiction: in Manilius' pantheistic universe, as we have seen before, god and nature are identified and the scientific impulses of human beings are themselves inspired by the divine. In the case of the priests, the poet says explicitly that 'the presence of the powerful divinity itself inflamed their pure intellects' (*quibus ipsa potentis | numinis accendit castam praesentia mentem*, 1.48–9). If the three sections feature different personnel and appear to imply vaguely a procession in time (though it is not clear how exactly

may have had access to them in a compilation made by Hipparchus (see Hunger and Pingree 1999: 156–9, with reference to G. Toomer).

³¹ For other figures, see Bouché-Leclercq 1899: 38–9 and Wardle 2006: 202.

³² Note that Sextus Empiricus (late 2nd c. AD), in the context of an attack on astrology, doubts the existence of observational data to cover a Great Year and thus calls into question the very possibility of making informed predictions (*Math.* 5.103–5); Prol. *Tetr.* 1.2.15–16 and Favorinus *apud* Gell. *NA* 14.1.18 are sceptical as well. Cf. de Callatay 1996: 84–8.

Manilius envisages the chronology³³), they are, in a certain respect, just three different ways of looking at the same thing, namely, the development of a divine and divinely inspired science, which involves the highest capacities of the human intellect. It is thus not surprising when, in his immediately following brief history of civilization (1.66–112), Manilius, after tracing the development of various *artes* by which human beings were able to overcome the original primitivism of their lives, presents the exploration of the heavens and subsequent understanding of the workings of fate as the absolute pinnacle of human culture and achievement (96–112).³⁴

Manilius' history of astrology gives us a fair indication of what many of his contemporaries would have thought about the origins of the discipline: it was a divine art, which came from the east and had been legitimized by thousands of years of observation. Unfortunately, this idealized picture makes it difficult for modern scholars to understand the actual historical development of astrology, since, in keeping with the discipline's status as a 'self-styled ancient art' (Tester 1987: 1), ancient authors typically projected the features of their systems onto a hoary past, claiming the authority of the (near-)mythological founders of their science and showing no particular interest in accurate doxography. As a result, there was an abundance of pseudepigraphic works, books that were ascribed to such sages as Hermes and Nechepso/Petosisiris (as well as, apocryphally, to such real astrologers as Ptolemy) and that are extremely hard to date, especially since these are the kinds of works that later authors felt called upon to emend and expand. In the context of a discourse that was all about truth, authenticity was not an issue.³⁵

Today it is generally agreed that, just like Greek mathematical astronomy (on which it depends and together with which it developed), Western astrology is a product of the Hellenistic period.³⁶ Since,

³³ See Flammini 1990: 45–8 on a possible way to distinguish between the stage dominated by kings and that characterized by priests.

³⁴ Didactic poems and technical prose treatises often contain such surveys of cultural development, which tend to assign to the science or craft treated in the work a crucial role in the formation of human civilization. On Manilius' *Kulturenstehung*, see Effe 1971, di Giovine 1978, Romano 1979*b*, Baldini Moscadi 1980*a*, 1980*b*, and 1991, Flammini 1993, Salemme 2000: 56–61, and Abry 2007*b*: 11–13.

³⁵ Detailed discussion of the astrological writings of classical antiquity is provided by Gundel and Gundel 1966, who discuss the problem of pseudepigraphic works on 9–75.

³⁶ On the history of ancient astrology, see Tester 1987: 1–97, Boll, Bezold, and Gundel 1931: 15–29, Barton 1994*a*: 9–85, and Schmid 2005: 183–202. Whitfield 2001: 9–76 is a beautifully illustrated popular account.

however, no astrological writings from this time survive intact, it is impossible to trace any detailed development. What seems clear, though, is that the Mesopotamians' role was crucial, just as in the field of astronomy (see 2.2 above).³⁷ Beginning in the third millennium, Mesopotamian stargazers systematically observed the sky in order to distinguish omens of relevance to the king and country, an endeavour similar to other forms of divination, such as the practice of interpreting the livers of sacrificial animals. Over the centuries, they recorded a multitude of such omens (whether these were actually observed or simply imagined as possible is not always clear³⁸), which they expressed by means of a stringent formula of protasis + apodosis, 'if *x* occurs/has occurred, then *y* will occur': for example, 'if on the second day of *Nisannu* Venus appears in the east: there will be mourning in the land' (quoted from Rochberg 2004: 75). These omens were gathered in enormous lists, most famously the series *Enūma Anu Enlil*, a collection of 6,500–7,000 celestial omens—mostly concerned with planetary movement, especially that of the Moon—that was compiled in its present form at the end of the second millennium and continued to be used as a standard reference work for centuries afterwards.³⁹

This practice of interpreting astral omens reached its highpoint in (or is, at any rate, best documented for) the Neo-Assyrian era, particularly the reign of the Sargonid kings (721–627 BC). We possess from this period numerous written reports of diviners who are responding to the king's enquiries about the meaning of particular celestial phenomena. The practitioners typically quote the authority of *Enūma Anu Enlil* and then offer their own interpretation of the situation, advising the king, if necessary, about what apotropaic action to take.⁴⁰ Omens were interpreted solely for their significance to king and country, not for the benefit of individuals, a crucial difference from the kind of astrology practised later.

³⁷ On Mesopotamian astrology, see Barton 1994a: 10–19, Koch-Westenholz 1995, Rochberg-Halton 1988 and Rochberg 2004, and Hunger and Pingree 1999: 5–31.

³⁸ Some of the celestial omens recorded are actually astronomically impossible (such as the rising of the Sun at night-time); see Rochberg 2004: 67–8 and esp. 246–65 on the notion of 'observability', as well as the considerations of Lehoux 2002, who also offers a *historia quaestionis*.

³⁹ On *Enūma Anu Enlil*, see Hunger and Pingree 1999: 12–20 and Rochberg 2004: 66–78.

⁴⁰ The astrological practices of the Neo-Assyrian period (about which we are informed in fascinating detail) are discussed by Koch-Westenholz 1995: 54–73 and 137–51; see also Hunger and Pingree 1999: 23–6.

However, things changed in the subsequent Persian and Seleucid periods. At a time when the Mesopotamians made significant advances in the field of astronomy, such as the introduction of the zodiac and the development of highly sophisticated arithmetical methods for calculating planetary orbits, they also began to engage in a new kind of celestial divination, namely, the prediction of an individual's character and life based on the position of the heavenly bodies at that person's birth, including crucially the placement of the planets in the zodiacal signs. In other words, the Mesopotamians invented genethliological astrology, as is apparent from the existence of cuneiform horoscopes from the late fifth century onward.⁴¹ After the conquests of Alexander and the establishment of the Hellenistic kingdoms, Mesopotamian astrology, just like Mesopotamian astronomy, became known to the Greeks and decisively influenced the further development of these sciences in the West.⁴² Unfortunately, very little is known about the process by which Mesopotamian knowledge was transmitted to the Greeks.⁴³ Ancient authors credit in particular the influence of Berossus, a Babylonian who in the early third century reportedly set up a school of astrology on the island of Cos and who in his three-volume *Babyloniaca* ('History of Babylon'), fragments of which survive, may have treated the topic of astral divination in the context of a larger historical narrative.⁴⁴

As for those other presumed inventors of astrology, the Egyptians, it is now believed that their contributions to the discipline as practised later in the classical world were comparatively minor.⁴⁵ Presumably they imported Mesopotamian methods of celestial prediction at about the same time the Greeks did, adapting them to their own, millennia-old ways of mapping the constellations and using the risings and settings of

⁴¹ Babylonian horoscopes (which date from 410 to 69 BC) are collected by Rochberg 1998; see also Rochberg 2004: 98–120 for a general discussion of Mesopotamian genethliology.

⁴² See generally Pingree 1997: 21–9, as well as Rochberg-Halton 1988, who notes particular features of Greek genethliology that can be traced back to Mesopotamian sources, as well as fundamental ideological differences between Greek and Mesopotamian astrology (crucially, as far as we can tell, the Mesopotamians were not determinist and did not believe in a mechanistic universe; their astrology was therefore presumably both 'weak' and 'soft').

⁴³ Cf. Rochberg-Halton 1988: 62: 'The evidence for the means of transmission remains exceedingly limited; indeed, the burden of proof rests on the attested parallels.'

⁴⁴ On Berossus, see Schnabel 1923, Burstein 1978, and Verbrugge and Wickersham 1996: 11–91, all of whom provide an edition of the fragments in addition to general discussion.

⁴⁵ On astrology in Hellenistic Egypt, see Cumont 1937 and Barton 1994a: 23–9; on astrological practice in Egypt under the Roman empire, see Jones 1999 and Evans 2004.

individual stars for time-keeping purposes. Since Egypt, especially Alexandria, was a centre of Hellenistic Greek learning, it is likely that large parts of 'Greek' astrology were in fact developed on Egyptian soil and incorporated not only the all-important Mesopotamian material (whether mediated by the Egyptians or transmitted directly to the Greeks) but also some indigenous Egyptian features. The most prominent Egyptian element in Western astrology (including in Manilius; see 3.4 below) is the so-called decans, 10° divisions of the zodiac (three to each sign) that are in turn governed by individual planets (or, only in Manilius, by signs of the zodiac). Clearly, the decans were originally thirty-six Egyptian constellations arranged along the path of the ecliptic and were only later incorporated into a system that featured the Mesopotamian/Greek zodiac with its twelve signs.⁴⁶

If the ascription of astrology to the Egyptians thus perhaps reflects a historical sense of the geographical path by which the discipline travelled from Mesopotamia to the Mediterranean, it surely also owes a lot to the enormous prestige that Egyptian culture enjoyed in the Greek and Roman imagination. Already Herodotus and Plato had been fascinated by the age and sophistication of Egyptian civilization, and it had become a typical trope to claim Egyptian origin for everything from writing, mathematics, and board games (Pl. *Phdr.* 274c5–d2) to Greek religious practices and the names of divinities (Hdt. 2.43–64). In the light of this 'Egyptomania' (which has continued throughout Western cultural history), it is not surprising that the Egyptians were credited with inventing astrology as well and that we find so many pseudepigraphic works under the names of the likes of Hermes (= Thoth) and the duo Nechepso and Petosiris.

To sum up: in the last three or four centuries BC, the Greeks, taking their lead from the Mesopotamians and (to a lesser extent) the Egyptians, apparently developed astrology as we know it and as it is reflected in Manilius' poem. However, evidence for this process is extremely hard to come by, since astrological writings of the period survive only in fragments or not at all. Actual horoscopes, too, are preserved only from the first century BC onward.⁴⁷ Still, we know from other sources that astrology indeed spread and became more and more popular, including in Rome, where allusions to astrological ideas already occur in the plays

⁴⁶ On the decans and their history, see Gundel 1936a.

⁴⁷ Greek horoscopes are collected in Neugebauer and van Hoesen 1959, Baccani 1992, and Jones 1999. On the role of astrology in Hellenistic society, see Gordon 1997.

of Plautus and Ennius and where the first expulsion of astrologers took place as early as 139 BC. It is apparent from such works as Cicero's *De diuinatione* that the discipline had become established by the first century BC, at which time any educated person could be expected to have an opinion about it.⁴⁸

The codification of Greek astrology in the Hellenistic period can be taken for granted also because later authors, for all their differences in detail, largely present the same basic system. In the following exposition of Manilius' astrology, it is therefore assumed that, wherever the author agrees with other (necessarily later) sources, he is, as it were, following the Hellenistic vulgate. In those cases where he presents a different approach, he may either be reflecting a doctrine that happens to be unattested in the extant astrological literature or be diverging from the accepted way of doing things for reasons of his own. Since parallel passages (or the lack thereof) for individual Manilian tenets can easily be gleaned from the commentaries and since it is not the purpose of this book to discuss how every last detail of the *Astronomica* fits into the history of ancient astrology, I shall in what follows be concerned only with the larger picture and discuss in general terms the (mostly traditional) astrological system presented by Manilius before then applying a sharper focus and zooming in on some of the poet's more idiosyncratic touches. In doing so, I shall largely refrain from speculating about Manilius' sources, a question that cannot be solved owing to the loss of all earlier astrological literature. Suffice it to say that I believe that Manilius used a variety of different sources and that he did not always make an effort to reconcile their partly contradictory teachings.⁴⁹

3.3. THE ASTROLOGER'S CIRCLES (*ASTRONOMICA* 2 AND 3)

Ancient astrology is predicated on the geocentric two-sphere universe described in 2.2 above:⁵⁰ by virtue of its position in the exact centre of

⁴⁸ The spread of astrology in Rome will be discussed further in 4.1.

⁴⁹ For general remarks on Manilius' astrological sources, see Hübner 1984: 136–9 and Abry 2006b: 307–8; Salemme 2000: 9–26 discusses possible philosophical sources (on this topic, see further 6.2 below); speculations on the source of *Astronomica* 1 are found in Blum 1934.

⁵⁰ For the principles of genethliological astrology discussed in this section, see primarily Bouché-Leclercq 1899: 88–310 and 372–457, as well as Boll, Bezold, and Gundel 1931: 44–72, Barton 1994a: 86–142, and Beck 2007: 20–118.

the universe, the static earth is the obvious object of the influence (however conceived) of the heavenly bodies that circle around it.⁵¹ These include, as we have seen, the fixed stars on the outer firmament, which complete their east–west rotation in twenty-four hours, as well as the seven planets, which participate in the diurnal rotation but also change position vis-à-vis the constellations, slowly moving from west to east on the plane of the zodiac. When casting a nativity, the astrologer produces a snapshot of the heavens as viewed from the place, and at the exact time, of the native's birth, noting the position of the stars, especially the signs of the zodiac and the planets; it is this very arrangement of the heavenly bodies that is believed (at least in 'strong' and 'hard' astrology) to determine every aspect of the native's future life.

Already in Mesopotamian horoscopy, the position of the planets—which, after all, exhibit a wider variety of relative movement than the unchangingly 'fixed' stars—was at the centre of astrological attention, and classical astrology, too, largely concentrates on the seven wanderers and their journey along the zodiac. While a number of astrological texts (including Manilius' fifth book) also discuss the significance of the so-called paranatellonta, constellations outside the zodiac that rise simultaneously with individual signs, it is the very pathway of the planets that plays the principal role in the Western astrological tradition. As is apparent from Manilius' discussion, this great circle can be conceptualized, divided up, and made meaningful in three different ways.

First, the astrologer can look at the zodiac itself, a circle divided into twelve signs of 30° each, with each sign named for its (more or less) underlying constellation.⁵² As part of the sphere of fixed stars, the zodiac rotates around the earth in the course of twenty-four hours, with six signs rising during the day and six during the night. At any given moment, each planet will be 'in' one particular sign of the zodiac.

⁵¹ Despite the Copernican Revolution, modern astrology in effect retains the geocentric model, without which most features of astrology would not make sense. Interestingly, there does not seem to be any evidence that the Mesopotamians, the inventors of genethliology, imagined a spherical universe—or, indeed, developed any geometrical model of the cosmos; see, e.g., Koch-Westenholz 1995: 20–1 and Rochberg 2004: 126–7.

⁵² While zodiacal signs in the astronomical/astrological sense are (and were at Manilius' time) simply 30° sections of the zodiac and not identical with the constellations (which are of unequal length and whose position on the mathematical zodiac shifts over time owing to the precession of the equinoxes), these anthropomorphic and zoomorphic figures and their supposed characteristics are nevertheless of crucial importance to the enterprise of astrological forecasting, as we shall see again and again in what follows.

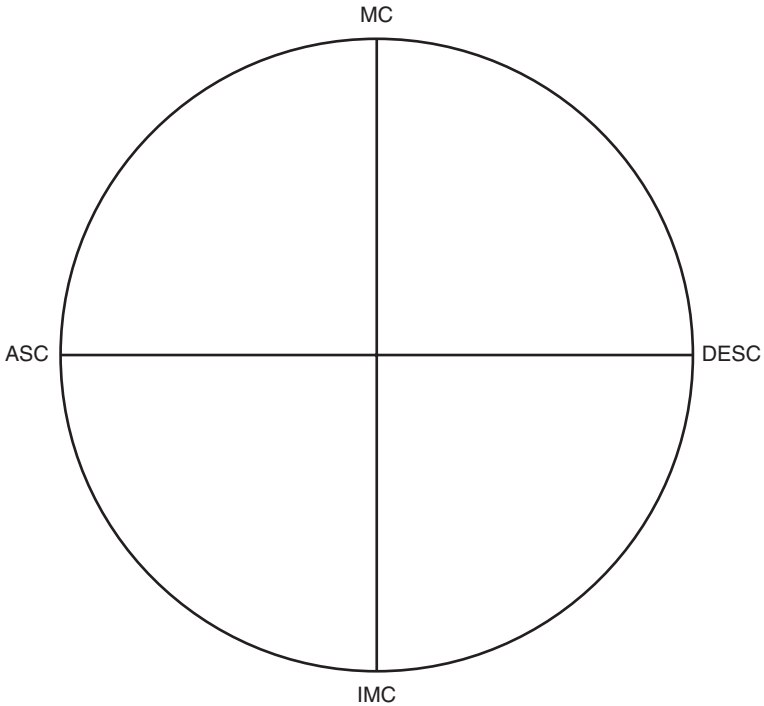


Figure 5. The four *cardines*

The second way of conceiving of the circular path of the planets is to think of it as an immovable ‘ring road’ around the earth, specifically around each individual observer. For any person on earth, half the zodiac is always above the horizon and half is invisible, and while the signs of the zodiac and the planets in them keep moving, they all follow the same circular path, rising on the eastern horizon and setting in the west. This abstract, purely conceptual, route is our second astrological circle, defined primarily by its four so-called centres (Gk. *κέντρα* ‘sharp points’) or cardinal points (Lat. *cardines* ‘hinges’).⁵³ These are the *horoscopus* (Gk. *ὠροσκόπος* ‘observer of the hour (of birth); time-reckoner’) or, to use the modern term, ascendant (abbreviated ASC or HOR), the rising place of the zodiac in the east; the *medium caelum* (‘midheaven’, MC),

⁵³ Goold 1992: p. lv terms this the ‘fixed circle of the observer’, while Hübner 1995: 6 describes it as a ‘sphärisches Koordinatensystem’.



Figure 6. Papyrus horoscope (*P Oxy.* 235; early 1st c. BC). Reproduced with kind permission of the American Philosophical Society from Neugebauer and van Hoesen 1959: 18–19 (no. 15/22).

where the signs reach their highest elevation; the *occidens* ('setting') or descendant (DESC or OCC), where the zodiac sets in the west; and the *imum caelum* ('lower midheaven', IMC), the place opposite the *medium caelum*, where the signs reach their lowest position underneath the earth. The fixed circle can be plotted on a diagram like the one in Figure 5 (with the *horoscopus* at nine o'clock = east, the *medium caelum* at twelve o'clock = south, and so on), and the position of the signs of the zodiac and the planets at the moment of birth can be indicated on it, as seen in a Greek horoscope on an Oxyrhynchus papyrus that shows Taurus and the Moon in the ascendant and marks the other signs and planets as well (see Figure 6). In addition to pinning down the fixed circle by means of the four cardinal points, astrologers divide it into twelve sections, the so-called places (Gk. τόποι, Lat. *loci*, also *templa*).⁵⁴ These are numbered 1 through 12 and arranged counter-clockwise starting from the ascendant

⁵⁴ In modern astrology, the places are known as '(mundane) houses'. In antiquity, however, the term 'houses' (Gk. οἴκοι, Lat. *domus*) referred solely to planetary houses (each planet is 'at home' in one or more signs of the zodiac). (Manilius does not discuss this otherwise mainstream doctrine; see 2.433–52 and below on his alternative system of divine guardians for the signs.)

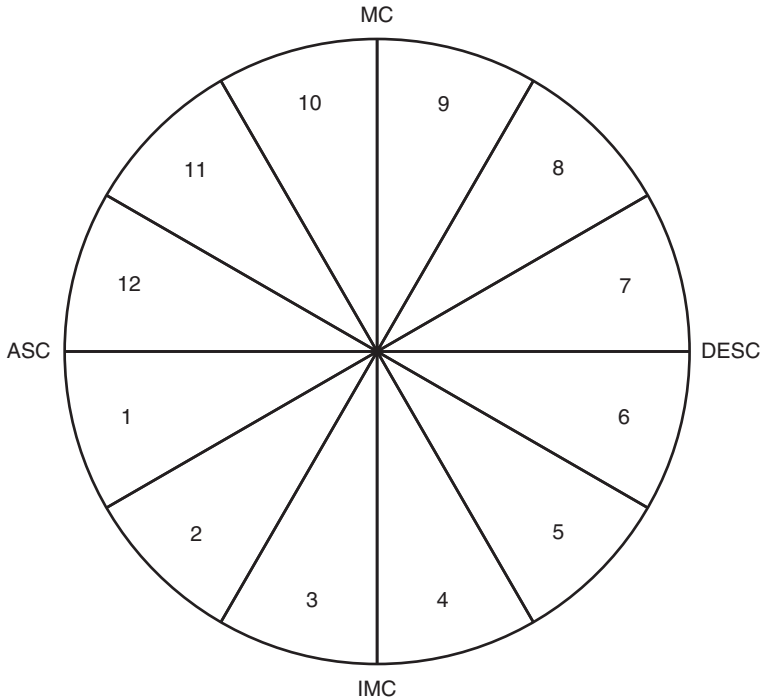


Figure 7. The twelve places

(see Figure 7). In this twelve-place system, known as *dodecatropos* (Gk. δωδεκάτροπος ‘(system of) twelve turns’), each place is believed to be predictive of a particular aspect of the native’s life—fortune, health, marriage, and so on—which is determined by the sign and/or planet(s) that happen to find themselves in it at the moment of nativity. Zodiac and planets thus continuously rotate through the *dodecatropos*, the fixed circle centred on the observer; a horoscope maps their position at one particular point in time.⁵⁵

⁵⁵ Note that, as depicted in Figures 5–7, the fixed circle is very much an abstraction, since—except twice a day, when the two equinoctial points find themselves in the ascendant and descendant—the four cardinal points are not in fact exactly 90° apart (see Goold 1992: pp. lx–lxi, Barton 1994a: 95–6, and Beck 2007: 28–33); as a result, the places, too, are really of unequal size, a fact not always taken into account by actual horoscopes.

While zodiac and *dodecatropos* are absolutely central to the practice of astrology, the third circle described by Manilius, that of lots (Gk. κλήροι or ἄθλα, Lat. *sortes*), is found in this form only in the *Astronomica*.⁵⁶ It is another way of dividing up the circular route of the zodiac into twelve parts of equal size, but this division is neither intrinsic to the zodiac (like the signs) nor dependent on the fixed frame of cardinal points (like the places). Rather, it changes at every moment according to the movement of the two luminaries: the position of the first lot, the so-called Lot of Fortune, must be calculated according to a specific formula that involves the distance between the Sun and the Moon and is different depending on whether it is a diurnal or nocturnal nativity. The other lots then follow in counter-clockwise direction, each of them carrying a particular significance for the native.

A. E. Housman sums up the differences among Manilius' three astrological circles as follows:

Of these three circles the first [the zodiac], like the milky way, is a portion of the revolving sky; the second [the *dodecatropos*], like the horizon and the meridian, is incorporeal and does not spin with the heavens. The third [the circle of lots], also incorporeal, is neither rotatory like the first nor stationary like the second: the astrologer carries it in his pocket, whence at the moment of a nativity he whips it out and claps it on the zodiac. (1903–30: 3.v).

Of course, in a way, these circles are all the same circle or, rather, they are but three different ways of dividing up and making sense of the zodiac, the oblique path of the Sun and the other planets around the earth. The result of having these three systems is the creation of a multitude of astrologically meaningful phenomena. At any given moment, a zodiacal sign will be in a place as well as in a lot; four of the signs will also be at cardinal points. Each planet will be in a sign, a place, and a lot; it may find itself at a cardinal point as well. Things become even more complicated once we take into account not just whole signs, but their individual degrees. In addition, it is not only the planets' placement at the various points of the three circles that is ever-changing, but also their

⁵⁶ The Lot of Fortune makes its appearance in many texts and actual horoscopes, and we also occasionally find a more developed system of seven lots (corresponding to the seven planets); the twelve-lot system, however, is peculiar to Manilius. While the lots are typically just points on the zodiac, in the *Astronomica* they are actual 30° divisions, just like the twelve places, on which Manilius may have modelled them. On the lots in general, see Bouché-Leclercq 1899: 288–310; for Manilius' system, see Housman 1903–30: 3, pp. v–vii, Goold 1992: pp. lxii–lxv, and Feraboli, Flores, and Scarcia 1996–2001 ad 3.43–74.

relative position vis-à-vis one another, a factor deemed highly significant. The near-infinite complexity produced mirrors the variety and multiformity of human life and, not incidentally, enables the practising astrologer to exert his or her own judgement to form the mass of information available from a horoscope into a meaningful narrative of the native's fate.

In his presentation of the principles of genethliology, Manilius treats the three circles in turn with varying degrees of detail, but with hardly an attempt to relate them to one another or to explain his procedure. After the long and splendid proem to Book 2 (parts of which have already been discussed above in 3.1; others will concern us later on in 5.3 and 6.1), the poet first launches into an extended discussion of the zodiac proper, by far his favourite topic (2.150–749).⁵⁷ He does not, however, announce it as such, instead going *in medias res* and declaring abruptly, *primum astrorum uaria est natura notanda | carminibus per utrumque genus* ('first the different nature of the signs according to both sexes must be pointed out in song', 2.150–1). The poet proceeds to expound the characteristics of the individual signs (2.150–269): not only are half the signs masculine and the others feminine, but some are of human, others of animal shape; some are single and others double; three of them (Taurus, Gemini, and Cancer) are backward because they rise 'the wrong way around'; and six are nocturnal, six diurnal. They can be further classified according to their aquatic, terrestrial, or amphibious nature; the degree of their fertility; their position (running, standing, sitting, or lying); whether they are whole or disfigured (some of the constellations do not represent complete shapes); and how they are distributed over the four seasons. Most of Manilius' classifications are conventional and obviously based on the identification of each sign with its constellation (thus, for example, Aries, the Ram, is masculine, animal, and terrestrial; Virgo, the Virgin, is infertile; and so on—though there are some surprises, like the appearance of the Bull, Taurus, among the feminine signs⁵⁸); as a matter of fact, in Manilius' poetic treatment, the signs come close to being fully personified.

This becomes even clearer in the following discussion of the relationships the signs have with one another (2.270–692; cf. Beck 2007:

⁵⁷ On Manilius' treatment of the zodiac, see esp. Hübner 1982: 453–634.

⁵⁸ The traditional classification of Taurus as feminine is necessitated by the system, according to which signs of the opposite gender alternate along the zodiac. There have nevertheless been the 'oddest speculations' (Goold 1992: p. xxxviii) about the sign's femininity; see the commentaries and Hübner 1982: 480–2.

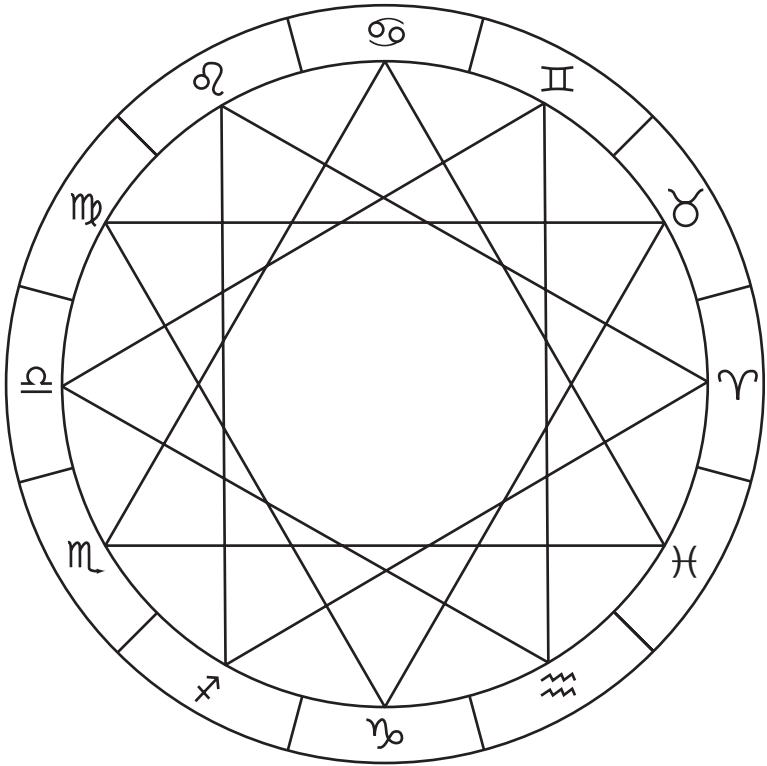


Figure 8. Aspect: trigons

62–5), which include friendships, enmities, love, and treachery and which, if we believe Manilius, give rise to high drama in the heavens. First, the poet tackles the important astrological doctrine of aspect (already discussed in 3.1 above): signs that find themselves at the corners of certain imagined geometrical figures inscribed in the zodiac enjoy a special relationship (see Figures 8–11). Thus, there are four trigons and three squares, as well as two hexagons and six pairs of signs in opposition. Signs in opposition are mostly, though not exclusively, hostile to each other, while belonging to a trigon, square, or hexagon is the equivalent of belonging to a club whose members get along, at least in principle⁵⁹ (as mentioned above, the relationship of the trine aspect is,

⁵⁹ Here Manilius diverges from the astrological *communis opinio*, according to which trine and sextile signs are harmonious, but quartile signs are hostile; see Feraboli, Flores,

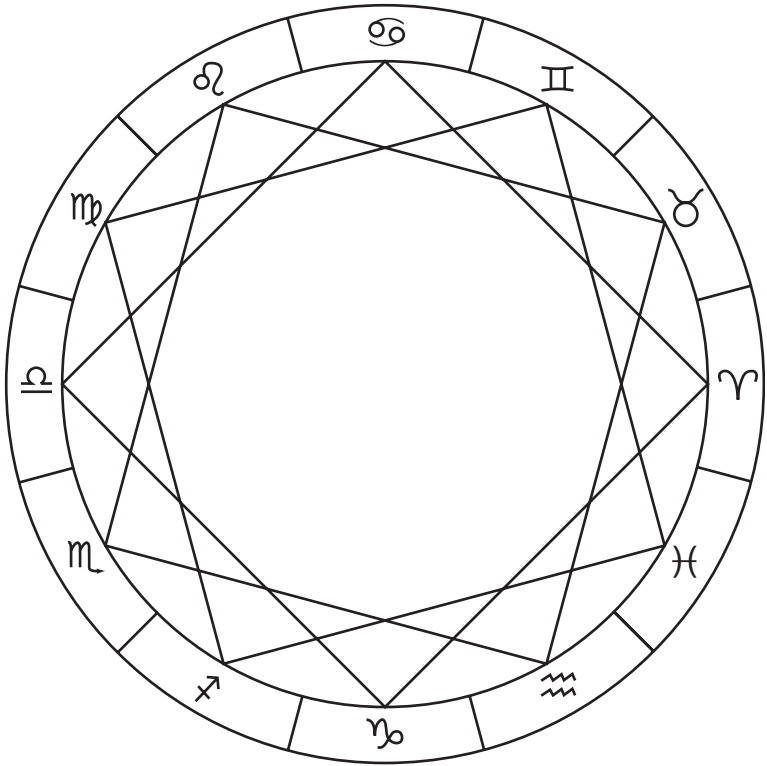


Figure 9. Aspect: squares

according to Manilius, more powerful than that of the quartile, while that of the sextile is generally weak). In addition to the zodiacal friendships and enmities caused by aspect, individual signs relate to other individual signs in a variety of ways that are, again, described in anthropomorphic terms. There are five pairs of signs that ‘see’ (*uidentia*; cf. 3.1 above) and five different ones that ‘hear’ (*audientia*) each other, friendly relationships both.⁶⁰ In addition, the six masculine signs ‘love’

and Scarcia 1996–2001 *ad* 2.352–7, with ample references to ancient sources, and generally Bouché-Leclercq 1899: 169–72.

⁶⁰ While Manilius does not describe the rationale behind this, it is clear that the seeing signs are connected to each other by lines parallel to the diameter Aries–Libra (which itself is a seeing relationship), while the lines between the hearing signs parallel the hearing relationship of Cancer–Capricorn; see Housman 1903–30: 2, pp. xviii–xix and Feraboli, Flores, and Scarcia 1996–2001 *ad* 2.466–519.

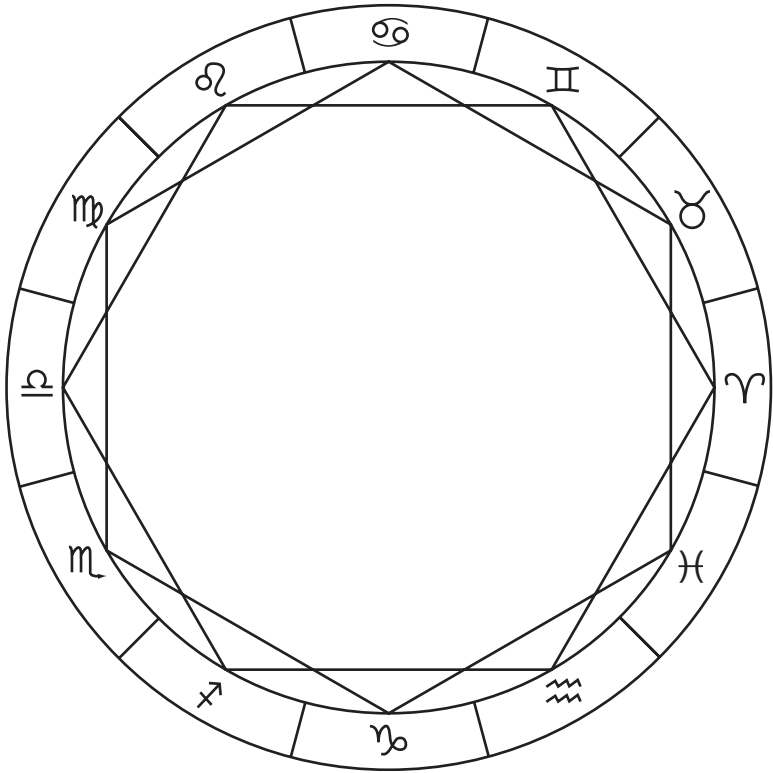


Figure 10. Aspect: hexagons

particular feminine signs (*amantia*), some of which, however, respond with ‘treachery’ (*insidiantia*).⁶¹ Finally, there are a number of further reasons why signs are hostile to each other, including membership in opposite trigons and the inherent enmity of human and animal signs. Even within the same trigon, the poet sadly reports, friendship does not always prevail, with single signs frequently bullying others.

It is thus apparent that the zodiac is anything but a happy family and that true friendship is a rarity among the signs. This pessimistic assessment enables Manilius to explain (2.579–607) why in the human

⁶¹ The last two categories, with their extreme psychologization of the signs, are found only in Manilius. For the method behind them, see Housman 1903–30: 2, pp. xix–xx and Feraboli, Flores, and Scarcia 1996–2001 *ad* 2.466–519.

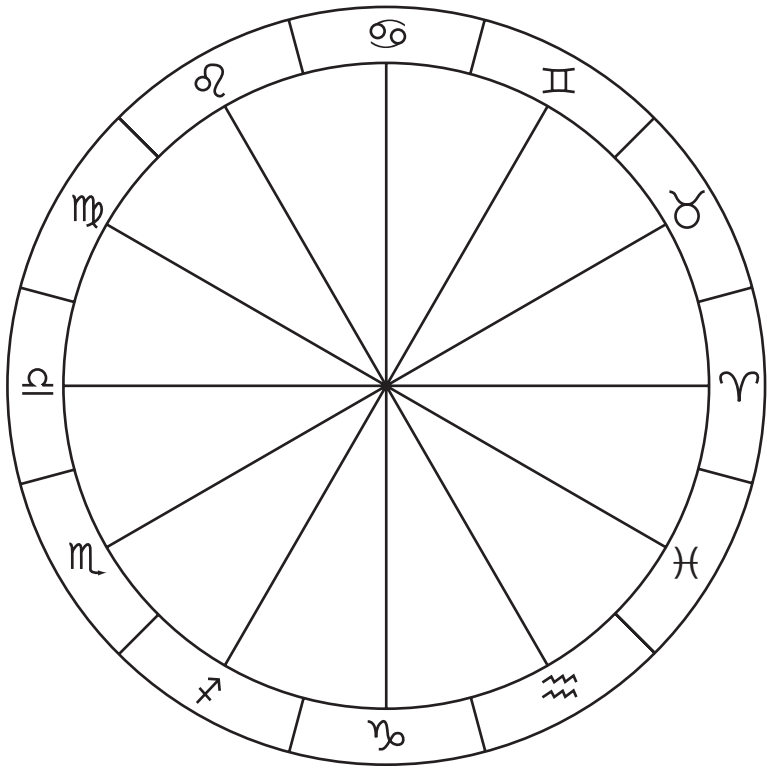


Figure 11. Aspect: opposition

realm, too, hostility and aggression prevail: obviously, the heavens determine what happens on earth, and if friendship is a rarity there, the same will be true here. After an invective against human crime and treachery, which in typically Roman manner alludes to that ultimate sacrilege, the Civil Wars,⁶² the poet concludes:

⁶² See Housman 1903–30 *ad* 2.594, Baldini Moscardi 1981a: 43–4, and Feraboli, Flores, and Scarcia 1996–2001 *ad* 2.592–607 for a discussion of allusions to Roman politics in the passage. The mention of the disappearance of the Sungod in 2.595 in particular has been seen as a reference to the assassination of Julius Caesar; compare the two additional lines supplied by Goold 1992 and 1998 in the putative lacuna immediately preceding (posited by Jacob).

scilicet, in multis quoniam discordia signis
 corpora nascuntur, pax est sublata per orbem,
 et fidei rarum foedus paucisque tributum,
 utque sibi caelum sic tellus dissidet ipsa
 atque hominum gentes inimica sorte feruntur. (2.603–7)

Surely, since under many signs bodies of a discordant disposition are born, peace is removed from the world, and the bond of faith is rare and granted to few, and the earth, just as the sky, is at variance with itself, and the races of men are carried along by hostile fate.

The poet's discussion of zodiacal relationships is interrupted in the middle by two brief digressions, with one following right on the other: the first (2.433–52) treats the divine guardians of the signs, each of which is placed under the tutelage of one particular god,⁶³ and the second (2.453–65) describes what is known as *melothesia* (Gk. *μελοθεσία* 'assignment of body parts'), the practice of allotting each sign of the zodiac to a body part that it governs.⁶⁴ Both topics seem out of place in Manilius' treatment of the friendships and enmities of the zodiac (as seen already by Scaliger 1579, commentary p. 97), and since 2.466 would follow logically on 2.432, it is quite possible that the whole section 2.433–65 originally stood somewhere else and in the course of the *Astronomica's* transmission became displaced to its current location (see Housman 1903–30 *ad* 2.433–452).

The last topic pertaining to the zodiac proper that Manilius discusses is the so-called *dodecatemoria* (Gk. *δωδεκατημόρια* 'twelfth parts') (2.693–749). According to this doctrine, each sign is divided into twelve sections of 2.5°, each of which in turn is governed by one of the zodiacal signs, beginning with the sign of the host: thus, for example, the first *dodecatemorium* of Aries belongs to Aries, the second to Taurus, and so on. To make matters more complicated still, each *dodecatemorium* can be subdivided into five parts of 0.5°, each under the tutelage of one of the five 'proper' planets, that is, those aside from the Sun and the Moon. The point of this system is to allow for greater

⁶³ This system (on which see Boll 1903: 472–8, Gundel 1926*b*: 181–91, and Abry 2002*a*) is different from the typical designation of the signs as planetary houses in that Manilius' guardians are actual gods, not planets. That the poet does not mention the commonplace idea of the houses (though see Abry 2000: 98–100 for possible traces of it in the zodiacal geography of Book 4) is in agreement with his general downplaying of the planets, on which see further 3.5 below.

⁶⁴ This passage and a related one in 4.701–10 (see 3.4 below) are the only hints in the *Astronomica* of astrological medicine, an approach of great importance in the history of Western medicine well into the modern period.

complexity in casting a horoscope and thus to account for the variety of human fates and dispositions: even people born under the same sign can be quite different from one another, owing to the fact that they are born under different *dodecatemoria*. As Manilius puts it, *quamquam signis nascantur eisdem, | diuersos referunt mores inimicaque uota* ('even though they are born under the same signs, they show different characters and opposite plans', 2.707–8). According to the poet, the *dodecatemoria* were instituted by *mundi conditor ille* ('that creator of the world', 2.701) for this very purpose.

After stressing the importance of the *dodecatemoria* in the preparation of a chart, Manilius backs off from this complicated topic, promising more detailed treatment for the future (2.750, a promise that he does not keep). However, he takes this opportunity to explain his didactic method in a famous passage (2.751–87) to which we shall return. The poet then, without any proper introduction, launches into his discussion of the fixed circle, beginning straightaway with a description of the four cardinal points (2.788–840). Each of them governs a particular aspect of the native's life: the *medium caelum* has to do with fame and success; the *imum caelum* determines a person's wealth; for obvious reasons, the ascendant shapes one's birth and life in general; and the descendant is in charge of not only death, but marriage and social life as well. The four *cardines* furthermore divide the circle into four quadrants, each of which influences a period of human life (2.841–55): childhood (ASC–MC), youth (MC–DESC), maturity (DESC–IMC), and old age (IMC–ASC).

Manilius then turns to the full-fledged *dodecatropos*, describing the twelve places, their Latin names, the planet that 'resides' (that is, is particularly powerful when placed) in each, and the area of human life (such as parentage, health, marriage, offspring, and kind of death) with which each is associated (2.856–958).⁶⁵ The poet sums up:

tali sub sorte notandae
templorum tibi sunt uires: quae peruolat omnis
astrorum series ducitque et commodat illis
ipsa suas leges, stellaeque ex ordine certo,
ut natura sinit, lustrant, uariasque locorum
efficiunt uires, utcumque aliena capessunt
regna et in externis subsidunt hospita castris. (2.958–64)

⁶⁵ On Manilius' *dodecatropos*, see Hübner 1995 and the shorter discussion in Hübner 1996.

In such a way you must mark the power of the places, through which the whole series of signs rotates, taking over their laws from them and adjusting their own to them, and through which also the planets travel, in their fixed order, as nature allows, and activate the various powers of the places, whenever they take up foreign realms and reside as guests in camps not their own.

Just as in the case of the *dodecatemoria*, the poet in 2.965–7 promises to come back to the last-mentioned topic (planetary position within the *dodecatropos*), but, in the extant *Astronomica*, he never does.

The discussion of the *dodecatropos* brings Book 2 to an end, and in Book 3, after the proem (1–42), Manilius turns to his third astrological circle, that of the twelve lots. Unlike in the cases of the zodiac and the fixed circle, where the poet, as we have seen, unceremoniously begins his discussion of the technical details without any general introduction to the topic, Manilius here gives an elaborate and stylistically exalted explanation of the significance of the lots (3.43–95), one strangely disproportionate to the relative obscurity of the doctrine. As mentioned above, Manilius is our only surviving source to operate with a fully developed system of twelve lots, and, whether he found it in an earlier writer or made it up himself,⁶⁶ he would have been aware of the fact that it was far less mainstream than the material treated in Book 2—and may thus have decided to give it some extra advertising by means of a purple passage. In it, the poet revisits the issue of the stars' role as the dispensers of human fate, maintaining that 'nature', after creating an orderly and interconnected universe (3.47–57), entrusted the operation of fate to the heavenly bodies, in particular to the zodiac (58–70). To this purpose, nature divided the zodiac into twelve *sortes* (70–82), sections of equal size that are superimposed on the zodiacal signs in such a way that one lot always occupies one sign, but the circle of lots itself keeps turning atop the zodiac. Once the first lot, that of Fortune, has been determined, the others follow in order.

After Manilius has thus, as it were, elevated the lots to the central feature of astrology, he lists the significance of each in order (3.96–159): just like the places, they determine particular aspect of the native's life, such as household and wealth (lot 1 = Lot of Fortune), warfare and

⁶⁶ Manilius is in my view quite capable of adjusting to his own purposes astrological tenets and methods he found in his sources. In the case of the lots, as in other instances, he may have wished to downplay the role of the planets (in the more common seven-lot system, each lot is associated with one particular planet) and highlight that of the zodiac instead (with twelve lots viewed not as points on, but divisions of, the zodiac, each corresponding to one of the signs). On this strategy, see further 3.5 below.

travel (lot 2), marriage and friendship (lot 5), health (lot 11), and so on. After this, the poet proceeds to explain how to find the Lot of Fortune in the first place (3.160–202): for a daytime nativity, count⁶⁷ the degrees from the Sun to the Moon and then count that same number of degrees starting from the ascendant; where you end up is the Lot of Fortune. For a night-time nativity, count the degrees from the Moon to the Sun and then continue in the same manner.

Having expounded this simple formula and thus completed his treatment of the circle of lots, Manilius addresses his student:

forsitan et quaeras, agili rem corde notandam,
qua ratione queas, natalis tempore, nati
exprimere immerso surgentem horoscopo orbe. (3.203–5)

Perchance you may ask about a matter to be marked with swift intellect: how you can determine, at the time of birth, the *horoscopus* rising from the submerged part of heaven.

This seemingly casual question introduces the central section of Book 3, one of the most technical and mathematical parts of the *Astronomica*, which is dedicated to the difficult matter of determining the ascending degree of the zodiac. Obviously, casting a nativity hinges on being able to tell which sign—in fact, ideally, which degree of which sign—is ‘horoscoping’, that is, coming up over the eastern horizon, at the exact moment of the native’s birth. The construction of the fixed circle crucially depends on this knowledge (we need to know the ascendant to determine the other three *cardines*, as well as the twelve places), as does the determination of the Lot of Fortune and thus the whole circle of lots. Manilius is therefore right to state that, without knowledge of the *horoscopus*, ‘the foundations of the art (of astrology) collapse, and its order is amiss’ (*fundamenta ruunt artis nec consonat ordo*, 3.207).

Manilius’ discussion of the different formulae for calculating the ascendant appears to introduce a new tone into the *Astronomica*: after the theoretical description of the three astrological circles, we now get a more ‘do-it-yourself’, practical approach, as the poet tells the student how he must go about finding the horoscoping degree.⁶⁸ However, the

⁶⁷ Note that all counting is counter-clockwise, i.e., follows the order of the signs.

⁶⁸ This ‘practical’ turn is anticipated by the discussion of how to find the Lot of Fortune, a procedure that requires activity on the part of the astrologer himself (cf. Housman’s description of the circle of lots as a kind of tool that ‘the astrologer carries . . . in his pocket, whence at the moment of a nativity he whips it out and claps it on the zodiac’, 1903–30: 3, p. v). On the distinction between ‘theoretical’ and ‘instructional’ didactic poetry, including in Manilius, see Volk 2002: 41 and 199–200 + n. 9.

impression that Manilius is now informing us how actually to cast a nativity is misleading. Not only would an astrological practitioner at Manilius' time not rely on his own observations and calculations—he would instead consult astronomical tables to find out the rising times of the signs⁶⁹—but the poet's methods for determining the *horoscopus* presuppose prior knowledge of other phenomena (most notably the position of the Sun at the moment of birth) without telling us how to acquire it. Similarly, even assuming that we might be able to calculate the ascendant following the poet's instructions, this would not enable us to construct the circle of lots (for which we would need to know where the Sun and Moon are located) or make up a meaningful birth chart: for this, we would need to know where all the planets are positioned. Such knowledge can be found in tables and almanacs (not that Manilius mentions such aids), but, since the information necessary for finding the ascendant can as well, it is not immediately obvious why the poet discusses the topic at such length.

The practical and didactic qualities (or the lack thereof) of the *Astronomica* will be our topic in 5.1 below. As for the calculation of the *horoscopus*, we might speculate that Manilius has crafted this section not so much to impart actual useful knowledge as to show off his astronomical sophistication and ability to convey complicated scientific matters in the medium of the hexameter. In addition, though, the discussion has an important ideological function and serves to demonstrate the validity and viability of astrology. One of the most popular ancient arguments against astrology was the observation that twins—who are born, after all, at the same time and thus ought to share a birth chart—often have quite different fates.⁷⁰ Against this, it could be pointed out that, in the minute period of time that elapses between the birth of the first and the second child, the zodiac has moved on: the *horoscopus*, and thus the horoscope, is different.⁷¹ A second objection

⁶⁹ See Baccani 1992: 77–9 for a brief account of the determination of the ascendant in ancient astrological practice.

⁷⁰ See, e.g., Cic. *Div.* 2.90–1, Favorinus *apud* Gell. *NA* 14.1.26, and August. *De civ. D.* 5.2–6.

⁷¹ The astrologer and polymath Nigidius Figulus (1st c. BC) demonstrated this by touching, two times in quick succession, a spinning potter's wheel (meant to represent the zodiac) with his finger dipped in ink: once the wheel had been stopped, the marks were found to be sufficiently apart (August. *De Civ. D.* 5.3); according to Augustine (see also a scholion to Lucan 1.639), it was this very experiment that earned Nigidius his *cognomen* Figulus ('potter') (on the name, see Della Casa 1962: 9–17). For the potter's wheel as an illustration of heavenly rotation, see also 2.4, fn. 72 above.

was that the risings and positions of the stars differ from location to location and that people born at the exact same time but in different places therefore ought to have different nativities (see Cic. *Div.* 2.92–3). The answer to this, of course, was that any serious astrologer would in fact take location into account. Now, the critic, even if satisfied with both answers to both arguments, might still play the trump card and maintain that all this was well and good, but that it would simply be impossible properly to calculate the position of the zodiac for an exact time and location.⁷² Manilius in this section implicitly answers this challenge, showing that it is in fact possible to *tantae molis minimum deprendere punctum* ('pin down a most minute point in such a great structure', 3.215), to determine the *horoscopus* at any place and time, and thus to enable the establishment of any nativity.

Manilius' discussion of the ascendant is one of the most complicated passages of the *Astronomica* and can be summed up only briefly here.⁷³ After stressing the importance and significance of his task (3.203–17), the poet warns the reader against the *uulgata ratio* ('common method', cf. 3.218) of assuming that each sign simply takes two hours to rise, which would imply that, once the local time of birth has been established, one can simply count back from the sign that carries the Sun in order to find the *horoscopus* (3.218–46).⁷⁴ As the poet points out, there are a number of problems with this: owing to the obliquity of the zodiac, the signs do not actually rise at equal speed; the length of day and hence the rising times of the signs vary from latitude to latitude; and the length of day furthermore changes with the changes of the seasons. In the main part of his discussion (3.247–482), Manilius tackles these issues, providing both a formula for calculating the rising times of the signs at all latitudes (3.385–442) and a general method for determining the increase in daylight hours from the winter to the summer solstice at any location (3.443–82).

Manilius' extended treatment of the ascendant appears to indicate that he has a 'clear grasp of the problem' (Brind'Amour 1983*b*: 144) and

⁷² The supposed impossibility of calculating the ascendant is the central argument of Sextus Empiricus' sceptical attack on astrology (*Math.* 5.50–85).

⁷³ In addition to the commentaries and Goold 1992: pp. lxxviii–lxxvii, see the treatment of Brind'Amour 1983*b*; cf. also Abry 1998*b* and 2006*a*.

⁷⁴ Cf. the following example of Goold 1992: p. lxxviii: 'having noted (by the sundial) that at the moment of nativity the Sun was risen (let us say) six hours, and having noted (from our ephemerides) that the Sun is (let us say) at the first point of Aries, we find that this calculation gives us a distance of three signs or 90 degrees of the ecliptic to the Horoscope, which would thus be at the first point of Cancer.'

is willing to go to considerable lengths to untangle the intricate astronomical issues that surround it. It is, therefore, extremely surprising when, in 3.483–509, the poet proposes yet another method for calculating the *horoscopus*, one that involves assigning 15° of the zodiac to each passing hour. Of course, this is nothing but the *vulgata ratio* in disguise, being predicated on equal rising times for all twelve signs. The poet's apparent lapsus elicits one of Housman's most biting comments:

Alas, alas! This alternative method of yours, my poor Marcus, is none other than the vulgar method which in 218–24 you said you knew, and which in 225–46 you exposed as false. The wolf, to whom in his proper shape you denied admittance, has come back disguised as your mother the goose, and her gosling has opened the door to him. (1903–30: 3, p. xxi)

By contrast, Pierre Brind'Amour cannot believe that Manilius would make such a blatant error ('the care with which this whole question of the Ascendant is treated rules out any mistake due to carelessness or inattention', 1983*b*: 148) and thus ventures that 3.483–509 is an interpolation. Of course, the poet may simply be closely, and mechanically, following an already confused source, or otherwise be combining sources without realizing their contradictions. Given our complete lack of information about the poet's use of sources and general *modus operandi*, the matter cannot be decided, and the passage will thus have to stand as a caveat that we may not always be in a position to understand properly what Manilius is up to.⁷⁵

The rest of Book 3 contains short discussions of three other topics that concern the zodiac. First (3.510–59), Manilius expounds two different theories of chronocrators (Gk. *χρονοκράτορες* 'time lords'), explaining which sign rules over which year, month, day, and hour of a person's life. Note that the poet's zodiac-based approach is unique: ancient astrology typically assigned lordship over particular periods of time, not to the signs, but rather to the planets, a practice whose traces are still discernible in the names of the days of the week in many modern languages: Sunday (Lat. *dies Solis*), Monday (Lat. *dies Lunae*), Tuesday (Lat. *dies Martis*; Tiu is the Germanic wargod and equivalent of Mars), and so on.

⁷⁵ Abry 1993*b*: 210 suggests that the confusion in the passage might be evidence for 'une composition rapide ou fragmentaire du poème'.

Being already on the topic of time, Manilius then tackles an issue of great importance in astrology, the question of the native's length of life (3.560–617). The poet's method of arriving at the final number of years is unparalleled in our other extant sources and involves both the horoscoping (?) sign and the place of the *dodecatropos* occupied by the Moon.

Finally, Manilius offers a lengthy description of the four 'tropic' signs, Cancer, Capricorn, Aries, and Libra, which house the solstices and equinoxes (3.618–82). Since no particular astrological significance attaches to these signs, this might appear to be just a passage whose 'true purpose is to ornament the end of the book with vignettes of the four seasons' (Housman 1903–30: 3, p. xxviii). At the same time, the section offers a last, poignant image of the zodiac, the primary astrological circle that serves as the basis for the *dodecatropos* and the circle of lots and that is here presented in its capacity as the path of the Sun on its annual course. If the zodiac is the repository of all astrological meaning, the tropic signs—or, to be precise, the very equinoctial and solstitial points⁷⁶—are really, according to Manilius, what 'makes the world go round':

una ergo in tropicis pars est cernenda figuris,
 quae moueat mundum, quae rerum tempora mutet,
 facta nouet, consulta alios declinet in usus,
 omnia in auersum flectat contraque reuoluat. (3.676–9)

Thus, one degree in the tropic signs must be marked, which moves the universe, makes different the state of things, changes the situation, deflects plans to a different outcome, turns everything to the contrary, and rolls it back.

Of course, the tropic signs are called thus because they (or at any rate Cancer and Capricorn) constitute the turning points of the sun's annual course; in Manilius' description, however, they have themselves become the forces that, as it were, turn the wheel of fortune.⁷⁷

⁷⁶ At the end of his treatment (3.680–2), Manilius mentions different scholarly opinions regarding the exact placement of the equinoctial and solstitial points within the tropic signs: some, he reports, place them at 8° (perhaps the most common method in the poet's time), some at 10°, some finally at 1° (the method used by astronomers today). This divergence, which is borne out by other ancient sources, reflects the fact that the equinoctial and solstitial points change over time owing to the precession of the equinoxes; see Goold 1992: pp. lxxxi–lxxxiv, Feraboli, Flores, and Scarcia *ad* 1.568–74, and Schmid 2005: 399–403.

⁷⁷ Generally on the astrological significance of the tropic signs and the division of the year in seasons, see Beck 2007: 54–8; for the possible political significance of this Manilian passage, see 4.2 below.

3.4. *MORES ET STUDIA (ASTRONOMICA 4 AND 5)*

If Books 2 and 3 of the *Astronomica* are primarily concerned with laying out the elements of a birth chart, Books 4 and 5 tell us about the effects of particular celestial phenomena on the native. However, while the bipartite division implied by the previous sentence largely obtains, a number of qualifications are in order. First, it is not as though Manilius has really taught us in Books 2 and 3 how to cast a horoscope: while we have been overwhelmed with technical details about finding the *horoscopus*, many elements of a chart still elude us. Second, Book 4 is not exclusively dedicated to celestial influence but also discusses a number of other topics having to do with the zodiac (a fact that links Book 4 to the ‘zodiacal’ Books 2 and 3, vis-à-vis Book 5 on the paranatellonta). And, third, Manilius’ treatment of the effects of the heavens on the native is extremely selective, taking into account only the signs of the zodiac and the paranatellonta. This selectivity will be subject to closer investigation in 3.5 below; at the moment, let us consider how Manilius presents those celestial influences that he chooses to discuss.

There are two long passages in which the poet enumerates the effects of particular constellations: 4.122–293 treats the character and lifestyle imparted by each individual sign, while 5.32–709, a section that takes up most of Book 5, sets out the influence of constellations outside the zodiac. The discussion in Book 4, which immediately follows the proem (dedicated to the absolute power of fate), is introduced as follows:

nunc tibi signorum mores summumque colorem
et studia et uarias artes ex ordine reddam. (4.122–3)

Now I shall relate to you in due order the character and predominant disposition and the interests and various skills of the signs.

Note that Manilius announces his topic not as the *mores*, *color*, *studia*, and *artes* of the human beings affected by the signs, but literally as the character and pursuits of the signs themselves (*signorum*). This metonymy points once more to the intimate connection that exists between heaven and earth: as we have seen in the discussion of the enmities among the signs of the zodiac, the two realms mirror each other, with the stars creating humans in their own image and imparting to them their own character traits. In addition to shaping the natives’ general disposition, the signs also determine their choice of profession. As it

turns out, Manilius focuses almost entirely on the latter topic, typically summarizing the person's emotional make-up only briefly in a few lines at the end of the treatment of each sign.⁷⁸ To exemplify the poet's procedure, let us look at his description of those born under Leo, who become hunters or butchers:

quis dubitet, uasti quae sit natura Leonis
 quasque suo dictet signo nascentibus artes?
 ille nouas semper pugnas, noua bella ferarum
 apparat, et spolio uiuit pecorumque rapinis;
 hos habet hoc studium, postes ornare superbos
 pellibus et captas domibus praefigere praedas
 et pacare metu siluas et uiuere rapto.
 sunt quorum similis animos nec moenia frenent,
 sed pecudum membris media grassentur in urbe
 et laceros artus suspendant fronte tabernae
 luxuriaeque parent caedem mortisque lucentur.
 ingenium ad subitas iras facilisque recessus
 aequali et puro sententia pectore simplex. (4.176–88)

Who is in doubt as to the nature of the huge Lion and what pursuits he decrees by his sign to those being born? He [the lion] always prepares new battles, new wars against animals, and lives off booty and his prey of flocks. They [the natives] are eager to decorate their high doorposts with animal skins and to nail caught spoils to their houses and to bring peace to the woods through fear and to live off what they catch. There are also those whose similar inclinations the city walls do not keep out, but they walk around with body parts of animals in the middle of the city, hang bloody limbs from their storefront, prepare slaughter for the sake of luxury, and consider killing a profit. They are given equally to sudden anger and easy withdrawal and have a simple mind in their pure heart.

The *natura* of the sign and the *artes* it grants to the people born under it clearly correspond to each other (cf. Beck 2007: 65–8). Note that the described nature of the sign Leo is really the nature of its underlying constellation, which was believed to represent a lion, specifically the Nemean Lion, whose catasterism is alluded to by Manilius in 2.32. In fact, its nature as depicted in the text is that of a *real* lion, who thinks of nothing but hunting and slaughter and feeds on the animals he kills (4.178–9). The sign is thus identified with its constellation, which in

⁷⁸ As Cumont 1937: 87 points out, the future profession of the native is a major topic of ancient horoscopes and astrological writing. Note that another central concern, the sex life, marriage, and offspring of the native (Cumont 1937: 177), plays next to no role in Manilius.

turn is identified with the creature it was before it became stellified. This *natura* of Leo is then replicated in the *artes* it prescribes (*dictet*, 176) for its natives,⁷⁹ as is apparent from the parallel emphatic placement at the beginning of the hexameter of the pronouns *ille* (178) and *hos* (180). Those born under the sign become either hunters (180–2) or butchers (183–6), the bourgeois representatives of the leonine instinct for killing animals. Their irascibility coupled with guilelessness (187–8) likewise reflects popular ideas about the disposition of actual lions.⁸⁰

The same principle of analogy is at work, more or less obviously, in the influences of the other zodiacal signs: Aries, for example, produces woolworkers; Taurus brings forth farmers; Gemini engenders poets and astrologers (since the twins were supposed to represent Apollo, the god of poetry, and Mercury, the inventor of astrology); fierce Scorpio makes for warriors and gladiators; Capricorn, the sign of cold midwinter, inspires metalworkers and providers of warm clothing; and under Pisces are born shipbuilders, helmsmen, and fishermen.⁸¹

This part of the *Astronomica* is the one that will seem the most familiar to modern readers whose knowledge of astrology is restricted to some general idea of the supposed characteristics of their ‘sign’ and to an occasional peek at the horoscope column in newspapers and magazines. However, in the case of this modern *Laienastrologie*,⁸² it is clear that a

⁷⁹ Here Manilius is playing nicely with the concepts of *natura* and *ars*, so dear to ancient theories of ethics and education: while the lion is bloodthirsty by nature, the bloody pursuits of the people born under it are in fact learned skills.

⁸⁰ It is interesting that Manilius does not mention the more aristocratic associations of the sign, which was often connected to the birth of kings (see Bouché-Leclercq 1899: 438–9 and Abry 1993a: 63–5, as well as 3.1 above with fn. 4 on the significance of Regulus), but instead concentrates on lion-like characters of a far lower class. This is in keeping with his general tendency to present the natives influenced by the signs (and *paranatellonta*) as ‘regular folk’ and, through their descriptions, to paint a picture of society as a whole. Also possible is that Manilius downplays the influence of Leo for the reason that this was the sign of Antony, who had attempted to exploit its royal potential in his propaganda (see Abry 1993a and 4.1, fn. 12 below).

⁸¹ Sextus Empiricus in his attack on astrology ridicules this very manner of thinking, by which the supposed characteristics of the signs (really of the catasterized creatures that make up the constellations) are believed to shape the dispositions of the native (*Math.* 5.95–102). He argues that it is ridiculous to assume that the constellation Leo bears any resemblance to an actual lion (*μάταιον τὸ οἶεσθαι ζώδιον κάλλιστον τὸν λέοντα τὸν ἐν οὐρανῷ ἀναλογίαν ἔχειν τῷ ἐπὶ γῆς*, 97) and that it will produce ‘leonine’ people.

⁸² *Laienastrologie* (‘layman’s astrology’) is a term often used to describe popular, non-technical predictive practices and notions of stellar influence. As Eriksson 1956: 12–13 points out, *Laienastrologie* is characterized by one-dimensionality, i.e., the concentration on one single astrological feature that is then viewed as all-determining, such as a person’s ‘sign’ (however understood). An example from antiquity is Trimalchio’s use of astrology

person's sign is always the Sun sign, that is, the sign in which the Sun is positioned at the moment of the native's birth and which can easily be determined by means of a calendar, given that the movement of the Sun through the zodiac remains pretty much the same from year to year.⁸³ However, 'serious' astrology, both ancient and modern, does not take account exclusively, or even primarily, of the Sun sign, but also considers the position of the other planets in the zodiac, the position of zodiac and planets in the *dodecatropos*, and so on and so forth. When Manilius thus speaks of the influence of the individual signs, under which circumstances does he envisage them as manifesting their powers? Astonishingly, the poet is entirely silent on this point.

On the assumption that Manilius imagines the signs to impart their characteristics to the native when they find themselves in an astrologically particularly meaningful situation, three possible scenarios present themselves: (1) the signs described in 4.124–291 are in the ascendant; (2) the signs are the Sun signs; and (3) the signs are the Moon signs. In favour of (1) it can be argued that the paranatellonta, whose influences on the native are discussed in detail in Book 5, are clearly imagined as imparting these influences when rising over the horizon. Since the treatment in Book 5 is the counterpart to our discussion in Book 4 (just as the paranatellonta themselves move in tandem with the zodiacal signs, next to which they are rising), it would make sense if in Book 4, too, the crucial moment were that of horoscoping.⁸⁴

As for scenario (2), Manilius does in fact a number of times mention the position of the Sun in the sign he is discussing (see Hübner 1982: 516–17). However, it is not clear whether he is describing the effects of the sign at the moment when it is actually housing the luminary or whether he is simply referring to the position of the Sun as a seasonal marker. In his description of Taurus, for example, the poet declares:

in Petron. *Sat.* 35 and 39 (cf. Eriksson 1956: 38–84), which is entirely predicated on (a vulgar version of) the analogy principle (character of the sign ~ character of the native) that we have seen at work in Manilius. On the kind of texts and tables used in *Laienastronomie*, see also Boll, Bezold, and Gundel 1931: 173–83.

⁸³ Since the solar year is not exactly identical to the calendar year, however, there are slight fluctuations. Thus, while, e.g., Aries is generally said to house the Sun from 20 March to 18 April, people born on the first or last days of this period ('on the cusp', astrologically speaking) may in fact still have the Sun in Pisces or already in Taurus, depending on the year in which they are born.

⁸⁴ The discussion of the influences of individual degrees of the zodiacal signs in 4.502–84 also envisages the signs as being in the ascendant; see Goold 1992: p. lxxxv and below with fn. 93.

ille suis Phoebi portat cum cornibus orbem
 militiam indicit terris et segnia rura
 in ueteres reuocat cultus. (4.144–6)

When he carries the disk of the Sun between his horns, he announces warfare to the earth and calls the fallow land back to its previous cultivation.

While the mention of the placement of the Sun is suggestive of the concept of the Sun sign, Manilius may be saying nothing more than that the agricultural year begins in spring, that is, when the Sun is in Taurus (of course, this provides a further reason why the sign would be associated with farming).⁸⁵

Scenario (3)—the idea that Manilius is talking about the Moon sign—goes back to Housman⁸⁶ and is based both on the general importance of the Moon in astrology (see the references in Housman 1903–30 *ad* 2.726) and on Housman's belief that in a pivotal later passage (4.773–7), where Manilius discusses the importance of Libra in the horoscope of Rome as well as in that of the emperor, the poet is speaking of the Moon sign.⁸⁷ It seems to me that this third hypothesis—which is not supported by anything in Manilius' actual discussion of zodiacal influences—has less to recommend it than the other two. Ultimately, though, what matters is not whether we are able to determine by some ingenious line of argument what Manilius must have meant, but the plain fact that the poet does not see fit to inform his readers about the circumstances under which the signs are supposed to have the described effects. As Wolfgang Hübner observes: 'Mehr als auf die astronomische Fixierung kommt es ihm auf die durchgängige Analogie zwischen Himmel und Erde an' (1982: 517). This assessment is doubtless correct, but Manilius' reticence still presents a puzzle and raises a number of important issues about the poet's procedure and purpose in the *Astronomica*. We shall return to this topic in 3.5 below.

After his exposition of the influences of the single signs, Manilius turns to a discussion of the decans (4.294–386). These constitute a

⁸⁵ The case is similar in 4.217–19, where Scorpio is figuratively said to 'cleave the earth' (*rimatur terras*, 219) with its sting and to 'mix seed into furrows' (*sulcis semina miscet*, *ibid.*) when the chariot of the Sun is among its stars (218)—a reference to late-autumn sowing. In 4.162–3, 203–4, and 254–5, allusions to the solstices and autumn equinox may simply serve to characterize the signs in question as tropic, without implying that the described influence on the native takes place when they house the Sun.

⁸⁶ See Housman 1903–30 *ad* 4.122–291 and his 5.156; his view is accepted by Goold 1992: p. lxxxv.

⁸⁷ As will be discussed in detail in 4.2, Housman's interpretation of this passage is wrong: Manilius is in fact discussing Libra as the Sun sign.

further division of the zodiac into thirty-six sections of 10° each (hence the name decan, Gk. *δεκανός*), in such a way that each sign consists of three decans. As mentioned in 3.2 above, this system goes back to Egypt, where the decans were originally thirty-six independent constellations along the path of the sun, and in many of our classical sources they still carry Egyptian names, even though they are also typically assigned to the tutelage of individual planets. None of this is on evidence in the *Astronomica*, where the decans are instead said to be ruled by the signs of the zodiac itself: the first decan of Aries belongs to Aries, the second to Taurus, and the third to Gemini, while the first decan of Taurus is ruled by Cancer, and so on, with the signs following one another in their regular order until all the decans are distributed.⁸⁸ Since the decans are a feature of the zodiac itself, one might have expected them to be discussed in Book 3, together perhaps with the *dodecatemoria*, a different way of dividing individual signs into smaller parts. It turns out, however, that Manilius' mention of the decans is but part of a larger argument that follows directly from his treatment of the influences of the zodiacal signs: looking at whole signs is too crude a method to determine the intricacies of celestial agency; to appreciate fully the power of the zodiac, one must consider far smaller sections. Since, in Manilius' system, the decans are, as it were, signs within signs, they allow for a blending of influences. And this explains—as the poet points out (4.380–6), in clear reference to the preceding section—why not every native of Aries is active in the textile industry after all, not all those born under Taurus are farmers, and so on.

But reckoning with decans is not enough. After a brief digression (4.387–407), in which Manilius assures his frustrated student that his labours will ultimately lead to an understanding of the universe,⁸⁹ the poet makes clear that, in a nativity, one needs to pay attention to the individual degrees of each sign of the zodiac (*sed proprias partes ipsas spectare memento*, 'but remember to consider the very degrees themselves', 411). As it turns out, a number of particular degrees in each sign

⁸⁸ Manilius' unorthodox system of having signs of the zodiac, not planets, rule the decans exactly parallels his treatment of the *dodecatemoria* (2.693–749; see 3.3 above): these are also typically governed by planets, but the poet assigns them to the signs.

⁸⁹ On this passage, see 6.1 below. Just like Manilius' discussion of his didactic method following the treatment of the *dodecatemoria* (2.750–87), this digression, too, is prompted by a topic of intricacy and subdivision that is perceived as intimidating to the student.

are sterile (cf. *sterilis*, 4.413), that is, they hamper or annul the sign's usual effect (4.426–9). The existence of these so-called *partes damnandae* ('degrees to be condemned, rejected', 4.443) in the heavens accounts for the similar situation on earth, where an element of destruction and deterioration is always present in all natural features of land and sea (4.416–24).⁹⁰

Manilius' enumeration of the *partes damnandae* of each sign is prefaced by a *captatio benevolentiae* (4.431–43) in which the poet points to the difficulty of his task and apologizes for the lack of attractiveness (*gratia*, 434; see also 441) of his verse while also maintaining that it is his sacred duty to present the intricacies of the divine universe exactly as they are.⁹¹ The following treatment of the hurtful degrees (4.444–97) is indeed a *tour de force*, considering that it is basically the versification of a list of numbers (cf. the table in Goold 1992: p. lxxxviii). To achieve his purpose, Manilius comes up with inventive methods of fitting Latin numerals into his hexameters.⁹² These, for example, are the *partes damnandae* of Virgo:

Erigones nec pars prima est nec sexta nec una
ad decimam nec quarta nec octava utilis umquam;
proxima uiginti numeris et quarta timenda est,
et quae ter decimam claudit sors ultima partem. (4.469–72)

The first degree of Virgo is never of use, nor the sixth, nor the first or fourth or eight after the tenth [i.e., the 11th, 14th, and 18th]; the one closest to, and the fourth after, the number twenty [i.e., the 21st and 24th] must be feared, and the last lot that concludes the thrice tenth [i.e., 30th] degree.

⁹⁰ The expression *partes damnandae* and Manilius' description of his subject matter in this passage as *cauenda* ('things [i.e., degrees] to beware of', 4.442) appear to imply the idea (alluded to also in 4.481–2 and 571–2) of a conscious choice of an astrologically opportune moment of birth—not so much on the part of the baby, one assumes ('infants about to be born can hardly "beware of" the injurious degrees', Goold 1992: 256 n. a), but on that of its parents, whom one can imagine as attempting to speed up or delay the birth (cf. Hübner 1984: 188). It is thus unnecessary to adopt the reading *canenda* ('things to be sung of') instead of *cauenda* (thus Goold 1992 and 1998, following Bühler 1959: 484–5), especially since *canenda* makes little sense in this context (cf. Volk 2002: 244 n. 92, though note that I am now fully convinced by *cauenda*, as I was not at the time of the earlier publication).

⁹¹ On this passage, see further Volk 2002: 242–4, as well as 5.3 below.

⁹² Manilius' exercise of *uariatio* has won the (somewhat grudging) admiration of his commentators. Scaliger 1600, commentary p. 303, calls attention to the 'fecunditatem ingenii poetae in istis morosis numeris concipiendis', while Bentley 1739 *ad* 4.434 notes that 'admiratione dignum est; quot modis in eadem re narranda variaverit faciem loquendi' (both quoted approvingly by Housman 1903–30 *ad* 4.444–97).

In the following section (4.502–84), Manilius keeps his focus on individual parts of the signs of the zodiac, expounding the influence of particular points of each sign (especially the beginning—that is, presumably, 1°—as well as, in a few cases, the middle and the last degree) at the moment of their rising, that is, when they are in the ascendant.⁹³ The ways in which signs affect the native work along the familiar principles of analogy and the equation of sign and constellation. Thus, for example, the first point of Aries (4.505–17) brings forth daredevils, no doubt because of the Ram's butting horns, as well as travellers, owing to the mythological identification of the animal with the golden-fleeced specimen that carried Phrixus to Colchis.

From his examination of the influence of the zodiac on the native, Manilius continues to a discussion of the power of the signs over particular geographical regions: *nunc age diuersis dominantia sidera terris | percipe* ('now come, learn about how the constellations govern particular countries', 4.585–6). In so doing, the poet momentarily moves from genethliology to mundane astrology, considering the power of the stars, not over individuals, but over the whole earth. This extended discussion of zodiacal geography (4.585–817) is a self-contained piece; it does, however, continue some of the concerns and leitmotifs of earlier passages.⁹⁴

Manilius begins with a leisurely description of the *oikumene*, following the shore lines of the Mediterranean (4.595–695). He then explains that the ethnic and national differences among the peoples of the earth are due to the fact that different signs of the zodiac dominate different regions, crucially influencing the appearance and lifestyle of their inhabitants (4.696–743). Manilius explains this in analogy to the concept of *melothesia*, the belief that an individual's body parts also fall under the governance of particular signs (4.701–10; cf. 2.453–65). We thus have a double mirroring of macrocosm and microcosm: the structure of the heavens (macrocosm) is replicated in the two parallel microcosms of earth and man. After expounding in detail which countries belong to which signs (4.744–806), Manilius sums up:

⁹³ Housman 1903–30: 5.156 points out that the power of the (individual degrees of) signs in the ascendant is here introduced as something of a new concept (4.502–4), which militates against the idea that the zodiacal influences in 4.122–293 are already those exercised by the signs when horoscoping. Note that, in the intervening passages about the decans and the *partes dammandae*, Manilius gives no indication as to the circumstances under which they supposedly wield their power.

⁹⁴ On Manilius' zodiacal geography, see Abry 1997 and 2000 and de Callatay 2001.

sic diuisa manet tellus per sidera cuncta,
e quibus in proprias partes sunt iura trahenda;
nam eadem, quae sunt signis, commercia seruant,
utque illa inter se coeunt odioque repugnant,
nunc aduersa polo, nunc et coniuncta trigono,
quaeque alia in uarios affectus causa gubernat,
sic terrae terris respondent, urbibus urbes,
litora litoribus, regnis contraria regna;
sic erit et sedes fugienda petendaque cuique,
sic speranda fides, sic et metuenda pericla,
ut genus in terram caelo descendit ab alto. (4.807–17)

Thus the earth is divided among the signs, whose laws must be applied to their own areas of influence. For they keep the same kinds of interactions that the signs have: just as these join each other and fight in hatred, now in polar opposition, now connected in a trigon, and whatever other cause brings forth their feelings, in the same way countries relate to countries, cities to cities, shores to shores, and kingdoms to hostile kingdoms. And everybody must seek and avoid a dwelling place, hope for trust, and fear dangers according to the way in which his ethnicity comes to him from high heaven.

On earth as it is in heaven: man is ruled by the stars, not only through his horoscope, but also in terms of his dwelling place and country of origin.

The last astrological topic of the book is a discussion of the so-called ecliptic signs, the signs that happen to house the Moon during a lunar eclipse (4.818–65). An eclipse has the result of cancelling out any effect a given sign may have, and not only the Moon sign itself, but also the Sun sign (which in a lunar eclipse is in opposition). Once these signs have recovered their strength (which can take over a year), the weakening effect passes on to the two signs that precede them. It is not entirely clear why Manilius brings up this topic at this particular point. In other sources, the question of eclipses is closely related to the topic of zodiacal geography (since eclipses were supposed to affect different regions differently; see, e.g., Ptol. *Tetr.* 2.6), but Manilius merely juxtaposes them without attempting to connect them in a meaningful way. In a sense, though, the ‘eclipsing’ of particular signs provides a fitting conclusion to the poet’s discussion of zodiacal influence in general: while the zodiac is powerful, there are occasions when it fails to have its full effects. Interestingly enough, Manilius once again uses the example of the earth to make his point (4.821–39): given that there are natural disasters such as droughts, earthquakes, and floods on earth, it

is not surprising that similar disruptions happen in the heavenly realm as well.⁹⁵

After the elaborate finale of Book 4, in which Manilius once again responds to his frustrated student and in elevated language endeavours to demonstrate that the secrets of the universe are indeed there for human beings to uncover,⁹⁶ the poet in Book 5 turns to the subject of the paranatellonta.⁹⁷ He presents this choice of topic as something of a surprise, claiming that ‘another (poet) would have ended his journey here’ (*hic alius finisset iter*, 5.1) and would, after discussing the signs of the zodiac, have returned to earth (5.1–7). Manilius, however, has received from the universe itself the ‘order’ (cf. *mundus iubet*, 5.8) to continue his tour of the fixed stars (5.8–26) and to sing about the powers of the extrazodiacal constellations both at rising and setting (5.27–8) and about their relative position vis-à-vis the twelve signs (5.29).

Discussions of paranatellonta are found in other sources as well and present a kind of astronomical/astrological subgenre. Already Aratus dedicates part of his *Phaenomena* to an enumeration of constellations that rise (and set) together with the individual signs of the zodiac (559–732), doing so for the expressed purpose of facilitating the telling of time at night: from sunset to sunrise, six signs rise, but, since their constellations may not always be observable, it is good to know which other stars are rising at the same time. Numerous later texts also list paranatellonta, whether simply as a way of describing the sphere of fixed stars or, as in the case of Manilius, in tandem with a discussion of these constellations’ supposed astrological powers (assuming that not only the zodiacal signs have astrological significance, but the other fixed stars as well, is yet another way of ‘diversifying’ celestial influence and making sure that the variety of human fates is matched by a variety of heavenly causes). Many of these sources include not only the canonical Greek constellations known from Aratus and his followers, but also a wealth of others that are clearly of non-Greek, that is, Mesopotamian or

⁹⁵ This line of argument is reminiscent of the one Manilius employs apropos the *partes dammandae* in 4.416–29. In both cases, the poet invokes the principle of universal mutability (cf. esp. *est aequale nihil*, ‘nothing stays the same’, 416, and *scilicet immenso nihil est aequale sub aeuo*, ‘surely nothing stays the same throughout the passage of long time’, 821) but then endeavours to explain this changeability with reference to fixed astrological rules.

⁹⁶ The passage is discussed in greater detail in 6.1 below.

⁹⁷ On Manilius’ paranatellonta, see Hübner 1982: 515–634, 1984: 174–213, and 1993.

Egyptian, origin.⁹⁸ Franz Boll, who in his masterly *Sphaera* (1903) first described the genre of paranatellonta writing and edited much of the material, therefore used the occasionally attested phrase *sphaera barbarica* as the designation for such texts. Strictly speaking, a *sphaera barbarica* ought to contain only ‘barbarian’, that is, non-Greek, constellations,⁹⁹ but in practice such texts often discuss a mixture of Greek and Mesopotamian/Egyptian material. They do so typically without showing any awareness of their own syncretism or of the possibility that they may be describing the same stars over and over again—whether as parts of different constellations, or as the same constellation with a different name.¹⁰⁰

Manilius’ paranatellonta are typically just the regular Greek constellations already enumerated in Book 1 of the *Astronomica*. However, Boll 1903: 298–9 in a stroke of genius was able to identify even among them a constellation of non-Greek origin. According to the poet, one of the paranatellonta of Libra is the so-called *Haedus*, or Kid:

at cum secretis improvidus Haedus in astris
erranti similis fratrum uestigia quaerit
postque gregem longo producitur interuallo... (5.311–13)

But when heedless Haedus among his separate stars, similar to one who has gone astray, is looking for the tracks of his brothers and rises behind his flock after a long interval...

The appearance of this constellation is quite surprising, since, as already Scaliger wanted to know, ‘quis est iste Hœdus?’ (1600, commentary p. 418). In the description of the fixed stars in Book 1, we were told about the Haedi (in the plural), which are located close to Auriga (as a matter of fact, these are not a constellation, but rather two stars, ζη, in

⁹⁸ The most prominent example of such a text is what remains of the work of Teucer of Babylon; see Boll 1903: 5–21 and 31–52, as well as *passim* in 90–346. Hübner 1993: 21 suggests that Teucer may have been a source for Manilius; this would depend on the date of the former, who has been placed sometimes in the first century BC and sometimes in the first century AD.

⁹⁹ The title appears to have been used in this strict sense only by Nigidius Figulus, who wrote both a *Sphaera Graecanica* and a *Sphaera barbarica*, with the first containing the Greek and the second the non-Greek constellations; see Boll 1903: 349–63.

¹⁰⁰ On the name and history of the *sphaera barbarica* genre, see Boll 1903: 349–63. Housman 1903–30: 5, pp. xl–xliii, in reaction to Boll, questions the wisdom and historical accuracy of referring to texts such as Manilius’ discussion of the paranatellonta as *sphaera barbarica*. He does have a point (at least in Manilius, nearly all the constellations are in fact Greek, and it is at any rate confusing to use ‘barbarian’ to mean ‘part barbarian and part Greek’), but the designation has caught on nonetheless.

Auriga itself), but not about a lone Kid in a completely different part of the sky. Manilius is well aware of these other Haedi, paranatellonta of Aries and as such already discussed in 5.102–17, and he uses their existence to paint a funny and pathetic picture of this particular solitary and clueless (*improvidus*, 311) Kid, who is lost and looking for his ‘brothers’, from whom he has become separated (311–13).¹⁰¹ The only other author who mentions a Haedus that rises together with Libra is the fourth-century AD astrological writer Firmicus Maternus (*Mathesis* 8.12.3–4); since, however, his discussion of the paranatellonta is clearly based on that of Manilius, it cannot be used as independent evidence.¹⁰²

Boll solved the riddle of Haedus by referring to Teucer of Babylon, who among the paranatellonta of Libra mentions a certain *τραγός* ‘billy-goat’. Since a goat is close enough to a kid, Boll proposed that this is the constellation Manilius means.¹⁰³ Interestingly, the *τραγός* belongs to the so-called *dodecaoros* (Gk. *δωδεκάωρος* ‘(system of) twelve (double) hours’), a set of twelve constellations along the zodiac that Teucer treats as a separate category and that Boll suggested goes back, via Egypt, to Mesopotamian sources (1903: 295–346). Manilius would thus have included among his paranatellonta at least one ‘barbarian’ constellation¹⁰⁴—perhaps unwittingly, if he was actually aiming for a list of purely Greek paranatellonta but was in the case of *Haedus/τραγός* (and perhaps *Fides/λύρα*; see fn. 104) misled by the familiar name used in his source.¹⁰⁵

¹⁰¹ As Hübner 1993: 30 points out, the Kid is as far away from his supposed family as can be: since he rises with Libra and they with Aries, the somewhat euphemistic *longo interuallo* (313) actually connotes exact opposition.

¹⁰² That Firmicus modelled his treatment of the paranatellonta on Manilius (without giving his predecessor any credit) was first seen by Scaliger 1600, commentary pp. 4, 385, and 472, and 1655, commentary p. 334. On the relation between the two writers, see further Boll 1903: 394–412, Housman 1903–30: 5, pp. xliii–xliv, Skutsch 1910, Fontanella 1991, and Abry 1999a.

¹⁰³ This identification has been generally accepted, except by Housman 1903–30: 5, pp. xliv–xlvi (and apparently his follower Goold 1992, who does not even mention it).

¹⁰⁴ Boll 1903: 266–8 also explained Manilius’ mysterious *Fides* (5.409–15)—a supposed paranatellon of Capricorn in addition to the other celestial lyre, the canonical Lyra, which rises together with Libra (5.324–38)—with reference to a constellation that Teucer calls *δυσώνυμος λύρα* ‘ill-omened lyre’. This identification has found fewer adherents, though see Hübner 1982: 574–6 and 595–6, 1984: 182–7, and 1993: 25–9 (Hübner generally wishes to find many more traces of non-Greek constellations in Manilius’ fifth book; see esp. 1984: 174–213 and 1993).

¹⁰⁵ See Boll 1903: 386–7. The description of Haedus, however, makes me wonder whether Manilius is truly unaware that the constellation belongs to a foreign system and is not instead self-consciously alluding to this fact. Perhaps the Kid is *improvidus* (5.311)

Commentators typically shake their heads over Manilius' general 'kindliche Unwissenheit' (Boll 1903: 386) in astrological matters and his 'heinous...violations of astronomical accuracy' (Goold 1992: p. xcvi) in Book 5 in particular. The poet's claims about which constellation rises with which (degree of which) zodiacal sign are frequently off by a wide margin—and that is not even to consider the fact (not mentioned by the poet) that these simultaneities differ from longitude to latitude. Apparently, to quote Scaliger, 'Manilius nesciebat quid scribebat' (1600, commentary p. 387).¹⁰⁶

This may well be true, but it is also clear that Manilius' discussion is not meant to be an astronomical catalogue of constellations or table of rising times. Once again, the poet's focus is on the parallels between heaven and earth, the ways in which the world above and the world below mirror each other and in which the manifold constellations produce manifold types of human beings. According to the principle of analogy already known to us from Manilius' discussion of the influences of the zodiacal signs, the paranatellonta, too, bring forth people who are, in one way or another, similar to the creatures or objects represented by the constellations.¹⁰⁷ Again, the stress is largely on the natives' professions and only secondarily on their characters. Thus, for example, Argo at its rising gives birth to sailors (5.32–56), Auriga to charioteers (67–101), Procyon to dog-breeders and manufacturers of hunting equipment (197–205), Ara to priests (339–47), Ophiuchus to snake-handlers (389–93), and so on. All in all, the poet treats thirty-three paranatellonta in what is the longest continuous passage of the poem (5.32–709) and, in so doing, paints a detailed

and *erranti similis* (312) because, indeed, he finds himself *secretis... in astris* (311)—that is, in a *sphaera* in which he is not at home (cf. Montanari Caldini 1993a: 203). Note that *astris* is changed by Bentley 1739 to *aruis* and by Housman 1903–30 (followed by Goold 1992 and 1998) to *antris*, with the argument that, to quote Housman 1903–30 *ad loc.*, 'nulla sunt secreta astra'. However, 'separated stars' makes tolerable sense even if we are just considering the separation of Haedus from his 'brothers'; it works even better if the passage has the additional meaning suggested here.

¹⁰⁶ Housman 1903–30: 5, p. xxxix cites this verdict approvingly but cannot refrain from taking the earlier critic to task for his faulty use of Latin mood: he remarks that Scaliger's 'judgment is sounder than his grammar'. As Grafton 1983–93: 1.201 + 328 n. 100 points out, Scaliger used variations of the same expression repeatedly to castigate Manilius' ignorance.

¹⁰⁷ See Hübner 1984: 175–82, who points out that the influences of the paranatellonta are linked not only to the supposed nature of the constellations themselves but also to that of the respective signs of the zodiac together with which they rise. He suggests that Manilius may on occasion knowingly have manipulated the astronomical facts to create more meaningful connections between zodiac and paranatellonta.

and, as many readers have found, utterly charming picture of human society.¹⁰⁸ The discussion is a treasure trove of realia, including, for example, descriptions of different swimming techniques (423–30, apropos of the swimmers born under Delphinus) and accounts of the production of various types of fish sauce (667–81, apropos of the fishermen and fishmongers engendered by Cetus). There is a strong element of humour and whimsy, with the result that this part of the poem can be viewed as a veritable *comédie humaine*.

That Manilius intended his paranatellonta as a kind of comedy can be inferred from his praise of the Greek comic writer Menander (4th c. BC), who serves as an example of his genre in a discussion of the natives of Cepheus (449–85), who become writers, of tragedy as well as of comedy. While the poet does not say so explicitly, we are probably meant to conclude that Menander himself was born at the rising of Cepheus. His achievements are described as follows:

quis in cuncta suam produxit saecula uitam
doctior urbe sua linguae sub flore Menander,
qui uitae ostendit uitam chartisque sacrauit. (5.474–6)

In this way [i.e., by writing comedies] he extended his life through all eternity, he, Menander, more learned than his own city [Athens] when its language flourished, he who showed life to life and laid it down in books.

Given that Manilius hardly ever mentions earlier poets by name and only rarely talks about (even the smallest aspect of) anyone's actual horoscope, the emphasis on Menander calls attention to itself.¹⁰⁹ It makes sense to assume that the poet wishes to give special prominence to the author who, in this particular part of his work, is his model (if not in actual genre, at least in spirit) and that, in his discussion of the paranatellonta, Manilius is likewise concerned with 'showing life to life',

¹⁰⁸ See, e.g., van Wageningen 1928: 1128. For lists of Manilius' paranatellonta, see Hübner 1984: 180–1 and Goold 1992: pp. xciv–xcv.

¹⁰⁹ For Manilius' discussion of literary history in the second proem, see 5.3 below. The most prominent historical horoscope referred to in the *Astronomica* is that of Augustus (see the discussion in 4.2 below), in addition to those of Rome (4.773–5) and possibly of Manilius himself (if he was born in Gemini, the sign that—as explained in 4.152–61—produces astronomers; see Volk 2002: 220 and MacGregor 2004: 154 n. 29, as well Abry 1993c: 202 for the idea that the passage about Gemini constitutes a homage to Germanicus, who was born with the Sun in this sign); for other passing allusions to the (real or imagined) nativities of historical characters, see 4.3 below. Note that the absence of the discussion of actual horoscopes is a striking feature that makes the *Astronomica* different from other works of astrological literature; for possible reasons for this, see 3.5 and 5.1 below.

that is, presenting a mirror in which society can view itself.¹¹⁰ Of course, in the context of the *Astronomica*, this mirror is to be found in the sky: we only have to look up at the constellations to know who we ourselves are.

Manilius' treatment of the paranatellonta is interrupted after verse 5.709 by a lacuna, and when the text continues, we find ourselves in a discussion of stellar magnitude.¹¹¹ The classification of individual stars according to their brightness probably goes back to the second-century astronomer Hipparchus, who distinguished six different orders of magnitude. In Manilius, the stars of first and second magnitude are lost in the lacuna, but we do have the poet's exposition of the third magnitude (5.710–15) and his summary words on the remaining three magnitudes (716–17).¹¹² He follows this up with the observation that the majority of stars belong to the smallest magnitude and are visible only on really dark nights when there is no moon (718–25). On those occasions, the number of stars in the sky equals that of flowers or grains of sand, of ocean waves or leaves falling in the forest (7.726–33).¹¹³ And, to illustrate once more the hierarchy of their different magnitudes, Manilius makes use of an elaborate simile:¹¹⁴

utque per ingentis populus describitur urbes,
 principiumque patres retinent et proximum equester
 ordo locum, populumque equiti populoque subire
 uulguis iners uideas et iam sine nomine turbam,
 sic etiam magno quaedam res publica mundo est,
 quam natura facit, quae caelo condidit urbem.

¹¹⁰ Comedy was considered an especially realistic genre, and Menander's works in particular were praised for their closeness to life (see the passages quoted by Housman 1903–30 *ad* 5.476). On the programmatic significance of the mention of Menander, see Bühler 1959: 484 and esp. Hübner 1980: 61–6 (with reference to B. Soldati) and 2000: 259–64; on Manilius' realism, esp. in Book 5, see Salemme 2000: 125–43.

¹¹¹ Goold 1983: 66–7 argues on the basis of earlier work on the lost archetype of the *Astronomica* (Goold 1954, with a response by Gain 1971; see also Goold 1998: pp. xv–xx) that the lacuna comprised either 176 or 220 lines; for his suggestion that it contained a discussion of the planets, see 3.5 below.

¹¹² On Manilius' discussion of stellar magnitude, see Boll and Bezold 1918: 87–9, who point out that, in addition to brightness, the passage also shows an awareness of a system of different star colours.

¹¹³ Here Manilius quite originally manipulates the usual poetic topos by which the stars are an example of something that exists in infinite number (cf., e.g., Catull. 7, where Lesbia's kisses are supposed to be equal in number to the grains of Libyan sand and the stars that look down on lovers at night): here it is the very number of stars that needs to be illustrated with reference to other comparanda (see Schindler 2000: 237–42).

¹¹⁴ On the simile, see esp. Flores 1966: 83–9 and 1991a, Paschoud 1982: 151–3, Landolfi 1991b, Schindler 2000: 234–48, and Abry 2007a.

sunt stellae procerum similes, sunt proxima primis
sidera, suntque gradus atque omnia iura priorum:
maximus est populus summo qui culmine fertur;
cui si pro numero uires natura dedisset,
ipse suas aether flammis sufferre nequiret,
totus et accenso mundus flagraret Olympo. (5.734–45)

And just as the populace is divided up in great cities, and the senators hold the most prominent position, and the equestrian order the next place, and you see how after the equestrians follow the people, and after the people, the powerless crowd and nameless masses—thus is there a commonwealth also in the great heaven, which nature brings about, creating a city in the sky. There are stars similar to nobles, constellations close to these leaders, and there are orders and all leaders' privileges. Greatest in number are the common people who are carried along on the firmament: if to them nature had given strength in proportion to their number, heaven itself would not be able to bear its flames, and the whole universe would burn, with Olympus having caught fire.

The stars constitute a commonwealth with a well-defined class system, in which the multitude of the lower orders is restrained by 'nature' (cf. 739 and 743) from wielding too much power—so as to avoid cosmic disaster (744–5).¹¹⁵ As the social structure of this *res publica* in the sky (738) unmistakably resembles that of Rome, Manilius here appears to provide a sort of heavenly legitimation for the *res publica* on earth and its inherent hierarchies, betraying a fair amount of political conservatism in his disdain of the lower classes, whose empowerment he cautions against. It is on this note that the book concludes—and the *Astronomica* as we have it.¹¹⁶

Manilius' comparison of the community of stars with the city of Rome is yet another example of the analogy between heaven and earth that is, as we have seen, a leitmotif in the *Astronomica*.¹¹⁷ This mirroring

¹¹⁵ It is possible to view Manilius' city of stars as a variant of the Stoic *kosmopolis*, the idea that the whole cosmos is a city inhabited by gods and men (cf. Bidez 1932, Schofield 1999: 57–92, and now Vogt 2008: 65–110); descriptions of the stars as citizens of a *polis* are found in Philo, *De specialibus legibus* 1.13–14 and Plut. *Comm. not.* 1076f–1077a (cf. also *Lynchopolis*, the 'city of lamps', in Lucian, *Ver. hist.* 1.29). Flores 1991a discusses a parallel in Chinese astrology.

¹¹⁶ Some scholars feel that the simile provides a fitting ending to the *Astronomica* as a whole and must have been intended as such by the poet; others disagree, especially those who posit (an) additional book(s) or believe that the poem is unfinished (cf. Landolfi 1991b: 256 n. 45, Schindler 2000: 235 n. 65, and Abry 2007a).

¹¹⁷ See, e.g., Hübner 1982: 517 and 1988: 26–9 and Abry 1993b: 201–10. Generally on resemblance as a cosmological principle, see Foucault 1973: 17–45 (largely on the sixteenth century, but illuminating for Manilius as well); on thinking in correspondences as a fundamental characteristic of astrology and other esoteric disciplines, see von Stuckrad 2003: 17, with reference to A. Faivre (cf. Faivre 1994: 10–11).

effect between above and below is obviously a function of the poet's astrological belief system: according to the tenets of 'hard' astrology, everything on earth is caused by the behaviour of the heavenly bodies, and in Manilius, as in other sources, this causation works along a principle of similarity by which heaven creates earth in its own image. Both the human body and the earth as a whole are thus veritable microcosms (with the signs of the zodiac literally mapped onto them according to the principles of *melothesia* and zodiacal geography), and the dispositions and actions of human beings replicate in detail those of the signs that govern their births.

This 'on earth as it is in heaven' principle raises an epistemological problem, however. From where do we get our information about the characters and relationships of the heavenly bodies, which are so crucial in shaping our own? We can observe the rising and setting of Leo, but what tells us about the sign's connection with slaughter? How do we know what the heavens are like? Manilius throughout the *Astronomica* insists that he as a teacher of astrology is inspired directly by the *mundus* itself, which reveals to him its secrets,¹¹⁸ but this pious claim cannot dispel the suspicion that ultimately the presumed situation in the heavens has been inferred from the situation on earth. What lies below mirrors what lies above because, as a matter of fact, the above is modelled on the below.

To allow for the possibility that the heavens are, at least in part, a human construct based on analogy obviously threatens the unidirectional causality inherent in 'hard' astrology, and Manilius shows himself to be well aware of the problem. In the context of his history of hexameter poetry in the proem to Book 2, the poet criticizes other authors who have written about the stars:¹¹⁹

astrorum quidam uarias dixere figuras,
signaque diffuso passim labentia caelo
in proprium cuiusque genus causasque tulere. (2.25–7)

Some have treated the various patterns of the stars and have traced back the constellations that revolve everywhere on the wide sky each to its own origin and cause.

¹¹⁸ See, e.g., 1.11–12, 2.115–25, and 4.893–7 and cf. Volk 2001: 90–1 and 2002: 215–24. On the motif of heavenly self-revelation, see further 5.3 and Ch. 6.

¹¹⁹ On this passage, already discussed briefly in 2.3 above, see further 5.2 below, with references in fn. 33.

These poets—presumably Aratus and his Latin followers—explain the origins (cf. *genus* and *causas*, 27) of the constellations with reference to the catasterism of human beings, animals, and objects, and in the lines that follow (28–36), Manilius gives a quick summary of some of the popular star myths found in their works. Then, however, he delivers the following verdict:

quorum carminibus nihil est nisi fabula caelum
terrae composuit mundum quae pendet ab illo. (2.37–8)

In their songs, the sky is nothing but a story, and earth has made up heaven, though it [earth] depends on it [heaven].

Manilius' point is that these poems misrepresent the sky by turning it into a *fabula* (which here would appear to have the connotations of an old wives' tale): since, according to the astrological principle of causation, earth 'depends' (*pendet*, 38¹²⁰) on heaven, earth cannot 'make up' heaven. *Terraque composuit mundum* (ibid.) probably means both that these terrestrial poets 'make up', that is, invent, stories about the sky and that, in their poems, the constellations are literally constituted of creatures from earth. In the eyes of Manilius, this is an utterly perverted way to conceive of the relationship between heaven and earth.

As we have seen again and again, though, Manilius himself makes ample use of the notion of catasterism, and his discussion of the influence of both zodiacal signs and paranatellonta is based firmly on the identification of each constellation with the character, creature, or object it represents. The poet even seems to be making a special effort to personify the stars, ascribing to them full-fledged personalities, emotions, and alliances and thus effectively 'humanizing' the sky.¹²¹ The vivid anthropomorphism and zoomorphism of Manilius' constellations is perfectly in keeping with his poetic medium and with the literary taste of the period, which also saw the composition of Germanicus' *Aratea* and Ovid's *Fasti*, two poems that present elaborate aetiological star myths. At the same time, the poet's use of the literary motif of catasterism, while

¹²⁰ According to the catasterism poets, by contrast, the constellations are *ex uariis pendentia casibus* ('dependent on various events [i.e., having come into being because of various events on earth]', 2.35); of course, in Manilius' universe, it is the stars that 'govern the various events that concern men' (*sidera diuersos hominum uariantia casus*, 1.2).

¹²¹ See, e.g., Bouché-Leclercq 1899: 158 on the poet's treatment of zodiacal relationships: 'Manilius, dont l'imagination refuse de se laisser emprisonner dans les mathématiques, a une façon plus humaine de concevoir les rapports des signes entre eux.'

enhancing the aesthetic qualities of his work, would appear to be at variance with his own stated cosmological principles.¹²²

If Manilius' refusal, or inability, to jettison the traditional anthropomorphizing way of talking about the stars lays him open to a charge of 'earth making up heaven', the poet's use of similes and analogies (another typically 'poetic' feature) additionally has the potential to undermine the posited unidirectional relationship between above and below. Given the inherent parallelism between heaven and earth in Manilius' astrological system, it is not surprising that the poet should on occasion compare the two, pointing out their similarities. Strictly speaking, any terrestrial state of affairs is, of course, caused by the analogous celestial one, and on many occasions Manilius does not fail to point this out. For example, in his discussion of the signs that 'see', 'hear', 'love', and 'trick' one another, he first explains the general principle of these zodiacal relationships (2.466–82) and then adds, *sicut naturas hominum plerasque uidemus* ('just as we see most human beings to be disposed', 483). This comparison would seem to be a simple illustration of the point at hand (just as people have personal likes and dislikes, so do the signs)—were it not for the fact that it is followed by the relative clause, *qui genus ex signis ducunt formantibus ortus* ('who derive their nature from the signs that shape their birth', 484). Thus, it turns out, it is not human relationships that explain the relationships of the signs but the other way around, as is necessary in a universe that works along the lines of 'hard' astrology.¹²³

On other occasions, though, Manilius' use of analogy raises the question which of the two terms compared can properly be said to be like the other. As mentioned above (fn. 95), in his discussions of both the *partes damnandae* (4.416–29) and the ecliptic signs (4.821–40) the poet details the ever-changing conditions on earth (where fertility is always threatened by sterility) to illustrate that mutability is a constant

¹²² Cf. Montanari Caldini 1987a: 169–71, who points out that by identifying the signs not only with terrestrial creatures in general but with the protagonists of specific myths (e.g., Aries as the ram of Phrixus) and by determining their influences accordingly (the natives of Aries as restless travellers), Manilius is assigning an astrological function to myth that contradicts his principle of unidirectional stellar influence. On the contradictions inherent in Manilius' use of catasterisms, see also Romano 1979a: 51–5 and Salemme 2000: 75–104.

¹²³ In 2.603–7 likewise, the tendency towards aggression of both zodiacal signs and human beings is clearly attributed to the influence of the former on the latter; and in 4.807–17, the relationships of geographical regions are said to resemble those of the signs for the very reason that they are caused by them.

in the world and thus also affects the stars: *sic etiam caeli partes uariantur in astris* ('thus even in the sky the degrees of the signs exhibit differences', 4.425) and *sic tempore certo | signa quoque amittunt uires sumuntque receptas* ('thus at certain times the signs, too, lose their powers and then regain them', 839–40). The use of *etiam* and *quoque* is remarkable: 'even' the stars follow the behaviour established on earth. We would rather expect Manilius to claim that changes on earth are actually caused by the *partes damnandae* or 'eclipsed' signs (not an unreasonable supposition), but in these two cases, the poet does not invoke astrological causation and is content simply to point out the parallels between the two realms.

Finally, the great simile at the end of Book 5 makes it positively sound as though the hierarchy of the stars were an imitation of the Roman social order rather than the other way around. While most of the passage simply compares the *res publica* of the sky with that on earth (cf. *ut... sic*, 'as... thus', 5.734 and 738; *similes*, 'similar', 740), Manilius crucially also implies that the first is modelled on the second:

*sic etiam magno quaedam res publica mundo est
quam natura facit, quae caelo condidit urbem.* (5.738–9)

Thus there is a commonwealth also in the great heaven, which nature brings about, creating a city in the sky.

This makes it sound as though nature deliberately set out to found a city for the stars, imitating the pre-existing social system of Rome.¹²⁴ Within Manilius' cosmology, the opposite must be the case, but, for once, the poet has let himself be carried away (?) by the power of his simile and its movement from the familiar (Rome) to the unfamiliar (the cosmos).¹²⁵ The resulting ambiguity has additional disquieting implications: if the Roman social order is modelled on that of the heavens, its legitimacy and stability would seem to be astrologically sanctioned; if, by contrast, the hierarchy of the stars follows that of the denizens of Rome, this may bode less than well for the status quo in heaven. In the last three lines of the simile, Manilius assures us that a cosmic conflagration is impossible, since the lowest class of stars does

¹²⁴ It should be noted that the crucial terms *res publica* (738) and *urbem* (739), with their particularly Roman connotations, are emendations by Bentley and Barth, respectively. They are, however, virtually guaranteed by the context and have been accepted by all recent editors.

¹²⁵ Landolfi 1991b: 248 points out that this kind of logical *hysteron proteron* is inherent in any comparison of the heavens to a human state.

not have 'strength' (*uires*, 5.743) in proportion to its number.¹²⁶ However, the parallel with Roman society puts the situation in a different light: especially after the Civil Wars and their concomitant social upheavals, the idea that at least part of the *populus* might gain hitherto unimaginable powers may no longer have seemed outlandish, and if the social order at Rome could be shaken up, so too, perhaps, could that of the celestial *urbs* that so closely resembled its counterpart on earth.

It is suggestive that the *Astronomica* (at least in its present form) should end on the theme of cosmic destruction¹²⁷—however much the poet assures us that such an event is impossible and however unimaginable it would be, in Manilius' world, for any event on earth to influence the goings-on in heaven. Only a few decades later, Roman poets such as Lucan and Seneca (reared on Stoicism and familiar with Manilius) would actively explore the possibility that catastrophic events in the human realm might change even the workings of the heavenly bodies, doing away with the reassuring unidirectionality of the *Astronomica's* cosmos and presenting instead a disturbingly interconnected universe.¹²⁸ Although the worlds of Lucan and Seneca are not ones that Manilius would have recognized, the *Astronomica's* insistence on the 'continuous analogy between heaven and earth' (cf. Hübner 1982: 517; quoted above), and the ambiguities resulting from it, may have helped pave the road to a cosmology in which the orderly movement of the stars was no longer a guarantee for the similar behaviour of human beings (cf. Abry 2007a: 666).

¹²⁶ This harks back to the discussion, in 1.456–73, of the shape of the constellations, which are not entirely filled up with stars, since heaven would otherwise go up in flames (*non poterit mundus sufferre incendia tanta*, 'heaven will not be able to bear so much fire', 1.461). In this context, too, Manilius describes the stars in political and sociological terms, referring to the least brilliant ones as *uulgi* ('mass', 471). The metaphor carries over into the following description of the absolutely regular movement of the fixed stars: they 'obey laws' (*legibus...parent*, 1.479), and 'their crowd is nowhere harmful' (*nusquam turba nocet*, 1.480). Generally on the use of political and sociological imagery in ancient cosmology, see Lloyd 1966: 210–32; on its use in Manilius, see further 6.1.

¹²⁷ Fowler 1995: 11 n. 16 and 1997: 14 n. 48 points to the emphatic sense of closure conveyed by the image of universal conflagration.

¹²⁸ A famous Senecan example of a heavenly phenomenon brought about by an event on earth is the reversal of the sun in the *Thyestes*, on which see Volk 2006. Generally on cosmic disruption in Seneca, see Rosenmeyer 1989 and Schmitz 1993; on Lucan, see esp. Lapidre 1979 (and Schwemmler 1916 on Lucan's knowledge of Manilius).

3.5. THE PUZZLE OF THE PLANETS II

Having made their way through the entire *Astronomica*, readers may find themselves puzzled. Manilius has provided so much detailed technical information on so many celestial features of astrological significance, most notably the zodiac-based three circles and the paranatellonta. Nevertheless, anybody wishing to apply the information imparted by the poet and actually cast a horoscope would not get very far and would probably not even have a clear idea of where to start. To quote A. E. Housman, 'I defy anyone to cast a nativity from the information in the poem as it stands' (1903–30: 1, p. lxxii).

The greatest obstacle to our using the *Astronomica* as a how-to manual is that Manilius has told us next to nothing about the planets. Since a horoscope is a snapshot of the heavens seen from a specific place at a specific time, and since the fixed stars, including the zodiac, exhibit no movement other than their highly predictable daily rotation, it is the planets—with their differing orbits, retrogressions, and stations—that account for the complexity of any given birth chart. In a way, zodiac and *dodecatropos* act only as the backdrop for the planets, as is apparent from most actual ancient horoscopes, which are typically records of the position of the planets in the individual signs and places.

It has been suggested that Manilius' work presents a primitive form of astrology (possibly being based on sources from an early stage in the development of the discipline or simply being close in spirit to the simplistic *Laienastrologie* practised by non-professionals), an astrology in which the planets do not play the important role they do in more sophisticated versions of the science.¹²⁹ However, this hypothesis is not borne out by Manilius' text. It is obvious that the astrological features treated by the poet presuppose the existence and central importance of the planets. Take the signs of the zodiac, Manilius' favourite topic: while they may also impart their various characteristics when horoscoping, it is reasonable to assume that they are primarily activated by the planets that move through them. This is especially true for the influence of their manifold interrelationships, including zodiacal aspect; for example, the fact that Aries, Leo, and Sagittarius form a trigon is comparatively meaningless until the planets come into the game and, say, Mars, when entering Aries, is suddenly able to affect also Leo, Sagittarius,

¹²⁹ See Schwarz 1972 and Tester 1987: 30–44 (esp. 44).

the places in which these signs find themselves, and any planets positioned in them.¹³⁰ Manilius does in fact on occasion casually mention the planets and their astrological roles, for example, when he says, at the conclusion of his discussion of the *dodecatropos*, that the planets move through the twelve places and affect their powers (2.959–64, quoted in 3.3 above) or when he acknowledges that the fates imparted by the lots depend on the ‘positive or negative influence of the movement of the seven stars’ (*ut cursu stellae septem laeduntue iuuantque*, 3.89; see also 3.128 and 155–8).¹³¹ The poet is thus perfectly aware of the significance of the planets, and the astrological system he presents is predicated on their playing a major role, just as they do in our other astrological sources from antiquity. The striking fact is that Manilius does not talk about them, neither discussing them in isolation and expounding their general characteristics nor explaining how they interact with the astrological circles to which he dedicates so much space. Heaven, as presented to us in the *Astronomica*, is thus like a gameboard without pieces, a football field without players or a ball.¹³²

Now, it is true that Manilius on a number of occasions announces that he will still discuss the planets at a later point in his work. After the brief mention of the planets’ role when moving through the *dodecatropos*, for example, the poet claims, *haec mihi sub certa stellarum parte canentur* (‘these things will be sung by me in the section allotted to the planets’, 2.965), a promise that in the extant *Astronomica* is not fulfilled.¹³³ As already mentioned in 1.1, Manilius’ failure to treat the planets, coupled with the fact that the poem does not contain a discussion of the settings of the extrazodiacal constellations (contrary to the announcement in 5.28), has led some critics to believe that the *Astronomica* is either unfinished or has come down to us in mutilated form, possibly with one or more books having been lost. The first hypothesis

¹³⁰ See Bouché-Leclercq 1899: 159 n. 2 and 181 + n. 1.

¹³¹ See also 2.644 on the significance of the planets for zodiacal aspect; 2.726–37 and 742–8 on the importance of the planets when placed in the *dodecatemoria* and their subdivisions; 3.581–5 on their role in determining the length of life; and 4.500–1 on their influence in the *partes damnandae*. General references to the role of the planets in astrology occur at 1.52 and 2.449.

¹³² There is evidence that, during their consultations, ancient astrologers actually used boards that depicted the zodiac, on which they illustrated the position of the planets by means of gem stones (see Evans 2004: 4–24). Manilius’ poem is like an incomplete piece of astrological apparatus: he supplies the board, but the planetary markers are missing.

¹³³ Other announcements of a future treatment of the planets are found in 2.750 and 3.156–9 and 587–9.

can be neither proved nor disproved, though it should be pointed out that Book 5 ends with a certain sense of closure and that, even if Manilius never finished the poem as he had originally planned it, he at least finished the books that have come down to us. As for the idea that a portion of the poem, presumably containing the treatment of the planets, has been lost during the process of textual transmission, there are a number of scenarios, which I consider in turn.¹³⁴

Pace Gain 1970, I believe it to be impossible that one or more books on the planets could have been lost between Books 4 and 5. It would have made a certain amount of sense for Manilius to treat the planets before moving on to the paranatellonta (Firmicus Maternus, for one, discusses the paranatellonta only after dwelling on planetary influence at great length), but not only is it unlikely (as pointed out by Costanza 1987: 244) that the mechanical loss of part of the manuscript would have coincided exactly with the beginning and ending of a book, but the wording of the beginning of Book 5 excludes the possibility that the planets have already been treated:

hic alius finisset iter signisque relatis
 quis aduersa meant stellarum numina quinque
 quadriiugis et Phoebus equis et Delia bigis
 non ultra struxisset opus, caeloque rediret
 ac per descensum medios percurreret ignes
 Saturni, Iouis et Martis Solisque, sub illis
 post Venerem et Maia natum te, Luna, uagamtem.
 me properare uiam mundus iubet omnia circum
 sidera uectatum toto decurrere caelo,
 cum semel aetherios ausus conscendere currus
 summum contigerim sua per fastigia culmen. (5.1–11)

Another (poet) would have ended his journey here and—having treated the signs contrary to which move the five stellar deities and Phoebus with his team of four and Delia with her team of two—he would not have constructed his work further, but would return from the sky and, on the way down, move through the fires in the middle: Saturn, Jupiter, Mars, and the Sun and below them, after Venus and the son of Maia, you, wandering Moon. Me the cosmos orders to hasten my journey around all the stars and make my descent via the entire firmament—since, having once dared to mount the heavenly chariot, I have reached the highest point of the sphere.

¹³⁴ See Costanza 1987 for a detailed *historia quaestionis*.

Using one of his favourite images, that of the celestial journey, Manilius here signals that another poet might have ended his work at this point, after the treatment of the signs of the zodiac. The mention of the planets in lines 2–3 serves only to characterize the signs as those constellations that are traversed by the wandering stars (as opposed to the *paranatelonta*, which are not) and by no means implies—as maintained by Gain 1970: 128–9—that Manilius has already discussed the planets. On the contrary, the idea is clearly that the poet’s figurative route so far has been situated solely on the outer sphere of fixed stars, and while another would at this point make a descent back to earth (4–7), Manilius will continue to drive his poetic chariot on the outer firmament, his new task being to treat the *paranetellonta* (8–11). In other words: so far, the poet has been concerned with the constellations only, and, as the proem makes clear, he is going to stick with this topic for a while longer.

If the planets were not treated in a portion of the poem lost after Book 4, could they have been discussed in the great lacuna of Book 5, as suggested prominently by Goold 1983? This, too, seems highly unlikely. First, working on the assumption that the current lines 5.710–45 still belong in the same book,¹³⁵ the lacuna cannot have been very big; as mentioned above in fn. 111, Goold himself proposes that it comprised either 176 or 220 lines. It is hard to see how the crucial topic of the planets could have been adequately treated in so short a space, especially if Manilius in fact fulfilled his promise to talk about such specific issues as the role of the planets in the *dodecatemoria* (cf. 2.750), the *dodecatropos* (cf. 2.959–65), and the lots (cf. 3.156–8). Furthermore, the discussion of stellar magnitude at the end of Book 5 appears to imply that Manilius is at this point still concerned with the fixed stars and has not (yet) moved on to the wanderers. Rather than containing an ill-placed treatment of the planets, then, the lacuna may well have comprised the missing discussion of the extrazodiacal settings, which would logically follow the risings but may well have been discussed in a more summary fashion.¹³⁶

¹³⁵ As Abry 2007a: 660–3 shows, the simile of the *res publica* of the stars (5.734–45) makes a fitting finale for Book 5, whose discussion of the *paranetellonta* is so concerned with human society.

¹³⁶ That the lacuna contained the extrazodiacal settings is suggested by Housman in the introduction to the first volume of his edition (1903–30: 1, p. lxxii); however, by the time he came to Book 5, the scholar had apparently changed his mind and decided that the lost lines would not have afforded enough space to treat the matter (1903–30: 5, p. xlvi). In Book 8 of Firmicus Maternus’ *Mathesis*, the effects of the settings are incorporated into the discussion of the *paranetellonta* and concern the manner of the

As for the idea that a discussion of the planets has been lost after Book 5, this is in theory possible. Against it one could argue that the fifth book is already presented as a kind of afterthought—as Manilius says, another poet would have finished his journey already at this point¹³⁷—and that the simile of the celestial *res publica* makes a good end for the poem as a whole; however, it cannot be excluded with certainty that Manilius wrote an additional book or books of the *Astronomica* or that at some point he was planning to do so.¹³⁸ What remains surprising is that the topic of the planets is given such short shrift in the poem as we have it: not only does Manilius hardly ever mention the wandering stars in his discussion of their natural ‘habitat’, the zodiacal circles of Books

native’s death. Boll 1903: 401–4 argues that, unlike with the paranatellonta, Firmicus did not take this material from Manilius and that Manilius did not treat the settings at all; differently Costanza 1987: 230–40.

¹³⁷ Cf. Romano 1979a: 67–8, who points to similar rhetoric in the works of Ennius and Ovid. Much depends on the interpretation of 5.5–7, the description of the ‘other poet’s’ hypothetical *descensus* via the seven planets. Is Manilius simply saying, in a poetic way, that another poet would have ended his work right here (finishing one’s *iter* and descending to earth, on this reading, is a metaphor for closure, and the fact that the descent leads past the planets is just a ‘realistic’ flourish, since the planets are, of course, positioned between the outer sphere and the earth) or is his point that another poet would right here have stopped his treatment only of the fixed stars and begun discussing the planets (‘descending’ via the seven stars would then be a metaphor for talking about them)? Hübner 1984: 245–7, 1995: 95, and 2006: 140–1 understands the lines as expressive of an actual change of plan on the part of the poet, who was originally going to treat the planets but then decided to replace them with a discussion of the paranatellonta. Abry 2006b: 318–33 speculates on the reasons for such a change of mind, including the possibility that Manilius, overwhelmed by the difficulty and technicality of his subject matter, jettisoned the planets and turned to the poetically more promising topic of the paranatellonta (a move that Abry terms ‘une revanche de l’imagination poétique’, 327).

¹³⁸ Supposed external evidence for the existence of additional books is inconclusive. The fact that Gerbert (see 1.1) refers to what we think might have been the *Astronomica* as ‘viii volumina Boetii de astrologia’ (Letter 8, *PL* 139.203 Migne; cf. Thielscher 1956 and Gain 1970) need not mean that there were eight books extant at Bobbio at the time (Goold 1992: p. cviii and 1998: pp. v–vi, drawing on information from a tenth-century Bobbio catalogue, argues that Gerbert’s eight ‘volumina’ are three books of Boethius’ *Arithmetic* plus the five books of the *Astronomica*; note, however, the reservations of Genest 1996: 259). A note in the Parmensis manuscript (Parma Palat. 283, a fifteenth-century florilegium that contains only lines 1.1–15 of the *Astronomica*) reports of the poem as read in a manuscript in Speyer (no longer extant) that ‘sunt libri sex’, but it is hard to know what to make of this information: Costanza 1987: 252–7 takes it as evidence of the existence of an additional book, while Reeve 1980: 519–22 remains agnostic (both scholars additionally draw attention to the mention of six books of an—anonymous—*Astronomica* in an eleventh/twelfth-century catalogue from Lobbes); cf. also Goold 1998: p. ix. That Manilius wrote (or was planning to write) six books in imitation of Lucretius’ poem (thus Skutsch 1901: 66 n. 2) is an attractive enough hypothesis but in the light of the lack of evidence remains purely speculative.

2–4; not only does he then move on to the comparatively minor issue of the paranatellonta without having explained how the influences of these circles are modified by planetary movement; but he also actively downplays the role of the planets in a number of contexts, presenting an astrology that is idiosyncratic in comparison with other sources. Thus, Manilius does not mention the mainstream doctrine of planetary houses, replacing it with the idea that twelve actual gods govern the signs (2.433–52); his *dodecatemoria* are distributed among the signs, not, as is more commonly the case, among the planets (2.693–737); the same is true for the decans (4.294–386); the poet presents a unique system of twelve lots, corresponding to the twelve signs, as opposed to the more widespread seven-lot doctrine, in which the lots parallel the planets (3.43–159); and, finally, his chronocrators are not planets as elsewhere, but signs of the zodiac (3.510–59). As Wolfgang Hübner sums up the evidence: ‘Was andere Quellen planetarisch determinieren, bestimmt Manilius zodiakal’ (1984: 147).¹³⁹

The poet thus appears to follow a double strategy: on the one hand, he carefully selects (or even invents?) the astrological features he discusses in such a way as to minimize the role of the planets in his system, all the while giving pride of place to the zodiac; on the other hand—since his astrology, as we have seen, is ultimately nevertheless firmly planetary—he makes every effort not to mention the wandering stars even when doing so would appear warranted by the context (as in the discussion of zodiacal influences in Book 4, where we would like to know whether the signs are operative when hosting particular planets, particularly the Sun or the Moon). As a result, the planets are, if not entirely absent, at least seriously underrepresented in the *Astronomica* as we have it. The question remains: why?

In the previous chapter, I suggested that Manilius’ near-silence about the planets in the cosmological first book of his poem reflects his unease at the erratic nature of the ‘wandering stars’, whose unpredictable movements pose a threat to the perfectly ordered *kosmos* the poet wishes to represent. A similar motivation may well lie behind his procedure in the remaining parts of the *Astronomica*, only that in the astrological context of Books 2–5—unlike in the Aratean description of the night sky in Book 1—the omission of the planets is even more glaring and, one might argue, positively inappropriate. However, it is not as though there is no method to what Manilius is doing: in the famous didactic digression

¹³⁹ See also Abry 1983: 53–4 and Goold 1992: p. xcvi.

in Book 2, the poet himself explains the way, and order, in which he introduces his material and thus indirectly throws light on why the planets do not play a larger role in the poem (or at least those parts of the poem extant today). The digression is prompted by the discussion of the *dodecatemoria*, more specifically the ‘*dodecatemoria of dodecatemoria*’ (cf. *dodecatemorii . . . quod dicitur esse | dodecatemorium*, 2.740–1), that is, the subdivision of each *dodecatemorium* (twelfth of a sign) into five further parts of 0.5° each (2.738–49). As mentioned above, Manilius here makes passing reference to the planets—which activate the powers of the *dodecatemoria* in which they are placed (745–8)—but then postpones until later a more detailed discussion of this topic:

undique miscenda est ratio per quam omnia constant.
 uerum haec posterius proprio cuncta ordine reddam;
 nunc satis est docuisse suos ignota per usus,
 ut, cum perceptis steterit fiducia membris,
 sic totum corpus facili ratione notetur
 et bene de summa ueniat post singula carmen. (2.749–54)

The system that accounts for everything must be the result of combining features from all sources. But all these things I shall relate in due order later. Now it is sufficient to teach that whose use is yet unknown, so that—once confidence has been gained after all the limbs have been perceived—the whole body may be marked out with easy reasoning, and after the details, the song about the whole may proceed well.

Manilius acknowledges that proper astrological practice always takes account of a combination of elements: in this case, (subdivisions of subdivisions of) signs and planets, but generally, we may add, also the *dodecatropos*, the lots, the decans, the paranatellonta, and so on. In fact, as the poet himself says, the astrological system (*ratio* in 2.749, as often in Manilius, refers to the science and method of astrology) should represent a ‘mixture’ (cf. *miscenda*, 749) of features ‘from everywhere’ (*undique*, *ibid.*). As Scaliger has already pointed out, Manilius here uses a technical term typically employed by astrological writers to describe combined celestial effects, especially of signs and planets: ‘Usus est proprio artis verbo. Nam stellarum cum signis consideratio a peritis dicitur ἀστέρων κρᾶσις, & μίξις’ (1579, commentary p. 119).¹⁴⁰ This same image of ‘mixing’ occurs later in the *Astronomica*, when the poet

¹⁴⁰ See also Housman 1903–30 *ad* 2.749. That ‘mixture’ (κρᾶσις, σύγκρασις, μίξις, *mixtura*) was indeed used in a technical sense by ancient astrologers is confirmed by numerous authors, including, e.g., Sextus Empiricus, who refers to combined celestial

postpones to the future a detailed treatment of the combined importance of *dodecatropos* and planets in determining the length of life: *mox ueniet mixtura suis cum uiribus omnis* ('soon will come the whole combination with its powers', 3.587)—another unfulfilled promise.¹⁴¹ As Manilius implies, though, the 'mixture' of celestial influences in any given horoscope is a matter of great significance and worthy of detailed investigation, a thought apparent also, for example, in the following passage from Ptolemy:

ἐν ταῖς συγκράσεσι . . . οὐ μόνον τὴν πρὸς ἀλλήλους τῶν πλανωμένων μίξιν δεῖ σκοπεῖν, ἀλλὰ καὶ τὴν πρὸς τοὺς τῆς αὐτῆς φύσεως κεκοινωνηκότας ἤτοι ἀπλανεῖς ἀστέρας ἢ τόπους τοῦ ζωδιακοῦ κατὰ τὰς ἀποδεδειγμένας αὐτῶν πρὸς τοὺς πλανήτας συνοικειώσεις. (Ptol. *Tetr.* 2.9.4)

In the case of complex influences . . . we must consider not only the mixture of the planets with one another, but also their interaction with others that take part in the same nature, whether they be fixed stars or divisions of the zodiac, according to their aforementioned affinities with the planets.

The combination of celestial features is what determines a person's fate and is thus at the heart of all astrological enquiry, as is made clear by Firmicus Maternus, who writes: *sic omnia in genituris hominum locorum partium signorum stellarumque mixtura componit* ('thus in the natiuities of men, the mixture of places, degrees, signs, and planets accounts for everything', 5.7.4).

Manilius knows about the importance of mixture, but, for pedagogical reasons (he avows), he is not (yet) talking about combined celestial effects—and thus, we infer, not (yet) discussing the planets and their interactions with the signs. He illustrates his didactic method by means of two similes: children who learn to read and write first master individual letters before combining them into syllables, words, sentences, and finally poems (2.755–64), and, in the building of a city, all raw materials, such as wood and stone, have to be assembled before construction can begin (2.772–83).¹⁴² Similarly, the poet says, he himself 'must first convey the base material of (his) subject, without explanation' (*materies primum rerum, ratione remota, | tradenda est,*

influences as *ὡς αὐτοὶ λέγουσιν, τὰ [ἀποτελέσματα] κατὰ σύγκρασιν πλειόνων* ('what they [astrologers] themselves call [effects] through the mixture of many elements', *Math.* 5.42); see also the passages from Ptolemy and Firmicus Maternus quoted below in the text.

¹⁴¹ Further references to astrological 'mixture' are found in 1.558, 2.688, 705, 710, 4.319, and 386.

¹⁴² On the two similes, see Landolfi 1990*b* and Schindler 2000: 252–72.

2.785–6), so as not to confuse his students. The application of what they have learned will be revealed later.

This method, as explained by the poet, is perfectly reasonable and is in fact borne out by the poem itself (cf. Reeh 1973: 53–64). As we have seen, Manilius indeed lays out all sorts of astrological features (the signs of the zodiac, the *dodecatropos*, the lots, and so on) one after the other in isolation. What is striking, though, is that the proposed mixture, the combination of elements, never comes. Perhaps this is because the poet did not finish his work or because part of the *Astronomica* has been lost in the process of textual transmission. However, it seems that Manilius dwells disproportionately long on his basic astrological *elementa*, like a teacher whose students never get beyond learning their alphabet. Contrast the approach of Firmicus Maternus, a writer who clearly knew Manilius. Firmicus follows Manilius' declared method of instruction and, after a lengthy general introduction (Book 1), first treats astrological fundamentals such as the signs, the fixed circle, and the aspects (Book 2). However, starting in Book 3, Firmicus turns to the significance of combinations of features, beginning with the meaning of the individual planets when they find themselves at different places in the *dodecatropos*; throughout the rest of his work, he discusses a multitude of 'mixed' scenarios, some of which are extremely complicated. Consider, for example, the following:

si Mars in MC. fuerit inuentus, in feminino scilicet signo, et Saturnus et Venus in XI. sint a horoscopo loco constituti, horoscopus uero cum Ioue et Luna et Mercurio in Veneris signo sit constitutus, aut matres suas aut nouercas aut matrum sorores qui sic has stellas habuerint incesta libidinis cupiditate corruptunt. (6.31.9)

If Mars is found in the midheaven, in a feminine sign, and Saturn and Venus are placed in the eleventh place, and the ascendant together with Jupiter, the Moon, and Mercury is placed in a sign of Venus, then those who have the stars in this way (at their birth) corrupt either their mothers or their stepmothers or their maternal aunts with incestuous lust and desire.

The features of this hypothetical birth chart are ones that Manilius discusses in the abstract but that are never shown in combination in the *Astronomica* as we have it.¹⁴³

¹⁴³ The one element of this nativity that does not fit exactly with Manilius' astrological system is the 'sign of Venus', which refers to the 'house' of Venus in Libra and Taurus. As mentioned already a number of times, Manilius does not use planetary houses; in his parlance, the 'sign of Venus' would presumably be the sign under the tutelage of the *goddess* Venus, which also happens to be Taurus (see 2.439).

Manilius' cosmos is an extremely complex, continuously moving, perfectly designed machine. In describing it, the poet has chosen to treat its constituent parts in elaborate detail, and in isolation, hardly ever putting the individual features together and showing the whole in motion, or at one particular point in the process (as Firmicus does, whose countless scenarios are just individual snapshots of the constantly changing situation in the heavens). Manilius is content to parse nearly indefinitely the astrological features he presents, looking, as it were, through a microscope at the signs of the zodiac and noting the complexity of their subdivision into degrees, (*dodecatemoria* of) *dodecatemoria*, and decans. He is, however, extremely reluctant to allow for the combination of features, to the extent that, one feels, he deliberately elides the role of the planets, which—being by nature in constant, and constantly changing, interaction with the three astrological circles—are the prime agents of astrological *mixtura*. To pick up on the poet's own similes, what we are presented with in the *Astronomica* is thus an astrological alphabet but not a text, a storehouse of building materials but not a structure. Perhaps what we read today is just a first, propaedeutic section, but, given the poem's considerable length, I suspect that Manilius either never got to his discussion of the *miscenda ratio* or, more likely, never intended to get there in the first place. Scaliger has already observed, responding to the claim of the humanist Lilio Gregorio Giraldi that, judging from the missing planets, the *Astronomica* must have been left unfinished:

Poema autem hoc mutilum putat Lilius, quod suffragia stellarum desiderentur, quae multis in locis se scripturum pollicetur. sed falsum est. Nam hoc poema est ἀμιγές, & signorum tantum apotelesmata per se continet, non autem συγκρατικὴν θεωρίαν. (1579, commentary p. 4)¹⁴⁴

But Lilius (Giraldus) considers this poem incomplete since the influences of the planets are missing, which (Manilius) in many places promises that he will write about. But this is wrong. For this poem is 'unmixed' and contains only the astrology of the fixed stars and not the 'combined approach'.

As Scaliger puts it so succinctly, Manilius' poem, and thus his cosmos, is 'unmixed'. We can only speculate as to the reasons why. As mentioned above, it seems to me likely that the poet, in his obsession with order, recoiled from the apparent messiness of astrological *mixtura*, its

¹⁴⁴ On Scaliger and Giraldi, see Costanza 1987: 223–9, who points out that Scaliger himself later came around to the opinion that Manilius had written additional books, now lost (cf. Scaliger 1600, commentary pp. 4, 385, and 472).

near-infinite complexity, and its continuous state of flux. Of course, it would also have been impossible to give an exhaustive account of all possible astrological combinations, which, after all—as Manilius has told us early on—it took the oriental priests an entire Great Year to observe. The poet's failure—or refusal—to discuss actual constellations of heavenly bodies means that, as pointed out by Housman and others, the *Astronomica* is 'useless' as an astrological textbook, since actual horoscopes (states of *mixtura*) are not discussed. This in turn raises questions about the genre and purpose of the work, issues that will concern us in Chapter 5. First, however, we need to consider the historical context of the *Astronomica* and the political significance of astrology in Manilius' time.

Chapter 4

Horoscopes and Emperors

In the previous two chapters, we have surveyed the *Astronomica* and the astronomical and astrological topics treated in Books 1 and 2–5, respectively. Having thus got a sense of the poem's contents, we may well wonder what induced Manilius to undertake a work on such a technical and complicated subject. The personal intentions of the author will never be known, but by examining in greater detail the political and intellectual circumstances of the *Astronomica's* composition, we may be able to throw light on the possible reasons why a Latin writer at this point in history might have felt inspired to compose a lengthy didactic poem that speaks in elevated diction and with great enthusiasm about the irrevocable workings of fate according to the system of astrology. The exploration, from various angles, of the cultural context of the *Astronomica* will be the topic of the remainder of the book, beginning, in this chapter, with a discussion of the political role of astrology in Manilius' Rome.

As will become clear in what follows, in the early first century AD astrology was a 'hot topic' in which educated Romans could be expected to have an intellectual interest; it was also a discipline intimately connected with the wielding and representation of power and with the emperor himself. After a historical survey of the processes through which astrology rose to such a prominent position in Roman life (4.1), I shall examine Manilius' much-discussed references to the emperor, which constitute our only means, however approximate, of dating and thus contextualizing his poem (4.2). The final section of the chapter (4.3) will be dedicated to a discussion of Manilius' political stance and his relationship—as projected by the poem—to the Roman state and its ruler.

4.1. THE RISE OF ASTROLOGY AT ROME

As we have seen in 3.2, astrology was a product of Hellenistic Greece and, like so many other elements of Greek civilization, it was

subsequently passed on to the Romans, who incorporated it into their own culture.¹ As the great bulk of our evidence for the use of astrology dates from the Imperial period, it is difficult exactly to map the spread of the discipline in the course of the Roman Republic. Still, it appears that, as a result of the conquest of the Greek world and the subsequent influx of Greeks into Rome, one of the many Greek practices that caught on among the conquerors was that of making predictions from the stars. One place where this development can be traced is Latin literature and the allusions to astrology found in it. In the late third and early second centuries BC, writers of different genres were already making casual reference to various forms of astral belief: for example, Ennius in his tragedy *Iphigenia* mentions *astrologi* (the first use of this term in Latin) and their prophecies based on the risings of constellations (fr. 185–7 Jocelyn) and Plautus in the *Rudens* has the star Arcturus appear on stage and detail his role as a guardian over mankind (*Rud.* 1–29). Most tellingly, Cato the Elder advises his farm overseer not to consult various diviners, including *Chaldaei* (*Agr.* 1.5.4), which would seem to indicate that this is exactly what people might be expected to do, even in rural areas. By the end of the first century, astrological beliefs seem to be firmly entrenched, as is apparent, for example, from the fact that Tibullus, in talking about the Jewish sabbath, refers to it simply as the ‘sacred day of Saturn’ (*Saturni . . . sacram . . . diem*, 1.3.18), a formulation that suggests that the seven-day week with its astrological system of planetary chronocrators was already commonplace. In Propertius 4.1, an astrologer with a self-advertised impeccable track record of making predictions acts as the poet’s adviser, and, while Horace in *Ode* 1.11 discourages his girlfriend Leuconoe from trying to uncover her future in astrological charts (cf. *nec Babylonios | temptaris numeros*, ‘do not try out Babylonian numbers’, 2–3), he elsewhere discusses his own horoscope and that of his friend Maecenas (*Carm.* 2.17.17–30). More examples could be adduced. What all these passages indicate is that, by the end of the Republic, astrology had become mainstream in Rome.

There is an additional gauge of the increasingly popular appeal of astral divination. In 139 BC, the praetor Cn. Cornelius Hispanus thought fit to order all ‘Chaldaeans’ to leave Rome and Italy within

¹ On the role of astrology in Roman history and culture, see the magisterial treatment of Cramer 1954, as well as Bouché-Leclercq 1899: 546–70, Riess 1933, Boyancé 1975, Liebeschütz 1979: 126–39, Rawson 1985: 306–12, Le Bœuffe 1989: 55–81, Barton 1994a: 32–63 and 1994b: 27–71, Domenicucci 1996, Orth 1996, Bakhouché 2002, von Stuckrad 2003: 90–124, and Schmid 2005.

ten days because 'through their lies by means of fallacious interpretation of the stars they caused in impressionable and hapless minds a confusion that was profitable to themselves' (*leuibus et ineptis ingenii fallaci siderum interpretatione quaestuosam mendaciis suis caliginem inicientes*, Val. Max. 1.3.3, codex Vaticanus Paridis). This edict is the first in a long series of attempts on the part of the Roman state to legislate against astrology; like later examples, it appears to have been prompted less by any concern about the value of the practice itself as by a volatile political and social situation that caused people to seek assurance—and potential encouragement for action—in the stars.² The next such piece of legislation was an ordinance by the aedile Agrippa in 33 BC, who banned astrologers and sorcerers from Rome (Cass. Dio 49.43.5), apparently in an attempt to uphold public order in the restive period before the Battle of Actium.³ The very fact that official attempts were made to curb astrological predictions attests to the widespread interest in and demand for this kind of prophecy. And indeed the fears of the authorities were not unfounded: an early example of the use of astrology for revolutionary purposes was the second Sicilian slave war of 104–102, whose leader Athenio, described by Diodorus Siculus as an expert astrologer (*τῆς ἀστρομαντικῆς πολλὴν ἔχων ἐμπειρίαν*, 36.5.1), motivated his followers with the prediction that he would become king of all Sicily.

If astrology was popular with ordinary Romans, it came to hold a special appeal for the elite (about whose interests and activities we are, of course, much better informed). There are, I believe, two reasons why members of the Roman upper class took an interest in astral divination. The first is intellectual: as we have seen, the system of astrology was inherently scientific, that is, based on generally accepted astronomical and cosmological ideas, and offered a model of the universe that followed universal laws and was characterized by order and beauty. While the science and sophistication that lay behind a horoscope may not always have been apparent from the practice of actual astrologers (especially those catering to the lower classes and selling their predictions, as various writers informs us, from little stalls in the Circus⁴),

² On legal measures against astrology in Roman history, see Cramer 1954: 232–83, MacMullen 1966: 128–42, Desanti 1990, M. T. Fögen 1993, and Beard, North, and Price 1998: 1.231–3.

³ Cf. also the burning of all divinatory texts (except the Sibylline Books) ordered by Augustus in his capacity as pontifex maximus in 12 BC (Suet. *Aug.* 31.1).

⁴ See Cic. *Div.* 1.132 on *de circo astrologos* ('astrologers from the circus'), as well as Hor. *Sat.* 1.6.113–14, Livy 39.16.8, and Juv. 6.582–91, who points out that *plebeium in circo positum est . . . fatum* ('poor people's fates are told in the circus', 588).

educated Romans were in a position to appreciate—as well as, if so inclined, to question—the theoretical assumptions of the Chaldaean art. As a result of the conquest of the east, members of the Roman upper class had become exposed to Greek ideas, including the tenets of the various philosophical schools, which were often transmitted to them by Greek intellectuals who for one reason or another spent time at Rome (see Morford 2002: 14–33). These included philosophers who served as ambassadors for their cities but also gave speeches in which they acquainted their Roman audience with the latest Greek intellectual trends. The most famous of these embassies (156–155 BC) included the Academic Carneades, an outspoken critic of astrology, whose arguments were still used by such later writers as Cicero.⁵ Other influential figures were the Stoics Panaetius and Posidonius: the former lived in Rome in the 140s and 130s and, unlike most other members of his school, had a sceptical view of astrological claims, whereas the latter spent time in the city as a Rhodian ambassador in 87 BC and with his cosmological ideas crucially shaped Roman views of the universe. The philosophical background of Manilius will concern us further in Chapter 6. For the moment, it suffices to state that, in the Middle and Late Republic, educated Romans were exposed not only to the theory and practice of astrology itself but also to the vigorous intellectual debate that surrounded it. This debate finds its expression in the works of Latin authors as well: while Cicero in his *De divinatione* and *De fato* used established Greek arguments to make a case against astrology, his friend the polymath Nigidius Figulus embraced astral divination as well as other forms of prophecy. His works, of which only a few fragments survive, included discussions of haruspicy and omens of thunder and lightning, as well as his famous *Sphaera*, a description of both the Greek constellations and the so-called *sphaera barbarica* (see above 3.4, fn. 99). Nigidius was a practising astrologer himself, who supposedly at the birth of the future emperor Augustus cast the child's horoscope and startled the unsuspecting father with the prediction that his son was going to rule the world.⁶ Other late-Republican Roman scholars with an

⁵ A 'family tree' of the users of Carneades' arguments is found in Cramer 1954: 55 (with reference to F. Boll), though note that, according to Giannantoni 1994, the idea of Carneades as a major critic of astrology does not stand up to scrutiny. Generally on philosophical arguments for and against astrology, see esp. Long 1982, as well as Bouché-Leclercq 1899: 570–609 and Barton 1994a: 52–7.

⁶ See Suet. *Aug.* 94.5 and Cass. Dio 45.1.3–5. Generally on Nigidius, see Cramer 1954: 63–5, Della Casa 1962, Gundel and Gundel 1966: 137–9, and Rawson 1985: 309–12. Fragments of his works are collected by Swoboda 1964 and Liuzzi 1983.

interest in the stars include M. Terentius Varro (whose lost *Disciplinae* contained a book *De astrologia*) and L. Tarutius Firmanus (who at Varro's behest reconstructed the horoscope of the foundation of Rome and those of the birth and conception of Romulus), as well as Julius Caesar, who may have been personally sceptical of astrology (if his refusal to 'beware the Ides of March' is any indication) but who crucially reformed the Roman calendar and is credited with a work *De astris*.⁷

The Julian reform, which aligned the civic calendar with the astronomical year (and, incidentally, made it easier to cast horoscopes, as it ensured the correlation between a particular date and a particular situation in the sky), was an act of enormous political significance that broadcast Caesar's control over time and the heavenly bodies themselves.⁸ The political potential of the stars is the second reason why astrology appealed to upper-class Romans, who increasingly made use of it in the era of the Civil Wars. We have already seen a connection between astrology and political and social unrest in the two expulsion decrees against astrologers of 139 and 33 BC and in the slave revolt of Athenio, and there is probably a general tendency in times of crisis for people to turn to divination as a means of gaining a measure of certainty about their uncertain fates. In addition, though, the situation in first-century BC Rome was such as to favour the adoption of astrology as an explanatory model specifically by the political elite. As Tamsyn Barton writes: 'Astrology emerged as the Roman Republican system began to collapse, a coincidence which, in my view, was no accident. Astrology belonged with the sole ruler, as state diviners belonged with the Republic.'⁹ Divination concerning political and military matters had traditionally been a public process, but, as powerful individuals began to operate more and more often without the sanction of the Senate, they tended to consult in private their personal diviners, often astrologers, about the outcome of their planned actions and the trajectory of their

⁷ On Varro and Tarutius, see Cramer 1954: 65–7 (and see 4.2 below with fnn. 63 and 70 on Tarutius' horoscopes of Romulus and Rome); on Caesar, see Cramer 1954: 74–8 and Domenicucci 1996: 85–99.

⁸ See Wallace-Hadrill 1997: 17–18 and now Feeny 2007: 196–201. This message did not go unnoticed by Caesar's contemporaries: in response to someone's observation that the constellation Lyra had risen, Cicero is said to have remarked sarcastically, 'yes, by decree' (*ναί . . . ἐκ διατάγματος*, Plut. *Caes.* 59.6; for the idea that Cicero was commenting on an actual error in the Julian calendar, see Holleman 1978, but contrast Domenicucci 1996: 88).

⁹ Barton 1994a: 38. Schmid 2005 links the rise of astrology in Rome specifically to Augustus' establishment of monarchic rule.

careers.¹⁰ In 87 BC, the consul Octavius, slain in an attempt to hold Rome against Marius and Cinna, was found with the astrological chart that forecast his safety still on his body (Plut. *Mar.* 42.4–5); by contrast, his contemporary Sulla lived up to the horoscope that prophesied that he would die at the height of his power (Plut. *Sull.* 37.2). The same was not true for Pompey, Crassus, and Julius Caesar, all of whom—as Cicero sarcastically recounts (*Div.* 2.99)—had received assurances that they would pass away in old age, at home, and in a state of glory. What these anecdotes show is that all these major political players had consulted astrologers.

To people who believe in astrology, a horoscope can be a guide to action: their birth chart will convince them that they are destined to accomplish certain things, and a katarthic prediction will additionally assure them of the outcome of specific events. Thus, we may surmise, Octavius may well have refused to give up the defence of Rome in 87 BC because he trusted his fate as revealed to him by his astrologer. There is, however, an additional use to which a horoscope can be put, as is apparent from the following story about Augustus, which concerns an incident presumed to have taken place in early 44 BC, before his rise to power:

in secessu Apolloniae Theogenis mathematici pergulam comite Agrippa ascenderat; cum Agrippae, qui prior consulebat, magna et paene incredibilia praedicerentur, reticere ipse genituram suam nec uelle edere perseuerabat, metu ac pudore ne minor inueniretur. qua tamen post multas adhortationes uix et cunctanter edita, exiliuit Theogenes adorauitque eum. tantam mox fiduciam fati Augustus habuit, ut thema suum uulgauerit nummumque argenteum nota sideris Capricorni, quo natus est, percusserit. (Suet. *Aug.* 94.12)

During his stay in Apollonia, he [Augustus] climbed up to the observatory of the astrologer Theogenes in the company of Agrippa. When a great and nearly unbelievable future was predicted to Agrippa, who asked first, Augustus persisted in not telling the hour of his birth and not wishing to disclose it, out of fear and shame that it might be found to be less significant. When, after much encouragement, he had just about hesitantly disclosed it, Theogenes jumped up and threw himself at his feet. As a result, Augustus had such trust in his fate that he published his horoscope and struck a silver coin with the sign of the constellation Capricorn, under which he was born.

As mentioned before, Nigidius Figulus, too, supposedly cast Augustus' horoscope and likewise predicted a glorious career for the native. The

¹⁰ On public v. private divination in the Late Republic, see North 1990: 65–71, esp. 69–70, and Potter 1994: 147–58.

survival of these anecdotes means that such stories were circulating at Rome, no doubt thanks to Augustus himself and/or his followers¹¹—as Suetonius says, the emperor even advertised his horoscope and minted coins with his sign, Capricorn. The publication of the horoscope is confirmed by Cassius Dio 56.25.5, and, as for Capricorn, the ‘goat-fish’ appears on numerous Augustan coins and in other artwork of the period, including the famous Gemma Augustea (see Figure 12).¹² The exact astrological details of Augustus’ horoscope will concern us in the next section, but it is already clear that the emperor used his birth chart as a tool to legitimize his own position: if his stars predicted that he would rule the universe, he was simply fulfilling an unalterable fate, and any attempt at opposition would be futile from the start.¹³

The belief that the ruler was chosen by the heavens, whose alignment at his birth ensured his power, became a common ideological trope in the Roman Empire. It was closely connected to the concept of the apotheosis of outstanding individuals, an idea that had slowly made its way into the Roman cultural imagination in the course of the first century BC and was often linked to a belief in astral immortality and the concept of catasterism. Thus, for example, Cicero in his *Somnium Scipionis* developed the idea (often associated with Pythagoreanism and picked up by Manilius in 1.758–804) that the souls of dead statesmen dwell in the Milky Way and throughout his works stressed that Romulus, among others, had been received among the gods as a reward for his achievements on earth.¹⁴ When Julius Caesar was assassinated in 44 BC, the Roman populace—already accustomed to the idea of the dictator’s divinity, who, after all, claimed descent from the goddess Venus—was ready to believe that he had ascended to heaven

¹¹ Suetonius calls the optimistic prophecy of Nigidius *nota ac uulgata res* (‘a generally known fact’, *Aug.* 94.5). Generally on prophecies concerning the Roman emperors, see Vigourt 2001, who points out that, while positive predictions may have been made public by friends of the prince in question, they may also have been put in circulation by those who posthumously wished to rehabilitate the prophet, as perhaps in the case of Nigidius Figulus, who was a staunch anti-Caesarian and died in exile in 45 BC.

¹² For representations of Capricorn in Augustan art and coinage, see Kraft 1967 and Barton 1994*b*: 40–5 and 1995: 48–51. Mark Antony may have attempted to use his own sign Leo in similar ways; see Abry 1993*a*.

¹³ As Kraft 1967 points out, the advertisement of the auspicious horoscope and birth sign constitutes the equivalent of the claim that Augustus was—in a catchphrase popular at the time—*ad salutem rei publicae natus* (‘born for the salvation of the state’). Generally on Augustus’ use of astrology, see now the monograph of Schmid 2005.

¹⁴ The ascent of Romulus is mentioned in, e.g., *Rep.* 1.25, 2.17–18, 6.24, *Leg.* 1.3, and *Tusc.* 1.28; for a discussion of Cicero’s role in promoting the idea of apotheosis in Rome, see Cole 2006.



Figure 12. The Gemma Augustea (onyx cameo, c.10 AD; Kunsthistorisches Museum, Vienna). The birth signs of Augustus (Capricorn) and Tiberius (Scorpio) have been emphasized.

and become a star, identifying him with a comet that happened to appear that very summer.¹⁵ This first catasterism not of a mythological figure but of a Roman politician was politically exploited by Caesar's heir Augustus, who had his adoptive father declared a 'god' (*diuus*) and who sponsored the iconography of the 'Julian star' (*sidus Iulium*) in artwork and on coins.¹⁶ Obviously, if Caesar had become immortal and found a home among the stars, the same was ultimately to be expected

¹⁵ On Caesar's comet, see the extended discussion of Ramsey and Licht 1997, as well as Domenicucci 1996: 29–85, Gurval 1997, and Ramsey 2006: 106–24. Weinstock 1971 examines the propagandistic divinization of Caesar, both in his lifetime and after his death.

¹⁶ As comets were typically considered ill-omened (cf. Manilius' discussion in 1.874–921), the catasterized Julius Caesar was often referred to simply as a 'star'; it is also possible that at least some contemporary observers in fact misidentified the celestial object of 44 BC as a nova (see Ramsey and Licht 1997: 135–47; differently Gurval 1997,

of Augustus, scion of the same Julian house and endowed, as we have seen, with an especially promising horoscope. And indeed, while the emperor declined being worshipped as a god during his lifetime, his future divinity was beyond doubt, and the Augustan poets, for instance, openly anticipated his rise to heaven. As early as the late 30s BC, Vergil in the proem to the first *Georgic* (1.24–39) speculated as to which realm of the world (sky, earth, or sea) Octavian was to rule after his death and described in detail a scenario in which he would turn into a new constellation (*nouum... sidus*, 32) between Virgo and Scorpio (we shall return to this passage in 4.2). Other writers would echo the idea of the emperor's catasterism, including, as we shall see, Manilius.¹⁷ Once Augustus had actually died, the Senate duly decreed his consecration, and, at the emperor's funeral, an eagle released from the burning pyre was meant to symbolize his soul as it ascended to the stars (Cass. Dio 56.42.3).¹⁸

In the Augustan period, then, astrological and related beliefs were widespread, both attracting the masses and appealing to the elite. While in the preceding period of the Civil Wars individual politicians had already attempted to make use of horoscopes for their own purposes, it was Augustus who turned astrology into an effective tool of propaganda.¹⁹ By advertising his horoscope and relentlessly displaying such 'logos' as Capricorn and the *sidus Iulium*, the emperor sent the clear message that his rule was sanctioned by the stars and ordained by fate.²⁰ Picking up

who argues that 'star' and 'comet' represent different stages in the development of this particular 'Augustan myth'). On artistic representations of the *sidus Iulium*, see Weinstock 1971: 370–84, Gurval 1997: 45–62, and Ramsey 2006: 114–17 (the latter two specifically on coinage).

¹⁷ On poetic references to Augustus' anticipated apotheosis/catasterism, see Domenicucci 1996: 103–11.

¹⁸ On the consecration of Augustus and other emperors, see Price 1987 and Gradel 2002: 261–371. Note that the use of the eagle (customary in later imperial funerals) is already controversial for Augustus (Gradel 2002: 291–5 argues in favour of it, against Price 1987: 95).

¹⁹ I cannot enter here into the controversial question of what constitutes Augustan 'propaganda' (a loaded term, as I am well aware) and who controlled it. In using this expression, I am referring to a pervasive and diverse discourse carried on in many media and by many individuals with the purpose of projecting a positive view of the emperor by means of the creative use of certain central myths and images. I am assuming that, while Augustus himself or people close to him initiated or encouraged many of the individual manifestations of this discourse, many others arose from the independent initiative of politicians, writers, and artists, among others.

²⁰ I owe the fitting designation of Capricorn as an Augustan logo to Barton 1995: 47–8; cf. also Schmid 2005: 49.

on a popular and attractive mode of thought, he inscribed himself into the extant system of astral determinism and in turn inspired others—artists and poets, for example—to come up with further chains of ideas and ways of representation that developed the same concepts in original ways. The only problem with Augustus' use of astrology was that others could play the same game. If the emperor's horoscope proclaimed world rule, so perhaps did that of another. Also, a skilled astrologer might be able to pin down the time of the emperor's death—or a promising moment for a coup. Such considerations were not lost on Augustus, and in AD 11 (a difficult period in the rule of the ageing emperor), he issued an edict that restricted the consultation of diviners, including astrologers.²¹ Henceforth, it was a crime to consult a prophet in private or to ask questions about anybody's death.²²

Augustus' edict, which remained in force until the fourth century, is indicative of what became the typical pattern of the Roman emperors' relationship to astrology. Most rulers consulted astrologers themselves while trying to curb the use of astrology by others. Augustus' successor Tiberius is a prime example. An aficionado of astrology (*addictus mathematicae*, Suet. *Tib.* 69.1) and able to cast a horoscope himself, he surrounded himself with astrologers, among them his close friend and adviser Thrasyllus, an eminent Greek scholar and one of history's great astrologers.²³ While Tiberius' own actions were thus greatly influenced by horoscopes, he also used the provisions of Augustus' edict (apparently never applied in prosecution during his predecessor's lifetime) to bolster the evidence in a number of *maiestas* trials in which the defendants were accused of consulting astrologers in the course of their nefarious plottings against the emperor's life. The first such case

²¹ For the edict, see Cass. Dio 56.25.5; a detailed discussion is found in Cramer 1954: 248–51.

²² In talking about the edict, Dio mentions that Augustus published his own horoscope, presumably to demonstrate his confidence in his own fate and to pre-empt any outside attempts at determining his future. It is unclear how this information relates to the reference to the publication of Augustus' horoscope in Suet. *Aug.* 94.12 (see above in the text), which appears to place it early in the emperor's career. Did Augustus advertise his birth chart when he was still a triumvir or only in AD 11? In my opinion, important aspects of the emperor's horoscope must have been known early on (for one thing, references to Capricorn would otherwise have been lost on their intended audience); it is possible, though, that on the occasion of the edict of AD 11, Augustus reissued the horoscope to remind the public of his outstanding destiny.

²³ On Tiberius and Thrasyllus, see Cramer 1954: 90–108; Schmid 2005: 355–7 points out that the astrologer was close to Augustus as well. For a discussion of Thrasyllus as a philosopher and editor of Plato, see Tarrant 1993.

was that of Libo Drusus in AD 16, who had supposedly obtained astrological predictions in connection with his plot against Tiberius. This particular incident prompted two *senatus consulta*, which temporarily expelled astrologers from Rome and threatened drastic penalties against those who remained.

Legislation against astrologers in general and prosecution of particular individuals recur throughout the Imperial period and attest to nothing so much as the continuing popular appeal and political potential of astrology: as efforts to curb it persisted, astrology did as well, and Juvenal could declare mockingly that ‘an astrologer who has never been convicted won’t be any good’ (*nemo mathematicus genium indemnatus habebit*, 6.562).²⁴ As the Republic had changed to the Empire through the important catalyst of the Augustan period, astrology had achieved a central and (until the arrival of Christianity) near-unassailable position in Roman thought and society. While not everybody may have consulted astrologers, the belief that our lives are predetermined at birth was firmly entrenched, as we can see from the following observation of Tacitus, who in the process of reflecting (apropos of an anecdote about Tiberius and Thrasyllus) on the problem of determinism versus free will comes to the conclusion that ‘the majority of people at any rate won’t desist from believing that at the first moment of someone’s birth his entire life is predestined’ (*ceterum plurimis mortalium non eximitur quin primo cuiusque ortu uentura destinentur*, *Ann.* 6.22). While this statement concerns a somewhat later period, I hope to have shown that, when Manilius was writing, his Roman audience was already positively inclined toward, and even enthusiastic about, astrological ideas. Which brings us back to the big question. When exactly did Manilius write?

4.2. MANILIUS’ EMPEROR(S) AND THE DATE OF THE *ASTRONOMICA*

As mentioned in 1.1, we have no external information on the life of Manilius, and any attempt to date his work must therefore be based on evidence from the *Astronomica* itself. It so happens that most of the

²⁴ Cf. also Tacitus’ laconic observation that astrologers, though always banished from Roman society, will always remain (*genus hominum . . . quod in ciuitate nostra et uetabitur semper et retinebitur*, *Hist.* 1.22).

passages that have been adduced in an effort to situate the poem historically are concerned with the (or: an) emperor and typically touch on his horoscope or his actual or anticipated afterlife among the stars. By examining these parts of the text, we shall thus gain insight into not only the chronology of Manilius' work, but also his representation of power and the close nexus between imperial rule and the heavens. Unfortunately, though, the poem's references to the emperor—who is often not named but designated simply as *Caesar*—are notoriously opaque, and Manilian scholars have varied considerably in their assessments as to under which ruler the *Astronomica* was composed.²⁵

The only clear reference to a historical event useful for dating purposes is found in 1.898–903, where Manilius mentions the disastrous Roman defeat in the Battle at Teutoburg Forest in AD 9. Taking their start from this unambiguous *terminus post quem*, scholars have pursued three different theories about the poem's date: Manilius wrote the entire *Astronomica* in the reign of Augustus; he composed it completely under Tiberius; or he began under Augustus but finished only once Tiberius had ascended to the throne in AD 14. The first, Augustan, hypothesis was the *communis opinio* from Manilius' rediscovery in the Renaissance onward:²⁶ humanist manuscripts and early editions were often given titles such as *Marci Manlii poetae clarissimi astronomicon libri V ad Caesarem Augustum*,²⁷ and critics like Scaliger and Bentley were in no doubt about the Augustan date of the work.²⁸ It was in 1815 that this certainty was shattered by none other than Karl Lachmann, who in a brief disputation *De aetate Manilii* argued that Manilius' references to the emperor were much better understood as being about Tiberius and that the entire poem was written after AD 14.²⁹ Lachmann's thesis led to a fierce controversy that continued throughout the nineteenth and twentieth centuries, with Freier 1880, Ramorino 1898, Bickel 1910, Pauer 1951, and Gebhardt 1961 being staunch defenders of the Tiberian cause and Bechert 1900, Kraemer 1890 and 1904, Lanson 1887, Prinz 1912, Griset 1931, Flores 1960–1, Liuzzi 1979, and Brind'Amour 1983a: 62–71 upholding the all-Augustan date. The

²⁵ For a brief *historia quaestionis*, see Maranini 1994: 31–5.

²⁶ For the seventeenth-century minority view of a Late Antique date, see 1.1, fn. 2.

²⁷ This is the heading of the late fifteenth-century Florentinus Laurentianus plut. 30.15; this and similar titles are collected by Ramorino 1898: 323–5.

²⁸ See Scaliger 1600, commentary pp. 2 and 5, and Bentley 1739: pp. xii–xiv.

²⁹ See the reprint in Lachmann 1876: 42–4. For precursors of Lachmann's view already in the seventeenth century, see Maranini 1994: 32 n. 24.

idea that the first part of the poem (Books 1 and 2) was written under Augustus while the second part (at least Books 4 and 5, with Book 3 supposedly undatable) is Tiberian was championed most prominently by Housman 1903–30: 1, pp. lxi–lxxii and taken over by his followers Goold 1992 and 1998 and Fels 1990.³⁰ While it is impossible to generalize, it is probably fair to say that at this point most Italian scholars—apparently under the influence of the important article of Flores 1960–1—accept an Augustan date for the entire poem (this includes the commentaries of Liuzzi 1991–7 and Feraboli, Flores, and Scarcia 1996–2001), while Anglophone critics largely follows the hybrid hypothesis of Housman, which is also found in such reference works as the *OCD* (= Wilson 1996), the *Neuer Pauly* (= Hübner 1999), Conte 1994: 429, and von Albrecht 1994: 769. The Tiberian view is defended in one of the more recent English articles on Manilius, Neuburg 1993. A consensus has thus not been reached, and it seems worthwhile to embark once more on a critical examination of the evidence. In what follows, I shall go through all the relevant passages—labelled (*a*) through (*i*)—in the order in which they appear in the *Astronomica*. Obviously, this need not be the order in which Manilius wrote them, but, since at least the Augustan–Tiberian hypothesis depends on the idea that the books were written in sequence, it seems advisable to proceed in this manner.

The first mention of the emperor occurs early in the *Astronomica*'s proem, after Manilius has announced his astrological subject matter:

(*a*) hunc mihi tu, Caesar, patriae princepsque paterque,
 qui regis augustis parentem legibus orbem
 concessumque patri mundum deus ipse mereris,
 das animum uiresque facis ad tanta canenda. (1.7–10)

You, Caesar, father and leader of the fatherland, you who rule the earth that obeys your august laws and are earning the sky, granted to your father, a god yourself—you give me this inspiration and the strength to sing of such great things.

The emperor is invoked as an inspiring figure, whose support of the poet enables his work. We may see these four lines as a dedication of the poem to *Caesar*, though the brevity and vagueness of the passage prevent us from inferring particulars about the relationship of poet and emperor, such as whether the latter commissioned the *Astronomica* or

³⁰ See also van Wageningen 1915: pp. ix–x, 1920, and 1928: 1116–17. That Books 1–4 are Augustan and Book 5 Tiberian was maintained by Jacob 1846: pp. xv–xvii.

acted as Manilius' patron.³¹ Who is the emperor? There is no clear indication, but the diction points to Augustus, who had been awarded the title of *princeps* in 27 BC and that of *pater patriae* in 2 BC (cf. *patriae princepsque paterque*, 7). The reference to the emperor's 'august' laws (1.8) would then constitute a nice pun, and the father who has been granted the sky that the godlike addressee is in the process of earning himself would, of course, be the deified Julius Caesar. While it is possible instead to take *Caesar* as Tiberius and the *pater* as the dead and deified Augustus, the language of the passage speaks against this.³² No clear conclusion is possible, but the lines are most naturally understood as referring to Augustus.³³

We have already briefly encountered the next passage that mentions an emperor (see 2.3 above). In his discussion of the southern hemisphere, Manilius maintains that the antipodes gaze on no fewer stars than the peoples of the north (1.382–3)—with one exception:

- (b) *cetera non cedunt: uno uincuntur in astro,
Augusto, sidus nostro qui contigit orbi,
Caesar nunc terris post caelo maximus auctor.* (1.384–6).

In other ways, they are not inferior: they are defeated as regards one heavenly body only, Augustus, who has been allotted as a star to our sphere, Caesar, supreme guarantor of growth now for the lands, later for the sky.

There are a few textual uncertainties in these lines, but the basic point is clear: Augustus is a *sidus* that shines only on the northern hemisphere.³⁴

³¹ As I discuss in Volk 2002: 201–2, the invocation of a member of the imperial family as a source of inspiration was by Manilius' time on its way to becoming a poetic convention and does not necessarily imply a personal relationship.

³² A major bone of contention in the controversy over the date is whether Manilius could have used the title *pater patriae* (which reappears in 1.925) of Tiberius. As historians tell us (see Tac. *Ann.* 1.72 and 2.87; Suet. *Tib.* 26.2 and 67.2; Cass. Dio 57.8.1) and adherents of the Augustan faction are quick to point out (see esp. Kraemer 1936), Tiberius adamantly and repeatedly rejected the designation *pater patriae*. Members of the Tiberian camp counter that Tiberius kept refusing the title because sedulous people kept offering it to him—among them, possibly, an adulatory Manilius (thus already Lachmann 1876: 44). In my opinion, the Manilian use of *pater patriae* in the two passages where it occurs strongly points to Augustus but is not itself enough to clinch the matter.

³³ We may also wonder whether Manilius, if he were addressing Tiberius, would not be likely to mention the emperor's deified grandfather in addition to his father. This is the approach of Valerius Maximus, who in dedicating his work to Tiberius maintains that the emperor's divine nature 'is considered equal to that of the fatherly and grandfatherly star' (*tua* [sc. *diuinitas*] . . . *paterno auitoque sideri par uidetur*, *Praef.* 1), referring to the apotheosis of both Caesar and Augustus.

³⁴ Scholars differ on whether to read ^{A1}*augusto* (385) as a proper name or an adjective; whether to adopt Bentley's *qui* instead of the manuscripts' *quod* (ibid.); and whether

As line 386 shows, Manilius is not referring here to the actual catasterism of the emperor, whose ascent to the sky is only anticipated (cf. *nunc terris post caelo*), but is describing him as a 'star' on earth, in a metaphor still familiar (if felt much less vividly) today.³⁵ Manilius' movement from the actual stars of the southern hemisphere to the figurative star of Augustus and back to the real heavens qua future abode of the emperor is somewhat confusing but makes for a witty and whimsical compliment to the ruler. The passage points to Augustus' being alive.³⁶

Unfortunately, the next relevant section is riddled with difficulties. At the end of his list of famous Romans who after their death dwell in the Milky Way, Manilius turns to the Julian family:

- (c) Venerisque ab origine proles
 Iulia descendit caelo caelumque repleuit
 quod regit Augustus socio per signa Tonante
 cernit et in coetu diuum magnumque Quirinum
 altius aetherii quam candet circulus orbis.
 illa deis sedes: haec illis, proxima diuum
 qui uirtute sua similes fastigia tangunt. (1.798–804)

As the syntax and meaning of the passage are unclear at many points, I do not yet venture a translation but shall instead discuss the problems in turn. First, who is 'the Julian offspring from the race of Venus' (*Venerisque ab origine proles* | *Iulia*, 798–9), and how does this phrase fit into the larger sentence? A number of editors place a period after *Iulia*

auctor (386) needs an objective genitive, as claimed by Housman 1903–30 *ad loc.*, who tentatively suggests replacing *Caesar* with *pacis* or *legum* (the latter is accepted by Goold 1992 and 1998). The first two are relatively minor points (though see fn. 36 below on *Augusto*); as for the last, see the arguments of Flores 1960–1: 22–3 + n. 60 and Montanari Caldini 1981: 86–94, who show that *auctor*, used absolutely, is literally the 'increaser' and that Manilius is creating a wordplay with this term and the title *Augustus* in the previous line.

³⁵ On the use of this image in antiquity, esp. for Augustus, see Kraemer 1890: 33–54. For the metaphorical representation of the living Augustus as a star, cf. *CIG* 4923.3–4 and Hor. *Carm.* 1.12.46–8 with Nisbet and Hubbard 1970 *ad loc.*

³⁶ Proponents of the Tiberian hypothesis attempt to get around the challenge posed by this passage in one of the following ways: by interpreting *augusto* (385) as an adjective with *astro* and taking the 'august star' to be Tiberius (see, e.g., Bickel 1910: 242; but even if it is in the first place an adjective, the very choice of word makes it likely that a reference to Augustus is intended); by understanding *nunc* in 386 as a 'Manilian version of *modo*' and maintaining that Augustus is already dead and a *maximus auctor* 'in heaven as lately on earth' (thus Neuburg 1993: 247; this interpretation is in my opinion grammatically impossible); or by assuming that the *Caesar* of 386 is not the same as the *sidus* of 385 (on this interpretation the literally catasterized Augustus), but rather Tiberius (see Freier 1880: 17–19; but the change of subject would be unpleasantly abrupt, as pointed out by Prinz 1912: 683).

and take the 'Julian offspring'—presumably Julius Caesar—as the last member of the long list of denizens of the Milky Way.³⁷ Alternatively, *Venerisque ab origine proles | Iulia* already belongs to the new sentence and refers to Augustus,³⁸ who, according to the poet, 'has descended from heaven and reoccupied heaven, which he rules, with the Thunderer his companion among the signs, and he sees...' (*descendit caelo caelumque repleuit | quod regit Augustus socio per signa Tonante | cernit et...*, 799–801). The next problem concerns what Augustus sees: *in coetu diuum magnumque Quirinum* (801) would mean '(he sees) in the gathering the divine and great Quirinus', which sounds extremely pedestrian. It would be more elegant if *in coetu diuum* meant 'in the gathering of the gods', but then *magnumque* would not be linked to anything. For this reason, Housman 1903–30 *ad loc.* posited a lacuna after 801, which he supposed contained a reference to Julius Caesar, whom one would also expect to be present among the *diui*. As the following three lines inform us, these 'gods' (cf. *deis*, 803) do not dwell in the same location as those 'who, similar in their excellence, reach the heights closest to the gods' (*proxima diuum | qui uirtute sua similes fastigia tangunt*, 803–4), but instead live 'higher up than the shining circle of ethereal heaven' (*altius aetherii quam candet circulus orbis*, 802). There are, then, two levels of astral immortality: regular heroes go to the Milky Way; deified mortals, such as Augustus and Quirinus, occupy a more elevated position still.³⁹

The greatest problem with the passage concerns the unanimously transmitted present tenses *regit* (800) and *cernit* (801)—as well as potentially the perfect *repleuit* (799)—which imply that Augustus is dwelling in the heavens now, that is to say, that he is already dead.⁴⁰ This is surprising in the light of the fact that, as we have seen, the two

³⁷ This is the interpretation of Housman 1903–30, who picks up a suggestion by Merkel and is followed by Fels 1990 and Goold 1992 and 1998.

³⁸ See Breiter 1907–8, Liuzzi 1991–7, and Feraboli, Flores, and Scarcia 1996–2001.

³⁹ To judge from *socio per signa Tonante* (800), Manilius may be envisaging the deified/catasterized Augustus as a planet, who moves with the god/planet Jupiter among the signs (see Bickel 1910: 240–2 and Pauer 1951: 120); Bayet 1939: 167–70 and Montanari Caldini 1981: 82–5 instead think of castasterism as (part of) a sign of the zodiac, in imitation of the proem of Vergil's first *Georgic*, discussed below.

⁴⁰ Some critics have understood the present tenses in the passage to imply that Augustus, even while still alive, already enjoys divine status and shares in the rule of the world with Jupiter (e.g., van Wageningen 1921 *ad* 1.800: 'praesens tempus ita explicandum est, ut Augustus iam in terra mundi imperium cum Iove participet'; see also Kraemer 1890: 35–7 and Garrod 1911: pp. lxi–lxii and cf. Ellis 1891: 21–2). This interpretation seems to me impossible; cf. the comments of Housman 1903–30 *ad* 1.800.

preceding references to the emperor in Book 1 point to a living Augustus. As will become clear in what follows, this is true also for the last relevant passage from the same book. Obviously, proponents of a Tiberian date use the lines in question as prime evidence for their cause, while members of the Augustan camp have to resort to altering the text and assuming that what Manilius really wrote are *reget*, *cernet*, and perhaps also *replebit*.⁴¹

Changing the tenses of these verbs for the sole purpose of making the passage agree with the preconceived notion that at its composition Augustus must still have been alive is clearly a counsel of despair. There are, however, other reasons to reconsider at least *regit* and *cernit*. As for *repleuit*, I suggest putting a period (or perhaps a dash) at the end of line 799 and taking 'the Julian offspring from the race of Venus has descended from heaven and reoccupied heaven' as one self-contained sentence about Julius Caesar (whose description here fits in very well with Manilius's later designation of him as *caelo genitus caeloque receptus*, 'born from heaven and received in heaven', 4.57). The pronoun *quod* (800) in my opinion either continues the same sentence with a relative clause or, perhaps preferably, introduces a new sentence as a connecting relative. In either case, Augustus is now the subject. As for the verbs, I believe that the sentence indeed makes better sense if they are changed to the future tense. While *regit* is unproblematic in itself (unless one wishes for Augustus to be alive, of course), *cernit* is decidedly odd. The verb *cernere*, which originally means 'sift, separate' (see *OLD* s.v.), refers to the action of perceiving or distinguishing (in Manilius, it is often used for making out a star or constellation; see Wacht 1990 s.v.), an action that typically takes place within a moment or a very short period of time. There is no durative aspect to the verb, and its use in the present tense and in parallel to *regit* therefore makes little sense: it can easily be said that 'Augustus is reigning', but not that 'Augustus is perceiving Quirinus in the gathering' (*cernere*, after all, does not mean 'look at'⁴²). The point, at any rate, can hardly be that Augustus is currently staring at Quirinus; rather, Manilius must be saying that, at the moment of his arrival in the

⁴¹ The emendations *reget* and *cernet* were first suggested by Woltjer 1881: 22 and *replebit* by Housman 1903–30. They are variously adopted by various editors, with all three found in Housman 1903–30, Goold 1992 and 1998, and Feraboli, Flores, and Scarcia 1996–2001.

⁴² Contrast, e.g., Catull. 51.3–4, which presents an excellent example of the Latin vocabulary of continuous looking at something: the 'god-like' man opposite Catullus' beloved *identidem te spectat* ('gazes at you again and again'); the use of *cernere* in such a context would be impossible.

heavens, the deified emperor will see and recognize his divine ancestor among the gods. If *cernit* thus basically clamours to be changed to *cernet*, *regit* must follow suit and be turned into a future as well, a change that brings the passage into line with our conclusions about the earlier parts of Book 1, which appear to indicate that, at their composition, Augustus was still alive. As for why the two verbs appear as presents in our manuscripts, it is easiest to assume that someone changed the text under the mistaken assumption that *descendit* and *repleuit* (799) already refer to Augustus as well and indicate his completed apotheosis. I thus propose to understand lines 1.798–801 as follows:

Venerisque ab origine proles
Iulia descendit caelo caelumque repleuit—
quod reget Augustus socio per signa Tonante
cernet et in coetu diuum magnumque Quirinum . . .

And the Julian offspring from the race of Venus [i.e., Julius Caesar] has descended from heaven and reoccupied heaven—heaven, which Augustus will rule, with the Thunderer his companion among the signs, and he will see [i.e., recognize and meet] the divine and great Quirinus in the gathering . . .⁴³

Given the many problems with the passage, its status as evidence is compromised, but I hope to have shown that it is not as much of a stumbling block for the all-Augustan hypothesis as appears at first sight and that it does in fact make the most sense if it is reconstructed in such a way as to suggest that Augustus was alive when Manilius wrote it.

The final mention of the emperor in *Astronomica* 1 occurs at the very end of the book. As mentioned in 2.3, Manilius' discussion of the baleful events forecast by comets (1.874–921) enables him to enter into an intertextual dialogue with his two great predecessors in the field of Latin didactic poetry, Lucretius and Vergil. In addition to announcing such disasters as plagues (including the Lucretian plague in Athens, 884–91) and wars (including the disaster at Teutoburg Forest, so important for establishing Manilius' date, 898–903), comets warn of civil strife, a fact that allows the poet to review the battles of Philippi and Actium and the war against Sextus Pompeius (907–21). This description of the Civil Wars accompanied by portents clearly harks back to the famous finale of the first *Georgic* (written while such conflict was still going on) and, like its Vergilian intertext, ends with a prayer. While Vergil entreats the gods not to prevent Octavian from

⁴³ I incline towards assuming a lacuna after 801 (cf. the discussion above in the text).

coming to the help of the ‘overturned age’ (*everso . . . saeclo*, Verg. *G.* 1.500), as the Romans have already atoned ‘enough’ (*satis*, 501) for the sins of their forebears (498–502), Manilius, too, hopes that ‘the fates may have had enough’ (*sed satis hoc fatis fuerit*, 1.922), that war may abate (922), and that Discordia may be chained and locked up for ever (923–4). Whenever exactly Manilius wrote, it is clear that the Civil Wars were by this time a thing of the past. Nevertheless, the poet—in imitating Vergil—in this passage takes on the point of view, as it were, of a contemporary witness to the conflict who in a state of war prays for peace (though, as mentioned already in 2.3, Manilius’ optimism—clearly benefiting from hindsight—contrasts sharply with the pessimism of Vergil, who ends *Georgics* 1 with the harrowing image of War’s chariot out of control). Given this artificial Civil Wars atmosphere, the ensuing mention of the ruler must, in my opinion, be taken to refer to Augustus:

(d) *sit pater inuictus patriae, sit Roma sub illo,
cumque deum caelo dederit non quaerat in orbe.* (1.925–6)

May the father of the fatherland may be unconquered, may Rome be thus under his rule, and having given a god to the sky, may she not miss him on earth.

Viewed in isolation, the two lines could theoretically be understood as being about Tiberius (even though the title *pater patriae*, as discussed above and in fn. 32, fits Augustus better). In the context of the allusion to Vergil and the anachronistic prayer for the end of the Civil Wars, however, the envisaged ‘father of the fatherland’ must be Augustus. Even so, the exact meaning of the last line of the book—as pithy as it is obscure—remains elusive. Apparently, the poet is exhorting personified Rome after the deification and ascent to heaven of Julius Caesar (cf. *cumque deum caelo dederit*) not to search for and mourn her lost god on earth since (we have to infer) she now has a new (divine) guardian in the person of Augustus.⁴⁴ The sentiment is less clearly expressed than one would wish,⁴⁵ but, on the whole, the

⁴⁴ For this interpretation, see Housman 1903–30 *ad* 1.926, Baldini Moscadi 1981*b* (who also provides a *historia quaestionis*), Fels 1990: 441–2, and Goold 1992: 78 n. a.

⁴⁵ Van Wageningen 1921 *ad loc.* suggests an alternative interpretation by which *caelum* would be the subject of *quaerat* and Manilius would be expressing the wish that, after the apotheosis of one ruler (Julius Caesar), heaven not greedily demand the deification (and thus death) of yet another (Augustus). This motif of the emperor’s hoped-for *sera immortalitas* is found all over Augustan poetry (see the passages collected by Housman 1903–30 *ad* 1.926) and is hinted at as well at the end of the first *Georgic* (1.503–4). However, the theme is not present elsewhere in Manilius, and the change of subject between *dederit* and *quaerat* proposed by van Wageningen is, in my opinion, impossibly abrupt (cf. Baldini Moscadi 1981*b*: 234).

last two lines of *Astronomica* 1 make a nice ring with Manilius' first mention of the emperor in 1.7–10 (see Bechert 1900: 300 and Baldini Moscardi 1981*b*: 238). Both passages employ the title *pater patriae* and refer to the deification of the ruler's father; also, both are placed in contexts that stress the importance of peace (in 1.13, shortly after his mention of the emperor, the poet states, *hoc sub pace uacat tantum*, 'this [writing about the cosmos] is possible only in times of peace'). In both cases, the living emperor referred to appears to be Augustus, an identification that is further confirmed by 1.384–6 (Passage (b)). While Passage (c) (1.798–804) as it is transmitted would indicate that Augustus is already dead and deified, there are, as we have seen, reasons for emending its text so as to have it indicate that the emperor is still alive. I thus tentatively conclude that *Astronomica* 1 was written in the reign of Augustus.

There is only one mention of an emperor in Book 2, and he is clearly Augustus. In the context of his discussion of the signs of the zodiac that see, hear, love, and trick one another, Manilius mentions Capricorn as a sign that sees only itself:

(e) contra Capricornus in ipsum
 conuertit uisus (quid enim mirabitur ille
 maius, in Augusti felix cum fulserit ortum?). (2.507–9)

By contrast, Capricorn directs his gaze on himself (for what greater thing could he marvel at, he who auspiciously shone on the birth of Augustus?).

This is a clear and flattering reference to the sign of Augustus so prominently employed in the emperor's propaganda. The passage does not explicitly indicate whether Augustus was still alive when Manilius wrote these lines, but I would agree with Housman that, 'were Augustus dead and Tiberius on the throne, the instant answer to [the rhetorical question in parentheses] would be "id sidus, quod in Tiberii ortum fulsit"; for reigning emperors were always greater than their predecessors' (1903–30: 1, pp. lxi–lxx).

At this point, we may digress slightly and consider in greater detail the horoscope of Augustus, knowledge of which is necessary to understand passages like the one under consideration as well as some more controversial ones still to come. As we have seen in 4.1, and as the passing reference in *Astronomica* 2.507–9 further demonstrates, Capricorn was generally considered the sign of Augustus' birth. This fact has exercised scholars since the Renaissance, since it is not at all clear what role Capricorn actually played in Augustus'

horoscope.⁴⁶ As we know from Suetonius (*Aug.* 5) and other sources, Augustus was born on 23 September 63 BC, shortly before sunrise.⁴⁷ At this moment, the Sun was in Libra, and, given that the luminary was about to rise, Libra was also in the ascendant.⁴⁸ We might therefore expect Libra to play a crucial role in Augustan astrological iconography, and indeed there are indications that this sign was sometimes taken to be of particular significance to the emperor. In addition to two passages in Manilius to be discussed below and a passing reference in a poem from the *Anthologia Latina* to ‘Caesar who holds Libra’ (*Libram qui Caesar habet*, *Anth. Lat.* 618.4 Riese), there is the famous anticipated apotheosis of Octavian in Vergil’s first *Georgic* (already briefly mentioned in 4.1 above). As one of the possible abodes of the future god, Vergil suggests the following:

⁴⁶ On Augustus’ horoscope and the significance of Capricorn, see esp. Barton 1995—who gives a detailed *historiae quaestionis* and in her discussion builds on the insights of Brind’Amour 1983a: 62–76 and Abry 1988—and now Schmid 2005: 19–54 and 405–8; see also Kraft 1967, Dwyer 1973, Schütz 1991, Domenicucci 1996: 111–38, Orth 1996: 110–12, Brugnoli 1989, and Hannah 2005: 125–30. Rubenius 1699 is an excellent source for the discussion of the issue in the Early Modern period.

⁴⁷ The exact date of Augustus’ birthday is subject to debate (cf. Hannah 2005: 124–5). Suetonius reports it as *VIII Kal. Oct.*, ‘on the ninth day before the Kalends of October’, which (with the typical inclusive reckoning) means 23 September in the Julian Calendar. However, Augustus was born before Caesar’s calendar reform, at a time when September had only twenty-nine days and when the ninth day before the Kalends of October was thus 22 September. Some scholars therefore believe that the emperor was actually born on 22 September but after the Julian reform changed his birthday to the ‘new’ ninth day before the Kalends, i.e., 23 September (see, e.g., Brind’Amour 1983a: 70 n. 21). I am more inclined to follow Suerbaum 1980: 327–35 and others who believe that Augustus was born on 23 September (then the eighth day before the Kalends) and kept his birthday on that day (known as the ninth day before the Kalends after the reform), following the principle that what mattered for a date in the second half of the month was its relationship to the preceding Ides, not to the following Kalends (thus, Caesar himself arranged his new calendar in such a way that religious festivals kept their relative position to the Ides, even if their Kalends-related date changed; cf. Suerbaum 1980: 330–2, Hannah 2005: 122–4, and Feeney 2007: 153–4). That there was some confusion even in Augustus’ lifetime is apparent from the fact that his birthday was also sometimes celebrated on 24 September, the eighth day before the Kalends according to the new calendar (see König 1972).

⁴⁸ As Schmid 2005: 313–16 and 399–403 points out, whether Augustus’ Sun sign was in fact Libra depends on where one locates the tropic points in their respective signs (see above 3.3, fn. 76). Brind’Amour 1983a, Abry 1988, and Barton 1995 operate with the 8°-system, which places the Sun in Libra; if, by contrast, the equinoxes and solstices are assumed to occur at 1° of the tropic signs, Augustus (born just before the astronomical autumnal equinox) would still be a Virgo (thus Schütz 1991). However, there is, as we shall see in the following, strong literary evidence that Libra was regarded as the emperor’s Sun sign and ascendant (and none at all for Virgo), from which we can infer that it had been so designated by his astrologer(s).

anne nouum tardis sidus te mensibus addas,
 qua locus Erigonen inter Chelasque sequentis
 panditur (ipse tibi iam brachia contrahit ardens
 Scorpius et caeli iusta plus parte reliquit). (Verg. *G.* 1.32–5)

Or whether you add yourself as a new constellation to the slowly-rising months, where a space opens up between Erigone [Virgo] and the pincers (of Scorpio) that follow her (already fierce Scorpio pulls back his arms for you and has given up the disproportionately large area of sky [that he previously occupied]).

The poet is making a learned allusion to the fact that Libra as an independent sign was a late addition to the zodiac: its stars had previously been considered the pincers of Scorpio (Manilius and other poets thus still on occasion refer to the sign as *Chelae*, 'pincers').⁴⁹ In Vergil's whimsical *aition*, the constellation would be none other than the stellified Octavian, an identification that would make particular sense if Libra was recognized as having the special significance of being the ruler's birth sign.⁵⁰

If Libra was thus apparently of some importance to Augustus, he nevertheless chose Capricorn as his omnipresent logo, which brings us back to the question what role this latter sign played in the emperor's horoscope. As is apparent from the survey in Barton 1995: 36–40, a number of hypotheses have been mooted. First, it has been suggested that, owing to the confusion of the Roman calendar before Caesar's reform and the resultant divergence between civic and astronomical year, Augustus' supposed September birth really took place in late December, when the Sun was actually in Capricorn.⁵¹ However, it seems that this theory can be discredited, since in 63 BC the Republican calendar was in fact in sync with the seasonal year and thus virtually identical to the Julian one (see Brind'Amour 1983a: 71).

Working on the assumption that Augustus was indeed born in September, scholars have developed two main theories to account for the prominent role of Capricorn. Scaliger had already ventured that

⁴⁹ See already Serv. *ad Verg. G.* 1.33. On the history of the constellation Libra, see Gundel 1926a: 116–20.

⁵⁰ For the interpretation of this passage and its importance for later Latin poets, including Manilius, see Bayet 1939, Hübner 1977, and Montanari Caldini 1981.

⁵¹ Garrod 1911 *ad* 2.509 suggests that the pre-Julian ninth day before the Kalends of October really fell on what we would call 20 December; similarly, Feraboli 1988. Conversely, Radke 1972: 258–63 and 1990: 78–85 thinks that Augustus' pre-Julian birthday was so-called 17 December (whence the determination of Capricorn as the Sun sign), which he realized only later was really (Julian and astronomical) 23 September.

Capricorn was the sign not of Augustus' birth but of his conception, an idea that has found numerous adherents through the centuries.⁵² Ancient sources occasionally stress the importance of the moment of conception (as the true beginning of life) for the shaping of a person's fate (e.g., Ptol. *Tetr.* 3.2.1–2); as for the obvious problem of determining exactly when conception had taken place, this could be surmounted by assuming an idealized gestation period, often put at 273 days (see Vett. Val. 1.23–4).⁵³ If Augustus was born on 23 September 63 BC, he must thus (at least according to the Julian calendar) have been conceived on 24 December of the previous year, at a time when the Sun stood in Capricorn. And if—as we may assume for the sake of parallelism—conception, like birth, took place in the early morning, Capricorn was in the ascendant as well.⁵⁴

The second theory was made popular by Housman 1913, who picked up on a suggestion of Smyly 1913: 150–9 (though, as Barton 1995: 38 shows, the idea goes back to the seventeenth century). On this view, the importance of Capricorn derives from the fact that it was the Moon sign of Augustus' birth. Housman in particular believed that the sign that carried the Moon held a special significance in contemporary astrology; we have already seen (3.4 above) that, in his opinion, the influences of the zodiacal signs described in Manilius 4.122–293 obtain when the Moon is in them, and we will encounter below further evidence of his strongly lunar interpretation of Manilius' astrology.

In addition to these two main hypotheses, it has been proposed that at Augustus' birth, the Lot of Fortune fell in Capricorn⁵⁵ and that Capricorn was of special significance to the emperor owing to the fact that it had been ascending simultaneously to the rising of Caesar's comet in 44 BC.⁵⁶ We are thus confronted with a whole number of potential

⁵² See Scaliger 1579, commentary pp. 104–5 (though differently 1600, commentary pp. 162–3).

⁵³ On the use of the moment of conception in ancient astrology and on the various methods for calculating it, see the monograph of Frommhold 2004.

⁵⁴ A problem with the conception hypothesis is that many of our sources seem to connect Capricorn specifically with Augustus' birth, e.g., Suetonius, who explicitly calls the sign the one *quo natus est* [sc. Augustus] (*Aug.* 94.12).

⁵⁵ See esp. Gundel 1926b: 313–20 (though the idea is found already in Rubenius 1699) and Schmid 2005: 25–7; as Domenicucci 1996: 117 n. 68 points out, whether the Lot of Fortune was actually situated in Capricorn at Augustus' birth depends on one's method of calculation.

⁵⁶ This was observed independently by Domenicucci 1996: 119–21 and Ramsey and Licht 1997: 147–53, both of which point to the cryptic remark by Pliny the Elder that Augustus rejoiced at the appearance of the comet since he 'believed that it had come into

astrological roles for the sign, and credit is due to Barton 1995 for pointing out that there is no need to settle on one of them: 'There must always have been not one single sense in which Capricorn was Augustus' birth-sign, but many senses' (34). Owing to its *mixtura* of a near-infinite number of astrologically relevant features, any horoscope is always overdetermined, and it is this very polyvalence that makes possible the astrologer's task of constructing a meaningful narrative of the native's fate. In the case of Augustus, Capricorn could be spotted in a multitude of potentially significant positions—it was the Sun sign at conception and the Moon sign at birth; the ASC at conception; the IMC at birth; the Lot of Fortune at birth; and the ASC at the appearance of Caesar's comet—and could therefore be convincingly presented as Augustus' sign par excellence. At the same time, other signs such as Libra (Sun sign and ASC of the emperor's birth; MC of his conception) could also be highlighted as significant and made to play an occasional role in Augustan ideology.

The designation of Capricorn as *the* sign of Augustus is thus the result not of its inherent prominence in the emperor's birth chart (where it is just one of a number of potential lead players) but of a conscious choice (or repeated choices) on the part of the ruler, his astrologer(s), and the poets and artists who made creative use of the sign. But why Capricorn and not, for example, Libra, which one could argue is at least as prominent in Augustus' horoscope, but far less important in his astrological propaganda?⁵⁷ The emperor's choice is particularly interesting, since Capricorn is not in fact a sign with many positive connotations, which makes its use as an Augustan logo somewhat—and perhaps deliberately—'provocative' (thus Abry 1988: 111–13).⁵⁸ Of major importance is the fact that Capricorn is one of the tropic signs (as is Libra) and houses the Sun at the winter solstice. It is thus associated with cosmic renewal and the return of light and of longer days, a set of concepts that

being for him and that he was being born under it' (*sibi illum [sc. cometen] natum seque in eo nasci interpretatus est*, *HN* 2.94). Domenicucci 1996: 119–20 plausibly suggests that the appearance of the comet may have occasioned the casting of a katarchic horoscope for Octavian, in which Capricorn was determined to be in the ascendant.

⁵⁷ The meanings of Capricorn as an Augustan sign are examined by Abry 1988: 111–21 and Barton 1995: 44–7; see also the other works cited in fn. 46 above.

⁵⁸ The rule, reported in Firm. Mat. *Mathesis* 8.28.1, that a man born with the first degree of Capricorn in the ascendant will become a *rex imperator* probably alludes, after the fact, to the very horoscope of Augustus (in this case, that of his conception; see above) rather than being an indication of any inherently royal nature of the sign (cf. Brind'Amour 1983a: 73 and Domenicucci 1996: 115–16 and 122).

fits well with Augustan ideas of deliverance (from the darkness of the Civil Wars) and restoration (of a new 'golden' age of light).⁵⁹

The tropic signs generally play an important role in Augustus' horoscope, in two different ways. First, the fact that Libra is in the ascendant makes for a birth chart of pleasing simplicity: the four centres fall in the four tropic signs (ASC: Libra; MC: Cancer; DESC: Aries; IMC: Capricorn), and, because the birth occurred (more or less) at the rising of one of the equinoctial points, the quadrants and places are of equal size.⁶⁰ The association of the tropic signs with the seasons and the regular course of the year could be transferred to the native himself; as Abry 1988: 110 writes: 'la superposition des quatre points cardinaux du thème aux quatre points tropiques de l'année faisait, d'emblée, de l'enfant né sous cette configuration le maître des saisons, l'image vivante du déroulement de l'année.'⁶¹ Second, having the Sun in Libra meant that Augustus was born close to the autumnal equinox.⁶² That being born at one of the tropic points of the year (which implies having been conceived at another) was considered particularly promising is apparent from the fact that, according to Tarutius Firmanus (see 4.1 above), Romulus and Remus were conceived at the summer solstice and born at the spring equinox.⁶³ Another obvious example is Jesus, whose birth around the winter solstice gave rise to the light symbolism still associated with Christmas today.

⁵⁹ Other possibly important aspects of Capricorn include its association with rule over the west (see Hor. *Carm.* 2.17.19–20 and Prop. 4.1.86), which would have been useful to Octavian in his ideological battles with the 'eastern' Antony, and its catasterism story (known to us through none other than Nigidius Figulus, fr. 98 Swoboda; see Dwyer 1973), which links the sign with the battle of the gods against Typhon and the Egyptian myth of Horus' revenge against Seth (a model for Octavian's revenge against the assassins of Caesar).

⁶⁰ That both the Sun and the Moon find themselves at cardinal points may have been considered additionally favourable (cf. Gundel 1926*b*: 316–17); Schmid 2005: 286–7 points out that the Sun is also in the ascendant in the imperial horoscopes of Nero and Hadrian.

⁶¹ Gundel 1926*b*: 318 compares the remarkably similar horoscope of the religion and nation of Islam (reported by Stephanus of Alexandria; see Neugebauer and van Hoesen 1959: 158–60 (no. L 621) and the discussion in Beck 2007: 111–18), which likewise has Libra in the ascendant (with the other tropic signs at the other centres) and the Moon and the Lot of Fortune in Capricorn.

⁶² As is apparent from the tables in Tuckerman 1962 and 1964, during the lifetime of Augustus the astronomical autumnal equinox never fell on 23 September (of a retrojected idealized Julian calendar) but occurred shortly thereafter.

⁶³ On Tarutius' horoscope of Romulus, see Brind'Amour 1983*a*: 240–9, Domenicucci 1996: 123–8, Grafton and Swerdlow 1986: 148–50, and Frommhold 2004: 226–38; see also below on Tarutius' horoscope of Rome.

That the tropic signs were deemed significant for Augustus is apparent also from one of the greatest monuments of Augustan Rome, the enormous sundial (an Egyptian obelisk commemorating the victory over Antony and Cleopatra) erected on the Campus Martius and dedicated in 9 BC.⁶⁴ It is in the nature of sundials that the behaviour of the shadow cast by the gnomon is most striking on the solstices and equinoxes, being shortest at the summer and longest at the winter solstice and hitting subsequent points on a straight (as opposed to curved) line on the equinoxes. It is not clear whether Augustus' installation was a fully developed clock that allowed the observer to read the time of day by charting the course of the gnomon's shadow over a metal grid laid out on the floor (thus Buchner 1982) or whether it consisted solely of a meridian line, which the shadow hit every day at the moment when the sun was highest in the sky, thus enabling the determination of noon and serving as a kind of calendar as the length of the shadow changed over the course of the year (thus Schütz 1990). Part of this meridian line has been excavated (it dates from the time of Domitian but probably represents a restoration of the earlier instrument), and it shows the names of the signs of the zodiac inscribed alongside: at the winter solstice (the supposed anniversary of the emperor's conception), the gnomon's noontime shadow would have reached the end of this line, labelled with the name of the imperial sign Capricorn, and observers would have known that, from this moment onward, light would return and the days would grow longer; similarly, they would have been able to mark the summer solstice and the equinoxes, including that of autumn, which, of course, occurred in the sign of Libra and (more or less) coincided with the birthday of Augustus.⁶⁵

It has not to my knowledge hitherto been suggested that Manilius' discussion of the four tropic signs in 3.618–82, which most commen-

⁶⁴ On the sundial and its astrological significance, see Buchner 1982, esp. 346–8; note, though, that Schütz 1990 shows up fundamental flaws in Buchner's reconstruction. See also Barton 1995: 44–6, Schmid 2005: 305–39, and Rehak 2006: 62–95.

⁶⁵ As mentioned in fn. 62, the autumnal equinox did not coincide exactly with Augustus' birthday (see also Schütz 1990: 446–8 and Schmid 2005: 311–16), but this need not have prevented his contemporaries from making the connection: as we have already seen in *Astr.* 3.676–82, the exact placement of the tropic points was an object of debate, and the actual occurrence of the solstices and equinoxes may not always have agreed with when people thought they should occur (for different ideas in antiquity of the date of the equinox, see Lehoux 2007: 528, s.v. 'Equinox, autumnal'). As long as Augustus' horoscope could be meaningfully associated with the tropic signs, I doubt that the astronomical nitty-gritty (which few people could claim to command) mattered much (cf. Rehak 2006: 84).

tators deem purely ornamental, might have something to do with their astrological significance for Augustus. As discussed in 3.3 above, Manilius makes it sound as though the tropic signs ‘make the world go round’, keeping in motion the wheel of the zodiac and thus the movement of fate. His treatment can be understood as a learned tribute to a ruler in whose horoscope(s) the tropic signs (especially, but not exclusively, Capricorn and Libra) played such prominent roles and who was therefore destined to be, as Abry 1988: 110 puts it, ‘le maître des saisons’ (see above). The poet’s verses thus function as a kind of verbal equivalent to the sundial of Augustus: by highlighting the role of the equinoxes and solstices in the course of the year, both artefacts obliquely pay their compliments to the emperor so closely associated with these ‘turning points’ of space and time. If this interpretation of the finale of *Astronomica* 3 is correct, it is a strong indication that the book, which otherwise lacks datable material, was still written under Augustus, just as I believe Books 1 and 2 were.

The most astrologically interesting (and thus chronologically controversial) references to the emperor occur in Book 4 and bring us back to the issue of Augustus’ horoscope. In his discussion of the significance of individual zodiacal degrees, Manilius describes the influence of the first point of Libra as follows:

(f) sed cum autumnales coeperunt surgere Chelae,
 felix aequato genitus sub pondere Librae.
 iudex examen sistet uitaeque necisque
 imponetque iugum terris legesque rogabit.
 illum urbes et regna trement nutuque regentur
 unius et caeli post terras iura manebunt. (4.547–52)

But when autumnal Libra begins to rise, blessed is he who is born under the equal weight of the Balance. As a judge he will hold the scales of life and death and will put his yoke on the lands and impose his laws. Cities and kingdoms will tremble before him and will be ruled by the nod of one man’s head, and after the earth the rule of the sky will await him.

This positive description of the monarch born at the rising of Libra is a clear reference to Augustus, who, as we have seen, had the sign in the ascendant at his birth. By referring to it as *autumnales* . . . *Chelae* (547), Manilius may even be alluding to the fact that Libra was the emperor’s Sun sign as well: of course, *autumnales* can be taken as a merely ornamental allusion to the sign’s association with autumn and the autumnal equinox, but it is possible also to take it predicatively and

translate, ‘when in autumn, Libra begins to rise . . .’. A ruler of the world is thus not born whenever Libra ascends (which, after all, happens every day), but only in autumn, when the sign also carries the Sun, as was the case with Augustus.

If the passage clearly alludes to Augustus,⁶⁶ it contains no indication as to whether the emperor is still alive—after all, the description of the man born at the rising of Libra is kept in purely general terms. One might well argue that Manilius would no longer highlight Augustus’ horoscope if the ruler were already dead (and we should keep in mind that proponents of the hybrid hypothesis assume that the demise of Augustus occurred some time between the composition of *Astronomica* 2 and that of Book 4), but this argument is not decisive and we need to take into account the other relevant passages in the same book. The next important reference to the imperial family occurs in the context of Manilius’ zodiacal geography and contains the *Astronomica*’s only explicit mention of Tiberius:

(g) Virgine sub casta felix terraque marique
est Rhodos, hospitium rectori principis orbem,
tumque domus uere Solis, cui tota sacrata est,
cum caperet lumen magni sub Caesare mundi. (4.763–6)

Under the tutelage of chaste Virgo, Rhodes is blessed on land and sea, the dwelling place of him who would rule the world, and then indeed the house of the Sun, to whom it is wholly consecrated, at that time when it received the light of the great world under the rule of Caesar.

Apropos of his observation that Rhodes belongs to the part of the world ruled by Virgo, Manilius is unmistakably alluding to Tiberius’ sojourn on the island from 6 BC to AD 2. In highly complimentary fashion, the poet equates the prince with the Sun god, who was worshipped on Rhodes and on this occasion (thus Manilius’ conceit) truly made the island his home.

This passage has elicited a lot of controversy, with scholars disagreeing whether the lines were written when Tiberius had already become emperor or still during the reign of Augustus. Much depends on the interpretation of *rectori* (764) and *sub Caesare* (766). To begin with the second, this has been understood as ‘in the person of Caesar’ (thus

⁶⁶ Only Fels 1990: 472 claims that it is about Tiberius, but he is confusing the influence of Libra ascending (at issue here) with the question of whether Libra was the Moon sign of Tiberius (of importance further below).

the translation of Goold 1992, who follows Housman 1903–30 *ad* 4.766), which would mean that the Sun, the *lumen magni...mundi* (766), visited Rhodes, as it were, incarnated in the person now referred to as *Caesar*—that is, the present emperor. On this interpretation, *Caesar* is Tiberius, and the passage was written after AD 14. It is, however, not clear that *sub Caesare* can really have this meaning. It would be much more normal to understand the phrase as ‘under the rule of *Caesar*’ (see Brind’Amour 1983a: 69), which would imply that Tiberius stayed on Rhodes when the world was under the rule of an emperor—namely, Augustus. All that is said, then, is that, at the time of Tiberius’ Rhodian retreat, Augustus ruled the world, without any indication whether this is still true—though the use of *Caesar*, typically employed by Manilius for the living emperor, would seem to point in that direction.

As for *recturi*, this can be taken in two different ways. Is Manilius saying that, at the time of his stay on Rhodes, Tiberius was *recturus*, ‘someone who would one day rule’, as confirmed by the fact that ‘now’, at the moment when the poet is writing, Tiberius is indeed emperor? Or does *recturus* mean that ‘now’, as Manilius is writing, Tiberius is a ‘future ruler’ by virtue of having been officially designated Augustus’ successor in AD 4? In other words, has the future expressed in the participle already become a present by the time of composition, or is it still a future? It is impossible to settle the matter on grammatical grounds: whereas Bannier 1909 collects a number of parallel passages to demonstrate that the future implies that Tiberius must already be ruling at the moment of the line’s composition, Flores 1960–1: 35–43 deduces from Manilius’ use of the future participle elsewhere that, at the point of utterance, Tiberius’ rule is still in the future.

The question to ask of the passage is not syntactic so much as pragmatic: would it have been possible for Manilius to celebrate Tiberius qua heir to the throne as extravagantly as he does at a time when Augustus was still alive? The prince had been recalled from Rhodes in AD 2 and adopted by his stepfather in AD 4, so by the time of the *Astronomicā*’s composition (after AD 9) his status as the emperor’s successor was well known and had made him the recipient of honours and adulation. Consider the following epigram by the Greek poet Apollonides, which describes an omen that supposedly occurred on Rhodes shortly before Tiberius’ recall: an eagle (a bird associated with royalty but not one indigenous to the island) took position on the prince’s house, thus forecasting his future greatness (cf. also Suet. *Tib.* 14.4). The speaker of the poem is the eagle itself:

ὁ πρὶν ἐγὼ Ῥοδίοισιν ἀνέμβατος ἱερὸς ὄρνις,
 ὁ πρὶν Κερκαφίδαῖς αἰετὸς ἱστορίῃ,
 ὕψιπετῇ τότε ταρσὸν ἀνὰ πλατὺν ἡέρ' ἀερθεῖς
 ἦλυθον, Ἡελίου νῆσον ὅτ' εἶχε Νέρων
 κείνου δ' αὐλίσθην ἐνὶ δώμασι, χειρὶ συνήθης
 κράντορος, οὐ φεύγων Ζῆνα τὸν ἐσσόμενον. (*Anth. Pal.* 9.287)

I, the holy bird who had never before alighted among the Rhodians, the eagle, previously a fable to the sons of Cercaphus, I came, borne aloft through the broad sky on my high-flying wings, at that time when Nero [i.e., Tiberius] held the island of the Sun. I lodged in his house, tame to the ruler's hand, not shrinking from the future Zeus.

As Bowersock 1984: 181 has demonstrated, the epigram must have been written after Tiberius' return to Rome (since his stay on the island of Helios—note the parallel to Manilius—is treated as a past event; see line 4) but before AD 4, since the prince is still referred to as Nero, a name he no longer used after his adoption, when he became known as Tiberius Iulius Caesar. What the epigram shows, then, is that it was possible for a poet to hail Tiberius as future ruler of the world at the time when he was already Augustus' chosen successor but had not yet ascended to the throne.⁶⁷ Apollonides' use of the future participle in the phrase Ζῆνα τὸν ἐσσόμενον ('Zeus to be', line 6) is in fact quite similar to Manilius' designation of Tiberius as *recturi principis orbem* ('he who will rule the world as emperor', 4.764). Of course, this parallel does not prove that Manilius' lines were written before Tiberius' reign (as those of Apollonides apparently were), only that there is no reason why they could not have been.⁶⁸

Only a few lines after the discussion of Rhodes, we encounter another mention of *Caesar*, as Manilius has moved on from Greece to Italy and from Virgo to Libra:

⁶⁷ Unlike Bowersock 1984, Gow and Page 1968: 2.160 believe that the poem dates from after AD 4, perhaps from very closely after the adoption, which would account for the use of the prince's old name. Crucially, however, they see no reason why it would have to have been written after AD 14.

⁶⁸ I wonder whether Manilius knew Apollonides' poem and imitated it in the passage in question. While the episode with the eagle plays no role, the reference to the Sungod and the use of the future participle, as well as the similarly constructed temporal clause (*tumque... cum*, 765–6; cf. *τότε... ὅτ'*, 3–4), may be based on the epigram. Bowersock 1984: 180–2 situates Apollonides' epigram in the context of a group of Tiberian partisans; Manilius' highly complimentary lines about the prince may likewise be expressive of the poet's support of Tiberius and/or of Tiberius' patronage of the poet.

- (b) Hesperiam sua Libra tenet, qua condita Roma
orbis et imperium retinet discrimina rerum
lancibus et positas gentes tollitque premitque,
qua genitus Caesar melius nunc condidit urbem
et propriis frenat pendentem nutibus orbem. (4.773–7)

Its own sign Libra rules Italy. Founded under it, Rome, the ruler of the earth, holds the decision over all things and raises and lowers the peoples placed in her scales. Born under it, Caesar has now founded the city in a better way and directs the world that hangs on his commands.

According to the poet, Libra was the sign of both the foundation of Rome and the birth of *Caesar* (apparently the living emperor), who is presented as a second, and better, founder of the city.⁶⁹ As is his wont, Manilius does not say what role Libra played in the two horoscopes in question, nor does he disclose the identity of *Caesar*, and some historical and astrological detective work is needed to uncover both. One theory, championed especially by Housman and followed by those who posit a Tiberian date for *Astronomica* 4 or for the poem as a whole, maintains that Manilius is here talking about Libra as a Moon sign. According to our ancient sources, the horoscope of Rome constructed by Tarutius Firmanus (which is presumably Manilius' source) placed the Moon in Libra; in fact, this is the only specific thing that Cicero tells us about it (*Romamque, in iugo cum esset luna, natam esse dicebat*, 'and he said that Rome was born when the Moon was in Libra', *Div.* 2.98), though other authors provide greater detail.⁷⁰ The emperor in question would then be Tiberius, who was born on 16 November 42 BC, when the Sun was in Scorpio and the Moon in Libra.⁷¹ The central role the Moon plays in this interpretation makes it especially appealing to those who believe

⁶⁹ Note that *Caesar melius* (776) is Housman's emendation of the manuscript readings *Caesarque meus* and *cum fratre Remus* (cf. the apparatus in Goold 1998).

⁷⁰ Tarutius' horoscope is reported in Plut. *Rom.* 12, Solin. *Collectanea rerum memorabilium* 1.18–19, and John the Lydian, *De mensibus* 1.14; for modern discussions, see Brind'Amour 1983a: 240–9, Grafton and Swerdlow 1986, and Abry 1996.

⁷¹ That Scorpio was Tiberius' Sun sign is assured, but Brind'Amour 1983a: 71 calls into question whether the Moon was really in Libra at his birth. Unlike in the case of Augustus, we do not have any written sources that discuss his horoscope, and other pieces of evidence are few and far between (cf. Domenicucci 1996: 147–8). The Gemma Augustea (which also displays a medallion of Capricorn) shows Scorpio on a shield in the context of the commemoration of Tiberius' military victories (cf. Figure 12), while two coins of the queen Pythodoris Philometor of Pontus display Tiberius on the obverse and a pair of scales with a star—presumably meant to represent Libra—on the reverse (Waddington, Babelon, and Reinach 1925: 22, nos. 20 and 20a with plate 3, nos. 9 and 10). Both artefacts date from before Tiberius' ascension to the throne (the gem was crafted around AD 10; on the coins, see Bayet 1939: 154–5 n. 6).

that Capricorn, too, owed its importance to being Augustus' Moon sign,⁷² as well as to scholars who, like Housman, think that Manilius' zodiacal influences generally apply to signs as they carry the Moon.

There are, however, three problems with the identification of *Caesar* as Tiberius. First, the description of the emperor as a second founder of Rome would fit much better with Augustus, whose building programme was famous and who was frequently likened to Romulus (see Domenicucci 1996: 123–6, with references). Second, if we accept the more likely interpretation of *sub Caesare* in 4.766 and if the emperor during whose reign Tiberius visited Rhodes is thus Augustus, it would be extremely confusing if, only ten lines later, *Caesar* referred to a different ruler. And, third, when Libra was last celebrated as a sign associated with world rule (4.547–52=Passage (*f*)), the reference was to Libra as the ascendant and Sun sign, a role it crucially played in the horoscope of Augustus (see de Callatay 2001: 52–3). In other words, it would make much better sense if the *Caesar* of 4.776 were Augustus, not Tiberius.

The apparent problem with taking the emperor born under Libra as Augustus is that Manilius would be switching from talking about a Moon sign to a Sun sign-*cum*-ascendant and that, instead of expressing a parallel, the phrases *qua condita Roma* (773) and *qua genitus Caesar* (776) would in fact describe two astrologically different situations. Some scholars do not consider this a problem (e.g., Flores 1960–1: 12–16), and we might point to Manilius' general vagueness in assigning the influences of the signs to their specific roles in a birth chart. However, there is another solution: what if Libra were not only the Moon sign of the foundation of Rome, but also its Sun sign, thus creating a perfect parallel between the coming-into-being of the *urbs* and that of its second founder Augustus? At first sight, this would seem to be a lost cause, as our ancient sources for Tarutius' horoscope unanimously place the Sun in Taurus. However, as Brind'Amour 1983a: 245–6 and Grafton and Swerdlow 1986: 151–2 have shown, this information is plainly in contradiction with the rest of the horoscope: Tarutius fixed the foundation of Rome on 4 October 754 BC, a day when the sun was indeed in Libra. The presence of Taurus in our sources can be explained with the fact that Rome's birthday was traditionally believed to be 21 April, in

⁷² See Housman 1913: 113: 'the relation of Libra to Tiberius was the same as that of Capricorn to Augustus, and these are the two signs which the Moon was traversing when the two emperors were born.'

keeping with the story that Romulus founded the city at the time of the spring festival Parilia. Thus, the ‘error for the sun . . . appears to be the work of someone quite early who shifted the sun from Libra to Taurus to fit the date of the Parilia’ (Grafton and Swerdlow 1986: 151). At the time of Manilius, however, not quite sixty years after the publication of Tarutius’ horoscope,⁷³ it would still have been known that the real Sun sign of Rome was in fact Libra. If this is so, all the problems with our passage disappear: in both the case of Rome and that of *Caesar*, Manilius is talking about Libra as the Sun sign,⁷⁴ and the emperor is, of course, Augustus, who would seem to have been alive when Manilius composed the lines.

The last passage of relevance to the poem’s date occurs at the very end of Book 4 and concerns the apotheosis of Augustus:

- (i) ne dubites homini diuinos credere uisus,
iam facit ipse deos mittitque ad sidera numen,
maius et Augusto crescet sub principe caelum. (4.933–5)

Lest you hesitate to ascribe vision of the divine to man: already he makes gods himself and sends divinities to the stars, and under the leadership of Augustus, heaven will grow greater.

In the preceding lines, Manilius has been arguing that human beings are able and, in fact, called upon to understand the secrets of the universe. Now, with somewhat tortuous logic, he uses man’s ability literally to ‘make gods’ (that is, to declare dead humans immortal) as a further point in favour of the existence of an intimate connection between heaven and earth. It is not clear whether Manilius is here talking about the already deified Augustus or whether the emperor’s apotheosis lies in the future. The use of the future tense in the last line points to the latter, in which case line 934 would refer to the consecration of Julius Caesar. Alternatively, we might assume that the deification of Augustus is a recent event (cf. *iam*, 934), whose results in the heavenly realm are still unfolding (hence perhaps the future in 935). In the light of the fact, however, that in the preceding passage (*g*), Augustus seems still to be

⁷³ It is clear from Plut. *Rom.* 12.4 that the horoscope was commissioned by Varro, but we do not know in which of his works it was included. Cicero’s *De diuinatione* (44 BC) provides a *terminus ante quem* for the construction of the horoscope, but it may have been published by Varro only later in the 40s (see Abry 1996: 136).

⁷⁴ This was first pointed out by Brind’Amour 1983a: 71: ‘lorsque Manilius écrit *Libra qua condita Roma . . . qua genitus Caesar*, il avait probablement en vue la présence du soleil dans ce signe’; see also de Callatay 2001: 53 n. 78.

alive, it makes the most sense to assume that these lines, too, were written before AD 14.

As this survey has shown, many of Manilius' references to the emperor are vague and admit of differing interpretations.⁷⁵ It nevertheless seems to me that the evidence points to an all-Augustan date at least for *Astronomica* 1–4 (Book 5, which presents itself as an afterthought and may well have been written later, contains no datable material⁷⁶). Passages (a), (b), (d), (e), (f), and (i) either more or less strongly suggest that Augustus is alive and/or identical with the *Caesar* referred to, or they at least offer no reason why this should not be the case. As for Passages (g) and (h), which have traditionally been taken as strong indications that at least Book 4 was written under Tiberius, I hope to have shown that (g) could perfectly well have been composed before AD 14 (an interpretation made in fact more likely by the phrase *sub Caesare* (4.766), which seems to imply that *Caesar*, that is, the living emperor, is Augustus) and that (h) has nothing whatsoever to do with Tiberius, as Manilius is talking about Sun signs and the *Caesar* born with the Sun in Libra is clearly Augustus. The only apparent problem with the Augustan hypothesis is Passage (c), which seems to present the emperor's apotheosis as a *fait accompli*. Given that elsewhere, though, including in the same book, Augustus appears to be alive, I suspect, as do other critics, that in this part of the text, corruptions or interpolations have rendered Manilius' original meaning irrecoverable.

Why does it matter whether the *Astronomica* was written under Augustus or under Tiberius? Both emperors made extensive use of astrology, but in fundamentally different ways. Tiberius regularly consulted his court astrologers and on numerous occasions cast horoscopes himself (including those of potential political rivals),⁷⁷ but at the same time he jealously watched over and tried to curtail the astrological

⁷⁵ Neuburg 1993: 243–57 considers this lack of clarity deliberate and expressive of Manilius' view of the/any emperor as insignificant compared to fate; cf. my discussion in 4.3 below.

⁷⁶ The idea that a passage in Book 5 (513, 510, 515, with the order of lines established by Bentley and Jacob) contains a reference to Tiberius' restoration of the theatre of Pompey destroyed in a fire in AD 22 (which would give us a—very late—*terminus post quem* for the book) has been repeatedly mooted (last by Baldwin 1987) and repeatedly successfully demolished; see already Ramorino 1898: 345–50, as well as Flores 1960–1: 56–64.

⁷⁷ See Tac. *Ann.* 6.20; Cass. Dio 55.11.1 and 57.19.3–4. Generally on Tiberius' use of astrology, see Cramer 1954: 99–108 and Domenicucci 1996: 142–8.

activities of others. Astrology was thus a private instrument of power, both in the hands of the emperor and—potentially and dangerously—in the hands of others. There is no indication that Tiberius published his horoscope (which he may well have wished to keep secret⁷⁸) and very little evidence for the use of his sign or signs in propaganda or art, and none at all after AD 14 (cf. fn. 71 above). By contrast, Augustus, as both Suetonius and Cassius Dio report, had such confidence in his fate that he made his birth chart public and used the details of his horoscope as a means of advertising his rule and its ideology. In the Augustan period, astrology was thus a public matter, with educated people knowing about the significance of Capricorn and Libra and having a basic idea of their ruler's horoscope, which—thanks to its pleasing simplicity on account of the position of the tropic signs at the cardinal points—was easy even for a layman to understand (cf. Abry 1988: 110).

Given the divergent political roles of astrology in the reigns of these two emperors, it makes much more sense for Manilius to have written his poem—or to have written it the way he did—under Augustus. While intellectual and philosophical interest in the subject matter clearly persisted after AD 14, the public significance of astrology was significantly altered. Manilius' celebration of the details of Augustus' horoscope—including the polyvalent logo Capricorn (Passage (e)); Libra as the ascendant (Passage (f)); Libra as the Sun sign (Passages (f) and (h)); and the general importance of the tropic signs (finale of Book 3)—fits in perfectly with the emperor's modes of self-representation. It is hard to believe that the same would have been true for allusions to the birth chart of Tiberius, and this provides a further reason not to take Passage (h) as a reference to Libra as Tiberius' Moon sign. Who would even have known that Tiberius was born with the Moon in Libra—and who would have wanted to say so?

If the *Astronomica* is thus a product of the intellectual and political atmosphere of Augustan Rome, it still remains to be seen how the poem relates to its historical context, including to the emperor. In a work that deals with the cosmos as a whole, how important are the specific terrestrial surroundings of its author? In other words, how Roman is Manilius?

⁷⁸ Suetonius tells us that an astrologer named Scribonius cast Tiberius' horoscope when he was still an infant and prophesied his future rule (*Tib.* 14.2); the historian does not provide any further details.

4.3. ROMAN MANILIUS

In the course of the history of Manilian scholarship, it has been repeatedly suggested that the poet was not in fact a Roman, or even a native speaker of Latin.⁷⁹ Scenarios of this kind are typically based either on the poet's supposedly inferior Latinity or on the wish to see Manilius as the member of a Greek intellectual milieu at Rome.⁸⁰ Neither argument carries much weight: while the Latin of the *Astronomica* is often difficult, the sorry state of the transmitted text needs to be taken into account, and the poetic style of Manilius has, over the centuries, also not lacked in admirers;⁸¹ as for the assumption that the poet was Greek, this is belied by the way in which he presents himself as the first (Roman) to treat the foreign (that is, Greek) subject matter of astrology (cf. *hospita sacra ferens nulli memorata priorum*, 'bearing sacred offerings from a foreign land, never mentioned by anyone before', 1.6). On numerous occasions Manilius comments on the Greek terminology used in astrology, typically adopting Greek expressions (for example, *dodecatemoria*, as explained in 2.693–5)⁸² but sometimes translating them (for example, the names of some of the twelve places, 2.886–9, 909–10, and 916–17). The difficulty of appropriating Greek material and presenting it in Latin was by Manilius' time something of a topos (see T. Fögen 2000), and the poet may be imitating above all his poetic model Lucretius, who famously complained about the *patrii sermonis egestas* ('poverty of the mother [lit. father] tongue', Lucr. 1.832) that made it

⁷⁹ Bentley 1739: p. x already thought that Manilius came from the east (though Scaliger 1600, commentary p. 2, had concluded that 'ex eius scriptis de patria nihil colligi potest'); see Kraemer 1890: 67–71, Bechert 1900: 297, and Maranini 1994: 30–1 for other theories.

⁸⁰ See esp. Goold 1961. The story about Manilius Antiochus related by Pliny the Elder (see 1.1 above), though it does not jibe with what we know about our Manilius, has no doubt contributed to the idea that the poet was a Greek-speaking freedman and intellectual (cf. Goold 1961: 171–2 + n. 6 and Scarcia 1995: 206–18 = Feraboli, Flores, and Scarcia 1996–2001: 1, pp. xvi–xxiv).

⁸¹ Thus, e.g., Scaliger 1600, commentary p. 21, judged Manilius 'Ouidio suauitate par, maiestate superior' and Housman 1903–30: 1, p. xxi declared him 'the one Latin poet who excels even Ovid in verbal point and smartness' (see also the assessments collected by Hübner 1980: 40–1 n. 7). Bechert 1900: 298 concludes reasonably that Manilius' idiosyncratic style does not as such point to his being a non-native speaker: 'Suus igitur Manilius in loquendo nobis quoque uidetur, barbarus non item'; see also van Wageningen 1928: 1117.

⁸² Other examples are found in 2.829, 897–8, 937–8; 3.162; 4.298–302, 818–20; and 5.645–6.

hard to illuminate properly the *Graiorum obscura reperta* ('obscure discoveries of the Greeks', 1.136; cf. the whole passage 1.136–9). Given the conventional nature of the topic as well as the fact that the first-person speaker of the *Astronomica* is not, of course, identical with its historical author, it is thus in theory possible that a Greek Manilius took on the role of a Latin-speaker for the purposes of poetic self-representation; I do, however, consider it unlikely that a known non-native speaker would have had his persona talk about Latin as 'our' language, as the Manilian first person does in 2.888–9.

Quite apart from the issue of language, Manilius writes from what I would call a conventional Roman perspective (cf. Bechert 1900: 298 and Abry 1983: 57). He repeatedly expresses pride in the achievements of Rome, which is quite naturally seen as the ruler of the world. This is particularly clear in the zodiacal geography of Book 4: Italy, made prominent by *rerum maxima Roma* ('Rome, the greatest of all things', 4.694), fittingly concludes the description of the commonwealth and is appropriately governed by Libra, the sign of justice and empire, whose presence at the foundation of Rome has led to the city's control of the *orbis . . . imperium* ('rule of the earth', 4.774). Similarly, the poet points to the glorious fact that the Milky Way, though home to deceased heroes of various origins, is at this point primarily peopled by noble Roman souls: *Romanique uiri, quorum iam maxima turba est* ('Roman men, whose crowd is now the greatest', 1.777).

Throughout the *Astronomica*, Manilius takes recourse to Roman history to illustrate the astrological facts he discusses. Thus, as we have already seen, the disasters forecast by comets include battles such as the defeat at Teutoburg Forest (1.896–903) and civil wars such as those fought at Philippi, at Actium, and against Sextus Pompeius (1.905–21); similarly, the hostility on earth caused by the enmities of the signs (2.579–607) has a strong taste of the Roman Civil Wars (and Manilius' description may once have contained an explicit mention of the death of Julius Caesar, now lost to the vicissitudes of textual transmission; cf. 3.3 above). Generally, Manilius ascribes to the workings of fate both the amazing rise of Rome (4.23–42; cf. 1.508–12) and the many reversals of fortune in the course of the Civil Wars (4.43–62). On a much smaller scale, the poet again and again uses Roman historical figures as examples for the influence of particular signs of the zodiac or paranatellonta. Taurus is the sign of the Serrani, the Curii, and Cincinnatus (4.148–9); the lawyer Servius Sulpicius Rufus must have been born under Libra (4.213–14); Rome's archenemy Hannibal had warlike Sagittarius in the

ascendant (4.566–7); the playful Haedi do not engender people like Cato, Torquatus, and Horatius (5.105–7); the Hyades at their rising bring forth revolutionaries such as the Gracchi (5.119–23); and the natives of Cepheus are admirers of stern Cato (5.454). Finally, the *Astronomicæ's* Romanocentric point of view is evident in the concluding simile of the poem, where Manilius compares the 'commonwealth of the sky' unmistakably to the structure of Roman society.⁸³

These examples might give the impression that Manilius is writing a Roman astrology, putting the workings of heaven in perfect parallel to events in the reality of the poet's own culture. The fact is, however, that the local colouring of the poem is comparatively muted and that the particularly Roman touches are offset by the far more general tone the poet uses most of the time when depicting life on earth. While Manilius describes the natives of the signs and especially the paranatellonta in great and delightful detail, references to specific geographic, cultural, and political settings are few and far between. Instead, it seems that the *Astronomicæ's* farmers, butchers, jurists, metalworkers, sailors, musicians, snake-handlers, pearl-divers, circus performers, and so on live in a generic Hellenistic society. One reason for this is no doubt that, in working on these passages, Manilius used a Greek source (or sources), which he adapted to some extent to Roman circumstances but whose general points (in keeping with the conservatism of the genre) he left intact. As Tamsyn Barton has shown, other astrological writers proceeded in the same manner, with the result that '[a]ttempts to pin down a precise milieu for the production of astrological ideas are doomed from the start, since it is normally impossible to identify elements which are derived from the oldest sources in their new context. It is simplest to see the social world of the astrologers as a composite culture' (1994a: 160).⁸⁴ In the case of Manilius (as perhaps in that of other authors) it is

⁸³ See also Abry 2000: 101–6 for allusions to Roman history and politics in the zodiacal geography of Book 4.

⁸⁴ Somewhat differently, Cumont 1937 (cf. already Kroll 1923) argues that astrological works even of the Imperial period largely reflect the society of Ptolemaic Egypt that provided the context of their Hellenistic sources (he does, however, exclude Manilius as being too creative to be used as reliable evidence, 18); L. Robert 1938: 76–108 is sceptical of Cumont's claim, pointing out allusions in astrological texts to specifically Roman institutions, especially the gladiatorial games (see also Abry 2007a: 661–2, specifically on Manilius). As part of an attempt to reconstruct social history from astrological writings, MacMullen 1971 is able to show that the work of Firmicus Maternus from the fourth century AD reflects different political and societal concerns from those seen in second-century authors (conversely, Cumont 1937: 207–16 detects in Firmicus references to Ptolemaic conditions and individuals); MacMullen too admits,

quite possible also that the poet did not wish to narrow down the workings of fate to one particular terrestrial arena. The stars, after all, rule not only the Romans but everybody, and while Roman examples can be used to illustrate the influence of the heavens, the influence of the heavens is not restricted to Roman examples (cf. Gundel 1927: 152).

The awareness that Rome, for all its extraordinary greatness, is only one of many empires sprung up in the course of history and that it is subject to fate like everything else provides the context even for those passages that are the most celebratory. It is true that in Book 1, Manilius highlights Rome's amazing rise from the ashes of Troy and its subsequent 'revenge' against the Greeks:

Troianos cineres in quantum oblita [sc. fortuna] refouit
imperium! fatis Asiae iam Graecia pressa est. (1.511–12)

To what an empire did forgetful fortune rekindle the Trojan ashes! Already Greece has been weighed down by the ruin of Asia.

However, this apparently chauvinistic vaunt occurs in the context of the observation that fortune has annihilated many an empire:

quot post excidium Troiae sunt eruta regna!
quot capti populi! quotiens fortuna per orbem
seruitium imperiumque tulit uarieque reuertit! (1.508–10)

How many kingdoms have been eradicated since the fall of Troy! How many peoples have been led captive! How often throughout the world has fortune brought slavery or rule or, in turn, taken them away!

The only thing that remains unchanged is heaven (*at manet incolumis mundus*, 'but heaven remains unchanged', 1.518); Rome, like everything else on earth, is subject to change. Similarly, in the proem to Book 4, Manilius points out that Aeneas' escape from burning Troy, the she-wolf's suckling of Romulus and Remus, and the birth of an empire from a shepherd's hut (4.24–30) would never have happened *nisi fata darent leges uitaeque necisque* ('if fate did not determine the laws of life and death', 23). All the subsequent events of Roman history (30–42), including the unexpected reversals in the lives of such great men as Marius (43–9), Pompey (50–6), and Julius Caesar (57–62), were brought about by fate, since, as the poet maintains, *hoc nisi fata darent*,

however, that only about a 'fiftieth part' (105) of our texts deals with specific contemporary issues. See also Konstan 1997 on how the astrological poem of Dorotheus of Sidon (1st c. AD) reflects the values and concerns of Hellenistic society.

numquam fortuna tulisset ('if fate did not cause these things, chance would never have made them happen', 49). Obviously, the influence of the *fata* is not restricted to the Romans: Manilius follows his mention of Julius Caesar with references to Croesus (64), Priam (64–5), and Xerxes (65–6) and then plunges into a general discussion of the mutability and unpredictability of human life, which can be explained only through the absolute rule of fate.

If it is thus inherent in Manilius' topic and world view that the importance of Rome is eclipsed by the importance of the fate to which it is subject, we may still ask ourselves whether the poet exhibits any particular political opinions or judgements concerning specific historical events or figures, including, of course, the emperor. What are Manilius' politics, as it were?⁸⁵ I should say at the outset that there is, in my view, very little in the poem that would enable us to reconstruct a political stance; if anything, the *Astronomica* is characterized by the conventionality and vagueness of the political ideas it expresses. Scholars have attempted to uncover partisanship on the part of the poet for particular noble Roman families, such as the Pompeii (see Goold 1961: 171–2) and the Aemilii (see Scarcia 1995: 206–18 = Feraboli, Flores, and Scarcia 1996–2001: 1, pp. xvi–xxiv), and inferred the existence of patron–client relationships. The evidence within the text, however, is not striking: if we knew independently that Manilius enjoyed the patronage of a specific member of the aristocracy, we might be able to understand references to a certain family in a certain way, but we cannot, conversely, use these references, such as they are, to posit that Manilius was the client of a specific person or *gens*.⁸⁶ Given the *Astronomica* as we have it, the best bet for Manilius' patron or literary sponsor remains Augustus, on account of the invocation in 1.7–10—though, as mentioned in fn. 31, it is not necessary to infer a personal relationship between poet and emperor.

On occasion, critics have detected a (mildly) anti-Augustan or at least ambivalent stance within the poem. Thus, for example, Baldini Moscadi 1981*a* points out that Manilius' repeated discussion of the Civil Wars (see 1.905–21; 2.595–602; 4.43–62), with its stress on the sacrilegious nature of internecine strife and its positive highlighting of such figures as Pompey and Cato, does not amount to a straightforward celebration

⁸⁵ Cf. the discussion of Salemme 2000: 64–74, who sees Manilius as a straightforward pro-Augustan defender of the principate.

⁸⁶ See also the remarks of Salemme 2000: 69–70 n. 37 against Goold's Pompeian hypothesis and cf. Alfonsi 1947.

of the achievements of Augustus. It is, indeed, striking how often the poet mentions the Civil Wars; one needs to keep in mind, however, that, by the time of the *Astronomica's* composition, this traumatic period of Roman history had become a conventional theme of oratory and poetry (see Jal 1963) and that, in discussing it, Manilius is incribing himself in a poetic tradition (as we have seen, his treatment at the end of Book 1 is directly modelled on a celebrated passage from Vergil's *Georgics*). Both horror at and ambivalence towards these intra-Roman armed conflicts were part and parcel of the subject matter, and Manilius' attitude in this regard appears conventional rather than expressive of a particular political view or party line.⁸⁷

The final simile about the magnitudes of the fixed stars has been taken both as containing a veiled criticism of the emperor and as perfectly in keeping with Augustan ideology. Already Bentley 1739 *ad* 5.733 points to the fact that Manilius, in describing a hierarchical system of different strata of society, presents the senators as the highest order without making any reference to the fact that, in the Rome of his time, the most prominent position was clearly occupied by an individual, the emperor. Does this mean that Manilius is deliberately eliding Augustus, presenting, as it were, the old Republican political system, which—as the parallel with the stars would imply—is the one actually sanctioned by the cosmos?⁸⁸ Or is the poet in fact reflecting Augustus' self-representation as a *princeps senatus* ('leader of the senate'), who, for all his eminence, is ultimately just one member of the senatorial class—and is the passage thus perfectly 'Augustan'?⁸⁹ It seems to me that the absence of the emperor from the society described at the end of Book 5 must be viewed in the context of what the simile is about. Manilius is comparing the decreasing magnitudes of the fixed stars to the different social orders of Rome. If Augustus were introduced into the equation, to what could he be compared or what could be compared to him? Perhaps it could be claimed that—according to official propaganda—the emperor holds a position comparable to that of a particularly bright first-magnitude star, such as, say, Sirius or Arcturus. However, it is clear that,

⁸⁷ Cf. Müller 1903: 62–86, who by means of a list of parallel passages documents the conventional nature of Manilius' discussion of Roman history, including the Civil Wars, in the proem to Book 4; see also Senis 1989 and Heller 2006: 131–2 on Manilius' (conventional) treatment of Pompey.

⁸⁸ See Baldini Moscadi 1981a: 68–9 and cf. Flores 1966: 89 n. 71 and 1982: 127.

⁸⁹ See Flores 1966: 87–9, Landolfi 1991b, Salemme 2000: 69–70 + n. 37, and Schindler 2000: 245 n. 103.

in reality, Augustus is more significant than the other senators and that he therefore cannot properly be likened to any of the fixed stars at all. Julius Caesar, as we have seen, turned into a comet after his death, and while Manilius, like other authors, is sufficiently vague about the quality of Augustus' anticipated catasterism, there is some indication that he imagines his future celestial identity as that of a planet.⁹⁰ While it is unlikely that the poet had a clear-cut idea of what kind of heavenly body Augustus would turn into and what kind of heavenly body he could most appropriately be compared to while alive, it seems to me nonetheless that the emperor simply has no place in a simile that compares groups (the Roman social orders and the magnitudes of the fixed stars) that are largely homogenous. If this is so, the absence of Augustus from the finale of *Astronomica* 5 cannot be interpreted as a political statement either way.

As for those passages of the *Astronomica* that deal explicitly with the emperor, these are, as we have seen in the previous section, complimentary. They are also quite conventional, containing official titles such as *pater patriae* and *princeps* and presenting Augustus in such well-known roles as ruler of the earth, bringer of peace, and second founder of Rome. There are very few references to the emperor's specific deeds or achievements and little sign of any emotional involvement with his fate on the part of the poet, of the kind that we find in such early Augustan authors as Vergil and Horace. The most important theme associated with Augustus in the *Astronomica* is that of his connection to the cosmos and his anticipated ascent to heaven. This *leitmotif* appears nearly every time the emperor is mentioned and can be interpreted in two different ways. On the one hand, the ruler comes across as being closely integrated in the universe, whose fateful workings constitute the main topic of the poem. While he is an unequivocally positive figure, whose position is indeed pre-eminent, he is also—like everything and everybody else—part of the *machina mundi*, the great mechanism of fate. As Matt Neuburg (who, unlike me, believes that Manilius' *Caesar* is Tiberius) has argued, the poet's lack of specificity in describing the emperor may have the very purpose of showing that even the *princeps* of *rerum maxima Roma* is ultimately subject to the power of

⁹⁰ See Green 2004: 247 for the inherent lack of concreteness of the concept of catasterism ('What did a catasterized person *look* like? Where in the *caelum* or οὐρανός was his dwelling?'). For the idea that Manilius may be envisaging the deified Augustus as a planet, see fn. 39 above; that he sets him apart from the fixed stars is clear from 1.802–3.

the stars: 'It is not he who rules the world, but fate, which has fated even his rule.'⁹¹

On the other hand, the emperor is on occasion depicted as invested with an astonishing power even over the cosmos itself. Reigning over the earth during his lifetime (see 1.8, 386; 4.549–52, 776–7), Augustus will after his death and apotheosis take on a leading role in the heavens, thus acting as *maximus auctor* (1.386) first in the one and then in the second realm. Manilius describes him as governing heaven in consort with Jupiter (1.800); implies that 'the rule of the sky awaits' him since he was born with Libra in the ascendant (4.552); and maintains that 'under the leadership of Augustus, heaven will grow greater' (4.935). In fact, the living emperor already comes close to being a god with cosmic powers: while 'earning the sky', Augustus is already *deus* (1.9; cf. also 1.926); he is a metaphorical star on earth (1.385); and, by virtue of his victory in the Battle of Actium, he can be described as *rector Olympi* ('ruler of Olympus', 1.916; cf. also 5.53).

These images and concepts—Augustus' anticipated apotheosis and rise to the heavens, his association with and assimilation to Jupiter (the traditional *rector Olympi*), and the play with the idea of his being a god on earth—are commonplaces of Augustan ideology and do not tell us anything about Manilius' personal feelings about the emperor;⁹² all we can gather is that the poet endeavoured to project a positive image of Augustus in a way thematically linked to his subject matter. However, if in terms of contemporary panegyric Manilius' celebration of the emperor is unremarkable, it is problematic within the context of his poem itself. For how could the never-changing heavens 'grow greater' thanks to the arrival of Augustus (4.935)? And how could at any point in time the *caeli . . . iura* (4.552) be taken over by a former mortal? Augustus' anticipated reign over the cosmos thus flies in the face of Manilius' world view, constituting a violation of the poet's stricture against the earth's making up heaven (see 2.37–8; cf. 3.4 above). In the case of Augustus, as already with his father Julius Caesar, the usual top-bottom movement of causality is inverted: *iam facit ipse* [sc. *homo*] *deos mittitque ad sidera numen* ('already man makes gods himself and sends divinities

⁹¹ Neuburg 1993: 243–57, here 256. See also DeNardis 2003: 162–202, who argues that, even though the emperor is presented as powerful, this impression is always modified by means of reference to the power of the cosmos.

⁹² Cf. the discussion in 4.1 above; specifically on Augustus as a Jupiter figure, see Ward 1933, as well as Kraemer 1890: 40–1, Griset 1931, Weinstock 1971: 304–5, Pietrusiński 1980, and Zanker 1987: 232–9.

to the stars', 4.934). When Augustus goes from being the ruler of the lands to being the ruler of the sky, the principle followed is clearly 'in heaven as it is on earth'.

It is clear that, in his praise of Augustus, Manilius is, once more, having his cake and eating it. He makes use of the contemporary discourse about the emperor's impending apotheosis and cosmic rule without making an effort to reconcile it with his views about the all-powerful and unchanging universe as expressed elsewhere. However, like the poet's all-too-earthly zodiacal signs and his depiction of celestial features and events in terrestrial terms (see 3.4 above), Manilius' ascribing to Augustus a not inconsiderable power over the cosmos also hints at a tension inherent in the *Astronomica*, a tension between the predominant view that heaven determines everything that happens on earth and a muted but persistent suspicion that, in certain ways, earth might influence heaven as well.⁹³ Manilius' poetic treatment of Augustus is thus less significant as a source for the poet's attitude towards the emperor (which seems to be conventional enough) than as yet another indication of the potential for self-contradiction found in his work. We shall return to this point in 6.3 below.

As for the historical author and his political stance, little more remains to be said. Scholars have attempted repeatedly to explain the supposedly unfinished state of the *Astronomica* with reference to the crackdown on astrology in the late Augustan and especially Tiberian periods. Perhaps the edict of AD 11, or the ascension of Tiberius, or (at the latest) the prosecution of Libo Drusus and the *senatus consulta* of AD 16 made it clear to the poet that astrology was a risky subject and that it would be opportune to shelve, for the time being, his work on the topic.⁹⁴ Or perhaps the politically explosive nature of astrology, as it was perceived in the second decade of the first century, helps explain certain features of Manilius' poem. It has been suggested that Manilius intended the *Astronomica* at least partly as a demonstration—to the emperor and other enemies of the Chaldaean art—that astrology was by no means sinister and in fact a laudable enterprise (see Bajoni 2004).

⁹³ Augustus' anticipated future reign of the heavens would be less jarring if Manilius were making more of an effort to ascribe it to fate. However, apart from the claim that the person born with Libra as the ascendant (and perhaps Sun sign; 4.547–52) will hold sway first over the earth and then over the sky, the poet does not invoke the stars as causes of the emperor's future career. In fact, 4.934–5 explicitly ascribes the apotheosis of both Julius Caesar and Augustus to human agency.

⁹⁴ Versions of this idea are found, e.g., in Bouché-Leclercq 1899: 553–4, Garrod 1911: p. lxiv, Pauer 1951: 166–9, and Baldini Moscadi 1981a: 69 n. 78.

Somewhat differently, it has been proposed that the general ‘uselessness’ of the *Astronomica* as a textbook (especially the absence of any discussion of planetary influences) is a reaction to the political situation: at a time when casting a horoscope might be considered a subversive act, Manilius wrote a book on astrology that wisely avoided teaching its readers how to construct a birth chart altogether.⁹⁵ It is possible to take this line of thought further and interpret in the same way Manilius’ vagueness about the circumstances of zodiacal influence (which prevents readers from applying their knowledge of the signs to actual people); his failure to discuss the extrazodiacal settings (as seen in Firm. Mat. *Mathesis* 8.6–17, these forecast a person’s death, a topic forbidden by the edict of AD 11); and his general concentration on ordinary people in his treatment of the natives of various signs and paranatellonta (as fishmongers are unlikely to challenge the position of the emperor).

The assumption that Manilius was somehow influenced by the well-attested political pressures applied to astrological practitioners at his time has a certain appeal, but is not supported by any evidence. It is possible that the poet decided not to finish his work in what he perceived to be an unfriendly climate; however, it is just as possible that he died or that, in fact, he regarded the poem as finished or simply had no intention of writing anything more. As for a supposed apologetic stance, no such attitude is detectable in the text. Unlike, for example, Lucretius, who knows that his addressee believes that he is leading him on a ‘path of crime’⁹⁶ and who works hard to dispel such negative views

⁹⁵ See Herbert-Brown 2002: 126: ‘Was omission of the planets Manilius’ way of foiling any accusation of providing procedures which could incite subversion?’ Herbert-Brown makes this suggestion in the context of her claim that Ovid’s *Fasti* (written at about the same time) originally contained an ‘astrological calendar’ that included discussion of planetary movement and that the poet deemed it wise to excise after the edict of AD 11. It must be pointed out, though, that this theory has no support in Ovid’s text or other sources and is in itself extremely unlikely. An astrological calendar that involves the planets is an impossibility, since the movement of the six planets other than the Sun has nothing to do with the course of the solar year as codified in the Roman calendar; the fulcrum of Herbert-Brown’s argument, the line *ponemusque suos ad uaga signa dies* (‘and we will place their own days to the moving constellations’, *Ov. Fast.* 1.310), in fact shows clearly that Ovid is interested solely in the rising and setting of constellations of fixed stars (the typical meaning of *signa*; see Le Bœuffle 1977: 24–9), which can be associated with specific dates (*suos... dies*). The Ovidian parallel to Manilius’ supposed self-censure thus collapses.

⁹⁶ See *Lucr.* 1.80–2: *illud in his rebus uereor, ne forte rearis | impia te rationis inire elementa uiamque | indugredi sceleris* (‘in this matter, I am afraid that you believe yourself to be entering the introduction to an impious philosophy and embarking on a path of crime’).

of Epicureanism, Manilius presents astrology from the beginning as a 'divine art' (*diuinas artes*, 1.1), and while he endeavours to persuade his student that it is worthwhile to pursue the subject, he never feels he has to defend it, especially not from a political point of view, an aspect wholly absent from the poet's rhetoric.⁹⁷ That Manilius' choice of topics and the way he treats them is politically motivated is conceivable, but it simply cannot be proved. Since, in my opinion, the poem was written still under Augustus, at a time when no actual legal steps were being taken against astrologers or people who consulted them, and as the composition of a theoretical work at any rate did not fall under the edict of AD 11, which concerned only the interactions of astrological practitioners and their clients,⁹⁸ it seems to me that the poet would probably not have felt pressure concerning the kind of poem he was writing; things may well have been different in the more oppressive climate under Tiberius. The *Astronomica's* occasional vagueness and lack of practical applicability are therefore, I believe, most likely not to be explained politically. I have already offered some thoughts on this topic, and the following chapter will explore in greater detail in which ways we can, and in which ways we cannot, expect the poem—a so-called didactic poem—to be actually teaching anything.

As for the historical and political context of Manilius, I hope to have shown (as far as this is possible) that the *Astronomica* was composed in the last years of Augustus' reign, that is, between AD 9 and 14 (though Book 5 could conceivably have been written later). At this time, astrology was a practice popular in Roman society; it held a special intellectual interest for the educated upper classes; and, having already been used as a political tool by various parties during the Civil Wars, it had become an integral part of the self-representation of Augustus. All these factors, we may surmise, made astrology an appealing topic for

⁹⁷ Contrast the cagey advice that Firmicus Maternus gives the budding astrologer in *Mathesis* 2.30: he is to avoid any impression that he might be answering questions that are illegal (3) and, in particular, he must refuse all discussions *de statu reipublicae uel de uita Romani imperatoris* ('about the condition of the state or the life of the Roman emperor', 4). As for the latter topic, Firmicus maintains that it does not even fall under the purview of astrology: *solus enim imperator stellarum non subiacet cursibus et solus est, in cuius fato stellae decernendi non habent potestatem* ('for the emperor alone is not subject to the course of the stars and he is the only one whose fate the stars do not have the power to rule', 5).

⁹⁸ See Ulpian, *Leg. Mos. et Rom. collatio* 15.2.2, who explains that in the times of the 'ancients' (i.e., the early days of the law), only the practice of astrology was punishable, not the knowledge.

Manilius, and the *Astronomica* can thus be viewed as very much expressive of the *Zeitgeist*. However, if the genesis of the poem can to some extent be explained with the extreme interest in and political importance of astrology in early first-century Rome, this is not what the *Astronomica* is in fact about. It is not about the practice of astrology at a particular time and place, but rather about the power of the stars as such—a power that causes, but ultimately transcends, all specific circumstances and in the face of which even Rome is just one of many empires.

Chapter 5

Teaching and Poetry

The widespread interest in astrology at the beginning of the first century AD offers an explanation for Manilius' choice of topic. However, it does not explain why the author chose to treat this topic in poetry, a format that might appear an unpromising medium for the exposition of such a technical subject matter. However, as will become clear in what follows, for Manilius poetry is not just the form in which he happens to convey his content, but an intrinsic aspect of his work. The *Astronomica* is first and foremost a poem, and in order to understand what kind of poem it is, we need to take a look at the generic and literary traditions behind it.

In this chapter, I shall first examine the *Astronomica's* affiliation with the genre of 'didactic' poetry (5.1), a topic that will return us to the question of the work's practical usefulness. I shall then move on to Manilius' intertextual relationship with earlier poets (5.2) before turning to a more detailed examination of the *Astronomica's* poetics (5.3). What will emerge from this discussion is a picture of an author who—deeply influenced by the literary history that has come before and by the poetic conventions of his time—is continuously striving for original ways of transcending the very tradition that has shaped him.¹

5.1. WHAT DO WE LEARN FROM THE *ASTRONOMICA*?

In histories of Latin literature, Manilius is typically treated under the rubric of didactic poetry. Didactic is a genre of a Greek and Latin literature that is usually said to include among others the following

¹ I have already discussed some of this chapter's topics in Volk 2002: 196–245. In order not to repeat myself too much, I shall not go into the same level of detail here and instead refer the interested reader to the earlier publication, which also contains more extended references to secondary literature.

works: Hesiod's *Works and Days*, Empedocles' *On Nature*, Aratus' *Phaenomena*, Nicander's *Theriaca* and *Alexipharmaca*, Lucretius' *De rerum natura*, Vergil's *Georgics*, Ovid's *Ars amatoria* and *Remedia amoris*, Grattius' *Cynegetica*, and Manilius' *Astronomica*.² Unlike other ancient types of poetry, didactic is notoriously hard to define and does not in fact seem to have been recognized as a separate genre by the ancients themselves. Since a standard way of demarcating genres was according to metre and since nearly all didactic poems (with the prominent exception of the Ovidian *Ars* and *Remedia*) were written in hexameters, these works were often regarded as (some kind of) epic poetry.³

There are, however, such crucial differences between didactic poetry and narrative epic that it makes sense to consider the former a genre in its own right.⁴ Most important for our purposes, rather than telling a story, a didactic poem professes to teach something, be it a body of knowledge (for example, Epicurean physics in Lucretius, astrology in Manilius) or a practical skill (for example, agriculture in Hesiod and Vergil, the art of love in Ovid). This, of course, is what makes a didactic poem didactic, but it is also where some of our problems with the genre start. For how seriously, for example, are we supposed to take Nicander's claim in the *Theriaca* that he will instruct his readers in the art of recognizing poisonous animals and administering remedies for any injuries inflicted (1–4), given that, as his editors A. S. F. Gow and A. F. Scholfield drily remark, 'the victim of snake-bite or poison who turned to Nicander for first-aid would be in sorry plight' (1953: 18)? Similarly, was it really Vergil's purpose to teach farmers with his *Georgics* or was he instead aiming primarily at delighting his readers, as Seneca the Younger proposes (*nec agricolas docere uoluit sed legentes delectare*, *Ep.* 86.15)? And what about Manilius? We have already seen that it is difficult or impossible to learn certain fundamental astrological techniques from the *Astronomica*, but what, if anything, *are* we supposed to learn? How didactic is didactic poetry?⁵

² This list is incomplete, as it leaves out works later than Manilius as well as poems about whose status as didactic scholars disagree. Generally on the genre of didactic poetry in antiquity, see Volk 2002: 25–68, as well as Effe 1977 and Toohey 1996; specifically on Latin didactic poetry, see Pöhlmann 1973, Dalzell 1996, Volk 2002, and Gale 2005.

³ For isolated theoretical attempts in antiquity to define didactic as its own genre, see Volk 2002: 30–3.

⁴ See Volk 2002: 35, 39, and 69–70; differently, e.g., Gale 2005: 101–2.

⁵ This question provides the criterion for the well-known tripartite division of types of didactic poetry of Effe 1977, who distinguishes them according to the extent and manner of their intent actually to teach.

At this point, an important distinction is in order. As I have discussed in detail in Volk 2002, what makes a didactic poem didactic is neither its author's genuine wish to teach nor its use by readers as an actual source of information. As to the first, it is quite likely that authors of different poems written in different periods significantly differed in their intentions—and it is, at any rate, no longer possible to determine these intentions anyway. As to the second, the reception of a work of literature may radically diverge from its original purpose. In addition, one can surely learn also from poems that are not considered generically didactic; thus, for example, readers are able to glean a wealth of information about Greek ritual and myth from Callimachus' *Aetia*, but the work is not usually regarded as a didactic poem. Both intention and reception are important aspects to which I shall return shortly, but it seems wise to exclude them from the definition of didactic poetry as a genre, which I—following my earlier work—propose to understand in purely formal terms.

On this interpretation, the didacticism of the genre has nothing to do with the presumed communication between author and reader, but is instead a function of the text itself. Each didactic poem shows 'didactic intent', not in the sense that it seeks to instruct its actual readership, but because, within the confines of the text, the first-person speaker explicitly takes on the role of a teacher who instructs a named or unnamed addressee or addressees in a particular field of knowledge or practical skill. To take just three examples, Hesiod tells Perses about agriculture; Lucretius teaches Memmius the intricacies of Epicurean natural philosophy; and Ovid instructs the young men and women of Rome in the art of love.⁶ A didactic poem can thus be described as a kind of mini-drama, whose plot consists precisely in the teacher's instructing the student(s). Compare the following observation of Vergil's commentator Servius (4th c. AD), who writes apropos of the *Georgics*:

hi libri didascalici sunt, unde necesse est, ut ad aliquem scribantur; nam praeceptum et doctoris et discipuli personam requirit: unde ad Maecenatem scribit [sc. Vergilius], sicut Hesiodus ad Persen, Lucretius ad Memmium. (*Prooem. ad Georg.* 129.9–12 Thilo)

⁶ Strictly speaking, it is not Hesiod, Lucretius, and Ovid themselves who instruct the student figures of their poems, but rather these poems' first-person personae. I closely adhered to this distinction in Volk 2002, but for simplicity's sake shall be using looser terminology here, on the assumption that readers are well aware of the issues involved. Further on the student figure in ancient didactic poetry, see the papers in Schiesaro, Mitsis, and Clay (eds.) 1993.

These books are didactic, whence it is necessary for them to be addressed to someone; for instruction calls for the roles of both teacher and student. Thus (Vergil) addresses Maecenas, just as Hesiod Perses and Lucretius Memmius.

Servius' choice of vocabulary brings out well the dramatic aspects of didactic: a *persona* is a theatrical mask and hence a role played on stage. It is quite obvious, though, that the two protagonists of a didactic poem—teacher and student—are not created equal. After all, it is typically only the teacher who speaks, while the reactions of the student (if any) have to be inferred, with the result that our drama is really an extended monologue presented to a (largely) silent listener.⁷

We can thus refine our definition of a didactic poem as a continuous teaching speech uttered by the text's first-person speaker within an imagined dramatic set-up. However, there is an additional important feature: these words addressed by the teacher to his student are not just written in metre (since, of course, they make up a poem), but are also presented, within the text, explicitly as poetry. By producing a teaching speech, the speaker is self-consciously composing a poem (compare Manilius' claim, in his very first line, that he will treat the stars 'in song', *carmine*⁸), and a didactic poem's *persona doctoris* is always also a *persona poetae*. This is by no means necessarily expected: the speakers of many poetic genres (from actual drama to such forms as elegy and satire) obviously speak in metre, but their words are imagined to present actual speech and there is no a priori reason why an exposition of agriculture, hunting, or astrology should be framed as poetry. But not only is this the case in all ancient didactic poems that have come down to us, but this feature—which I have termed 'poetic self-consciousness' (see Volk 2002: 6–24)—is particularly pronounced in didactic poetry, even when compared to other genres that exhibit it, such as narrative epic. The poet-teacher of a didactic poem, in the course of producing his poetic teaching speech, again and again reflects on his ongoing poem and his own role as a poet. Manilius is a prime example of this tendency, and we shall have occasion to examine many of his self-referential passages in 5.3 below.

In a didactic poem, then, the first-person speaker produces a continuous poem that is explicitly presented as such and is addressed to a

⁷ Occasionally, didactic poems report comments or objections of the student in direct speech; in Manilius, this happens in 4.387–9 and 869–72 (see below).

⁸ See Volk 2002: 209 for documentation of all self-referential uses of *carmen*, *canere*, and *uates* in Manilius.

student with the stated intent of teaching him about a certain subject matter. In Volk 2002: 34–43, I therefore posited four criteria for didactic poetry. The first two are what makes a didactic poem didactic: (1) *didactic intent* and (2) the *teacher–student constellation*. The second two, in turn, are concerned with the poetic nature of the genre: (3) *poetic self-consciousness*, as we have seen, is the explicit presentation of poetic speech as poetry, while (4) *poetic simultaneity* is the dramatic sense that the poem is evolving before our eyes (in the case of didactic poetry, we ‘watch’ the delivery of the poetic teaching speech to the student).

The *Astronomica* is a typical didactic poem according to this definition.⁹ While Manilius does not have a named student endowed with personal characteristics (such as Hesiod’s Perses or Lucretius’ Memmius), he continually addresses a second person singular, whom he presents as the recipient of his astrological instruction.¹⁰ As Neuburg 1993: 257–82 has shown, the teacher’s attitude to his addressee is generally very encouraging: thus, on two occasions when the student is close to losing heart in the face of the overwhelming difficulty of the subject matter (4.387–9 and 869–72), Manilius responds with a ‘pep talk’, reminding his addressee that the goal of the enterprise is nothing less than achieving a union with the divine (4.390–407) and reassuring him that man, as a microcosm, is indeed called upon and able to understand the macrocosm (4.873–935). That Manilius is a caring and thoughtful teacher is apparent also from the digression on his didactic method in Book 2 (750–87; discussed in 3.5 above), where the similes of the children who learn to read (an image itself taken from a didactic context) and of the building of a city serve to show that the teacher’s gradual manner of exposition fulfils a pedagogical purpose.¹¹ The ‘didactic’ nature of Manilius’ poem—in the purely formal sense

⁹ For a different take on the poem’s affiliation with the didactic genre, see Calcante 2002.

¹⁰ Manilius’ addresses to his student have been studied by Reeh 1973: 41–53, Romano 1978, Neuburg 1993: 257–82, and Volk 2002: 198–209; see also Abry 2006b: 296–305.

¹¹ Manilius’ encouraging attitude towards his student and his line of argument that humans can indeed grasp the intricacies of astrology are occasionally undermined by a more elitist stance, according to which such an understanding is granted only to the happy few initiated into the mysteries of the cosmos (2.136–49; 3.36–7; see Volk 2002: 202–9 and 5.3 below). In addition, there is the looming question of the purpose of pedagogy in a completely predetermined universe: why learn about what is fated anyway—and is learning itself not fated, too (see Neuburg 1993: 276–82)? Further on the issues of both elitism and determinism, see 6.3 below.

laid out above—is thus obvious and indeed pronounced (on the *Astronomica's* 'poetic' character, see the next two sections).

But—to return to our original quandary—even if the defining didacticism of the genre is best understood as a purely formal feature, we may still wonder whether there is not some teaching function to didactic poetry after all. Are we really not supposed to learn anything from the *Astronomica*? Were didactic poems written for readers who simply enjoyed 'watching' a Lucretius instruct a Memmius—just as they enjoyed taking in a play or following the plot of an epic poem—without picking up any information about atoms and the void? Did people appreciate the poetic craftsmanship that could produce a well-turned poem about poisonous snakes without having any interest in the snakes themselves? Why did poets write didactic poems and why did readers read them? As soon as we leave behind the intratextual markers of the genre and return to actual authors' intentions and readers' reactions, these questions reassert themselves.

As mentioned above, authorial intention is difficult to ascertain: different writers at different times may have had different objectives, and the reception of a poem may work out in unexpected ways. For example, modern scholars agree that Aratus did not write his *Phaenomena* as a textbook but used his astronomical subject matter to create an accomplished work of poetry in which he conveys his vision of the universe and man's place in it. However, shortly after the publication of the poem, it began to be used as a school text, and up to the Middle Ages, boys learned their constellations from Aratus. A work that was not meant to be didactic (or so we think) thus turned into a veritable textbook. Conversely, critics tend to believe that Lucretius really did want to teach Epicureanism (after all, much of our own knowledge of Epicurean physics comes from his poem since most of Epicurus' own work is lost). If, however, we look at the reception of the *De rerum natura* in antiquity (see Hadzsits 1935: 160–97 for an overview), we find that at least initially it was read and appreciated primarily as a work of poetry. Cicero, for example, praises its *ingenium* and *ars* (*Q Fr.* 2.10.3) but never refers to it in the context of discussing Epicurean philosophy, and it is generally the poets, not the philosophers, who read and react to the *De rerum natura*.¹² Of course, perhaps this chimes with Lucretius' own

¹² Actual Epicurean groups would not have had a need for Lucretius' poem, as they based their study exclusively on the works of the master himself. For the tantalizing possibility of the existence of a manuscript of Lucretius in the Epicurean library of the Villa dei Papiri in Herculaneum, see Kleve 1989.

(unknown) intentions, but it is striking that a work that appears so 'didactic' to us was apparently not considered such in its own time.

All this goes to show that didactic poetry's real-world didacticism (or lack thereof) is never a simple matter. However, it may be possible to make a few generalizations. It appears clear that no didactic poem is aimed at a specialist audience or intended to train a practitioner of the skill it purportedly teaches. If you want to set up shop as an astrologer, you do not read the *Astronomica*. As Barton 1994a: 134–42 shows apropos of astrology (but the same holds true for other fields as well), actual training would presumably have been oral and may well have contained trade secrets that no practitioner would have wanted to make public. Such training would also have been reasonably comprehensive, a quality notoriously lacking in even the longest didactic poems, including, as we have seen, the *Astronomica*. A didactic poem is thus not the equivalent of a teach-yourself manual: you do not become an astronomer or meteorologist by reading Aratus, a farmer by reading Hesiod or Vergil, or an astrologer by reading Manilius.¹³ Cicero's assessment of Aratus as 'ignorant of astronomy' and Nicander as a 'man with no connection to the countryside whatsoever' (*De or.* 1.69, quoted above in 1.2) shows that ancient readers did not expect the authors of didactic poems to be themselves practitioners of, or even particularly knowledgeable in, their professed arts.

Of little use to specialists or specialists-in-training, didactic poems are thus, we may surmise, targeted at an interested lay audience. It may be that such an audience is interested largely in the poetic qualities of the work in question (this, again, probably depends on the work), but it seems reasonable to assume that the envisaged readers of a didactic poem are typically amateurs who care for the subject at hand without being themselves overly engaged in it. The readers of Manilius, for example, were probably educated Romans with an interest in both poetry and the newly fashionable subject of astrology. They wanted both to read a good poem and to learn something (not everything) about the stars, without having any intention of putting what they learned into action. After all, if they wanted a horoscope cast, they could hire a professional.

¹³ One didactic poem that explicitly advertises itself as a teach-yourself book is Ovid's *Ars amatoria*, which invites the reader uninitiated in the art of love to 'read this and, having read the poem, love like an expert' (*hoc legat et lecto carmine doctus amet*, 1.2). Of course, this does not mean that the author Ovid thought his actual readers would or should use his poem as a manual.

It thus seems best to me to view didactic poems as a high-end ancient version of our coffee-table books (a comparison made by Dalzell 1996: 110–12). Today, there exist hundreds of beautifully produced volumes, full of glossy pictures, on such topics as cookery and gardening. A book of this kind on, say, Italian cuisine will contain some practical instruction (for example, recipes), some encyclopaedic information (for example, an illustrated chart of types of pasta), and many highly attractive features such as photographs of the Italian countryside and of enticing Italian dishes. It definitely has didactic potential—it is possible to follow the recipes provided—but most readers probably simply flip through the book to enjoy its beauty and to savour the *idea* of Italian cooking, rather than implement its practice. I suggest that didactic poems function in a similar manner: they are appreciated for evoking (not actually teaching) an interesting subject matter in an aesthetic way.¹⁴ If this is the case, their lack of comprehensiveness and applicability ceases to be a problem. As Richard L. Hunter writes (1995):

If a poet tells us how to make a plough, it would be foolish to believe that we can extrapolate from this to the detailed carpentry necessary for a wagon. On the other hand, the plough, the work involved in making it, and the moral conditions which make it necessary, can stand, *pars pro toto*, as exemplary of the total working conditions of the farmer. ‘Didactic poetry’ does not have to be comprehensive to be ‘didactic’.

We can thus conclude (and we may have suspected this all along) that Manilius’ poem—despite all its ‘sums in verse’ and discussions of astrological minutiae—is not really about how to do astrology, but about the idea of astrology itself. By expounding in beautiful poetry a selection of details of astrological theory and practice, Manilius creates an alluring vision of astrology as a divine science, a vision that his readers can enjoy—or feel elated by—at the same time as they appreciate the poet’s verse. Just as with coffee-table books, the attractiveness of the work is inextricably linked to its ability to arouse and sustain an interest in its subject matter.¹⁵

¹⁴ Cf. Scodel 2007: ‘One of the most important effects of great didactic poems [is] . . . the way they can convey *what it would be like* to know or believe or practice . . . whatever the topic is’ (emphasis added).

¹⁵ Understanding the didactic nature of the *Astronomica* in this way presents a further argument against the theory (see the end of the previous chapter) that the poem would have fallen under anti-astrological legislation or been considered a threat or liability in the political climate of its composition. It probably would not have been considered connected with, or seen as enabling, actual astrological practice.

Some readers may object to this comparison of ancient didactic poems to modern glossy volumes as frivolous and inappropriate. After all, the works of Hesiod, Lucretius, Vergil, and other didactic poets are typically considered high art and classics of Western literature, while coffee-table books are but mass-produced objects of modern consumerism. Such an attitude betrays a certain bias—it is, for example, possible to view contemporary food photography and book design as serious arts that may well stand the test of time—but perhaps it is indeed fair to regard a book on Italian cooking as belonging to a less elevated genre than the *Astronomica* (even though the fundamental similarities sketched out above still apply). In particular, the aesthetic character of a didactic poem works along somewhat different, and probably more complex, lines than the attractiveness of a modern coffee-table book. Simply by virtue of being a poem, as well as belonging to a specific genre, any ancient didactic work is part of a long and varied tradition and participates in a multiform discourse that affects everything from its metre and choice of vocabulary to its thought patterns and metaphors. We can therefore not simply take the poetic nature of the *Astronomica* for granted, but have to explore its place, and its self-positioning, within the context of ancient poetry in general and Latin didactic poetry in particular.

5.2. *IMITATIO* AND *AEMULATIO*

A work of literature is never produced in a vacuum but always stands in some relationship to other works that have come before: books belong to extant genres, follow admired models, or otherwise deliberately try to dissociate themselves from previously established ways of writing. This inherent intertextuality is perhaps especially pronounced in ancient literature, with its generic conservatism and tendency to idealize poetic founding fathers such as Homer; it is even more developed in Latin literature, which always defines itself vis-à-vis its Greek predecessors; and it is perhaps most strongly felt in the post-Vergilian Latin poets, who in addition to contending with their Greek models also have to come to terms with the new poetic ideal represented by Vergil.¹⁶ Intertextuality can play itself out in a multitude of ways, of which I single out three.

¹⁶ The literature on intertextuality in Latin poetry is enormous and cannot be surveyed here; Hinds 1998 provides a stimulating introduction to the topic.

First, simply by writing in a particular genre or metre, an author enters into a dialogue with earlier practitioners of the same. Thus Manilius, by composing a didactic poem, is following in the footsteps of a long series of poets from Hesiod onward; by writing in hexameters (the metre of 'epic' in the widest sense), he puts himself in a relationship with everyone who has done so before.¹⁷ Second, an author may react in particular to one or more earlier writers, whom he may either follow as positive models or try to outdo by doing things differently (or most likely a combination of both). In the case of Latin literature, scholars sometimes speak of *imitatio* ('imitation') and *aemulatio* ('rivalry') to describe this kind of approach on the part of Roman writers to both their Greek and Latin predecessors.¹⁸ Third, in addition to simply engaging with a tradition and its particular representatives, an author may also explicitly reflect on his own position within literary history and vis-à-vis specific earlier writers.

It is important to see how the third phenomenon differs from the first two. Vergil in the *Aeneid*, for example, clearly engages in an intertextual dialogue with both the epic tradition in general and Homer in particular. However, he does not explicitly say that this is what he is doing; readers have to notice it for themselves, and scholars have, over the centuries, expended much time and ingenuity on teasing out references and allusions on the level of plot, character, diction, metre, and so on. By contrast, in the *Georgics*, the poet himself announces that he is 'singing an Ascrean [i.e., Hesiodic] song through Roman towns' (*Ascraeumque cano Romana per oppida carmen*, 2.176). This raises completely different issues: it is now not simply a question of the extent to which Vergil is imitating the Archaic Greek poet in his poem; we also have to ask ourselves what purpose is served by his explicit self-representation as a Roman Hesiod.

To come back to Manilius, we have in the previous section already examined the *Astronomica* within the genre of ancient didactic poetry. The present section is dedicated to Manilius' *imitatio* and *aemulatio* of three particularly important models, while the final part of this chapter deals with some of the poet's own reflections on his place in the poetic tradition. In terms of the distinction just made, we shall thus be

¹⁷ That Manilius is conscious of doing so is apparent from 2.1–48, his list of hexameter poets from Homer on down, which ends with an extended reflection on the poet's own situation as heir to this tradition; see the next section.

¹⁸ Even though these terms are overly simplistic and have somewhat fallen from use, I still consider them valuable and shall employ them in what follows.

concerned first with cases of implicit intertextuality (to be discovered by the reader) and only then move on to explicit statements of poetics; however, a clear-cut distinction between the two will not always be possible.

Whatever Manilius' astrological prose sources may have been, his most important poetic models are Aratus, Lucretius, and Vergil.¹⁹ However, it is clear that these poets function as models in rather different ways.²⁰ As we have seen in 2.3, Manilius follows parts of Aratus' *Phaenomena* closely in his description of the constellations and other celestial phenomena in Book 1; the Greek poem is thus more a source of astronomical information than an object of poetic imitation. Lucretius' *De rerum natura*, on the other hand, by virtue of being *the* Latin didactic poem on a scientific topic, is a work that Manilius has to contend with and, if possible, surpass; this agonistic relationship is exacerbated by the fact that Manilius' world view is diametrically opposed to Lucretius' Epicureanism, with the result that their poetic rivalry is a philosophical rivalry as well. Vergil, by contrast, did not write anything whose content Manilius needs either to appropriate or to refute. As the newly canonized outstanding Latin poet *par excellence*, he is a towering presence in his follower's poetic imagination but serves largely as a formal model whose language provides a treasure trove for creative imitation. Manilius reacts to his three models in such diverse but occasionally connected areas as style and word choice, genre, content, and philosophical outlook—and, in doing so, he employs a number of different strategies.

¹⁹ Next to these three, Ovid is the most important influence. See Kraemer 1890: 55–63, Rösch 1911: 39–41, Pauer 1951: 68–79, Di Giovine 1978: 402–6, Baldini Moscadi 1981*b* and 1993, and Flores 1995 for specific instances of Manilian intertextuality with the works of Ovid; specifically on Manilius' reworking of Ovid in the Perseus and Andromeda episode (5.540–618), see Flores 1966: 17–34, Voss 1972, Romano 1980, Paschoud 1982: 126–49, Coleman 1983, Landolfi 1993, and Murgatroyd 1994. Whether Manilius and Ovid knew each other must remain open, though the poet of the *Astronomica* is not among the contemporaries addressed or mentioned in Ovid's exile poetry (the suggestion of Merkel 1837: 400–6 that Manilius is the addressee of the *Ibis* has nothing to recommend it). As for Manilius' intertextuality with other Latin poets, see Biondi 1981 on Catullus and Baldini Moscadi 1980*a* and Montanari Caldini 1987*b* on Horace.

²⁰ As detailed examinations of intertextuality are not within the 'larger picture' purview of this book (see my remarks in 1.2), I restrict myself to a few observations about Manilius' relationship to these three poets, with the simple object of throwing some light on the way and extent to which the *Astronomica* can be understood as taking part in a literary tradition.

To begin with Vergil, an attentive reader will be able to find allusions to his poems throughout the *Astronomica*.²¹ These do not seem to have the purpose of evoking Vergil specifically as a didactic poet (the *Eclogues* and *Aeneid* appear as intertexts no less than the *Georgics*) and thus as a predecessor to be followed as well as rivalled. Rather, Manilius uses Vergil's poetry—which at his time, of course, enjoyed high prestige—as something like a quarry for turns of thought and phrase, which he then employs in new contexts. The stress appears to be on novelty rather than polemic. To exemplify this procedure, let us examine the beginning of the first proem, a passage of obvious significance that is, significantly, saturated with Vergilian allusions (cf. Wilson 1985: 289–92 and 6.2 below):

carmine diuinas artes et conscia fati
sidera diuersos hominum uariantia casus,
caelestis rationis opus, deducere mundo
aggredior primusque nouis Helicon mouere
cantibus et uiridi nutantis uertice siluas
hospita sacra ferens nulli memorata priorum. (1.1–6)

By song I undertake to draw down from heaven the divine arts and the stars, knowledgeable of fate, which govern the diverse fortunes of men, a work of divine reason, and (I undertake) to be the first to move with new songs Helicon and the woods that nod with green treetops, bearing sacred offerings from a foreign land, never mentioned by anyone before.

The 'stars knowledgeable of fate' (1–2) are taken verbatim from *Aeneid* 4.519–20, where Dido, in the course of the chthonic ritual that is part of her preparation for suicide, invokes both the gods and the stars:

testatur moritura deos et conscia fati
sidera.

About to die, she calls to witness the gods and the stars, knowledgeable of fate.

By employing Vergil's phrase, taken from a pivotal moment in the *Aeneid*, at the very beginning of his own poem and in the same metrical spot, Manilius is drawing attention to his imitation and to his obvious wish to align himself with the great poet of the previous generation. However, Manilius is not simply parroting Vergil by repeating *conscia fati* | *sidera*. In the *Aeneid*, the stars on which Dido calls are clearly not

²¹ On Manilian intertextuality with Vergil, see Steele 1932: 331–5, Bayet 1939, Effé 1971, Di Giovine 1978: 398–402, Montanari Calдини 1981, Wilson 1985: 289–92, Landolfi 1990*b*, Scarcia 1993, La Penna 1997, and Hübner 2006.

'knowledgeable of fate' in the astrological sense. Quite apart from the vexed question whether Dido's death is fated or in fact occurs contrary to fate,²² it would seem that the *sidera* of *Aen.* 4.519–20 are *conscia* not because they have foreknowledge, but because they are witnesses (a typical meaning of *consciis*; see *OLD* s.v. 1 and Pease 1935 *ad loc.*) of Dido's death (a typical meaning of *fatum*; see *OLD* s.v. 6 and Serv. *ad loc.*). Indeed, Dido calls them to witness her impending suicide, and we may thus even be able to take *conscia* as proleptic: she calls the stars to witness, with the result that they become 'conscious' of her death.²³

Manilius gives a radically new meaning to Vergil's phrase. Readers who have come as far as *sidera* in the proem will have spotted the allusion to the *Aeneid* but will as yet have no idea what these Vergilian-sounding stars are about. The rest of the line, however, discloses that, unlike Vergil's *sidera*, those of Manilius are *diuersos hominum uariantia casus* ('governing the diverse fortunes of men'), that is, are physical agents within a system of 'hard' astrology. Manilius has thus appropriated Vergil's three words to express an un-Vergilian thought; he, as it were, corrects Vergil, not (I believe) in a particularly antagonistic spirit, but simply from his different vantage point, which allows him to fit old and admired forms of expression to new contexts.²⁴

The remainder of Manilius' first proem contains further references to Vergil. A. M. Wilson has shown how the poet's project of 'drawing down the stars from heaven by means of song' (*carmine . . . sidera . . . deducere mundo*, 1.1–3) alludes in a sophisticated way to three different Vergilian uses of the verb *deducere*.²⁵ Apollo famously advises Tityrus in

²² Dido herself maintains famously, *uixi et quem dederat cursum Fortuna peregi* ('I have lived and completed the course Fortune gave me', *Aen.* 4.653), but the narrator claims that she died *nec fato merita nec morte* ('neither according to fate nor by a deserved death', 696). On this problem, see now Mann 2006: 107–11, with references.

²³ Servius interprets Vergil's line astrologically—*CONSCIA FATI SIDERA id est planetas, in quibus fatorum ratio continetur* ('STARS KNOWLEDGEABLE OF FATE, i.e., the planets, in which the order of the fates is contained'; *ad Aen.* 4.519)—but, by his time, such a reading would virtually have imposed itself. I also consider it possible that the commentator was (subconsciously?) influenced by Manilius.

²⁴ On a larger scale, something similar is going on at the end of Book 1, where, as we have seen, Manilius' lament about the Civil Wars, modelled on the finale of the first *Georgic*, ends on a celebratory note quite different from the despair found in Vergil (see 2.3 above).

²⁵ See Wilson 1985: 289–90, as well as Volk 2001: 97–100 and 2002: 223–4. The use of *deducere* in the context of a proem additionally alludes to *Ov. Met.* 1.3–4 (*primaque ab origine mundi | ad mea perpetuum deducite tempora carmen*, 'lead a perpetual song from the first beginning of the world down to my own times'), where Ovid likewise plays with the different connotations of the verb (cf. Barchiesi 2005: 144–5).

the sixth *Eclogue* to ‘sing a finely spun-out song’ (*deductum dicere carmen*, 6.5), and Manilius appears at first to be engaged in the similar pursuit of ‘spinning out by means of song’ (*carmine . . . deducere*). However, this interpretation is complicated by the fact that the poet’s *deducere* has an object, *sidera*, which points to a second possible meaning of the verb, namely, that of the magical removal of heavenly bodies (cf. *sidera*) from the sky (cf. *mundo*). In Vergil’s eighth *Eclogue*, this feat is likewise described as accomplished by *carmina* (‘songs, spells’): *carmina uel caelo possunt deducere lunam* (‘songs can even draw the moon from the sky’, 8.69). In a similar magical vein, Vergil describes Hesiod in the sixth *Eclogue* as being able to *cantando rigidas deducere montibus ornos* (‘lead down from the mountains rigid ash trees by playing (the pipes)’), 6.71). Manilius ascribes to himself the comparable ability to ‘move with new songs Helicon and the woods that nod with green treetops’ (1.4–5), which aligns him with not only Vergil’s Hesiod (the founder of the genre of didactic poetry) but also the figure of Orpheus prominent in the Augustan poet’s work. By blending together Vergil’s three metapoetic uses of *deducere*, Manilius shows himself to be a master of creative imitation, someone who commands the material he has inherited and is able to put it to startlingly original use.²⁶

At the end of the first sentence of his poem, Manilius describes himself ‘as bearing sacred offerings from a foreign land, never mentioned by anyone before’ (6). We have already had occasion to remark on the foreign, that is, Greek nature of the poet’s subject matter and will return in the next section to his claim of novelty. What interests me at the moment is his self-description as *sacra ferens*, which harks back to the famous programmatic finale of the second *Georgic*, where Vergil addresses the Muses and despicts himself as their worshipper: *quarum* [sc. *Musarum*] *sacra fero* (‘(the Muses) whose sacred offerings I bear’, 476). Both poets continue to develop the religious aspect in what follows: Vergil expresses the wish to be received by the Muses and initiated in the secrets of the natural world (*G.* 2.475–82), while Manilius describes himself as a *uates* (1.23), who worships simultaneously at the two altars

²⁶ Note that Manilius uses *deducere* in metapoetic contexts also at 2.10 and 2.128. The force of the metaphor is different in the two cases: 2.10 (discussed in the next section) has to do with the derivation of channels from a stream, while 2.128 evokes the leading of captives in a Roman triumph (another Vergilian allusion, cf. *G.* 3.10–11). For further discussion of both passages, see Volk 2001: 97–100 and 2002: 212, 221, and 223–4 + n. 49.

of his song and his subject matter (20–2). By presenting himself as a bearer of *sacra*, Manilius explicitly follows in the footsteps of the poet of the *Georgics*, aspiring both to his poetic mastery and to his serious vatic stance. At the same time, the reuse of the phrase allows the later poet to imply that he is actually going one better than Vergil (see Baldini Moscadi 1986: 17–19). After all, in the *Georgics* the expressed wish for a science lesson from the Muses comes to nothing—or so we have to understand (cf. Volk 2002: 141–5): rather than writing a poem about nature (like that of Lucretius, alluded to in *G.* 2.490–2), Vergil contentedly settles for his own work about the countryside (484–6). Manilius, by contrast, fulfils the ambition expressed in his predecessor’s prayer that the Muses might ‘show (him) the paths and stars of the sky’ (*caelique vias et sidera monstrent*, 477). He is the poet of the heavens, and his sacred enterprise is thus, we have to understand, more elevated even than that of Vergil.

If this last example contains an undertone of rivalry in addition to mere complimentary imitation, Manilius’ relationship to Vergil is, on the whole, not particularly antagonistic.²⁷ Matters are different with those poets whose works have a greater similarity—in terms of subject matter, scope, or philosophical outlook—to Manilius’ own project. To begin with the most obvious example, we have already seen that part of the astronomical section of the *Astronomica* (1.255–808) is modelled on lines 19–558 of Aratus’ *Phaenomena*, and while Manilius’ version, unlike the many Latin *Aratea*, is a creative reworking and by no means a translation, it is nevertheless in many instances very close to the original.²⁸ However, interpreting individual cases of imitation is made difficult by the fact that Manilius was clearly not using only Aratus’ text as a source for his description of the constellations and celestial circles. In addition to making use of commentaries, the poet availed himself of the extant Latin versions of the *Phaenomena*: definitely that of Cicero, presumably that of Ovid, and possibly that of

²⁷ This does not mean that Manilius does not ‘rewrite’, or sometimes even implicitly polemicize against, Vergil (cf. my discussion in the text and many of the works listed in fn. 21 above). My point is rather that there is no fundamental disagreement in approach and outlook that would have warranted a sustained antagonism on the part of the later poet.

²⁸ The lists of parallel passages in Maass 1893 and van Wageningen 1915: 189–95 make it possible to trace which parts of Manilius’ poem go back to Aratean passages. On Manilian intertextuality with Aratus, see further Romano 1979a: 27–36, Montanari Caldini 1993a and b, Salemme 2007: 79–90, and Abery 2007b.

Germanicus.²⁹ As a result, we can witness, especially in those cases where we have a number of different Latin versions of an Aratean passage, the making of a common Roman poetic language for talking about the stars.

Take, for example, the mysterious Engonasin (cf. Wempe 1935: 91–2, Le Bœuffle 1977: 100–2, and Liuzzi 1988: 140–2). At the time of Aratus, this constellation (later identified with Hercules) still lacked a catasterism story and thus a proper name. As the Greek poet explains, ‘they simply call him “on his knees”’ (ἀλλά μιν αὐτως | Ἐνγόνασιν καλέουσιν, *Phaen.* 65–6). In Greek, *Engonasin*, which describes the kneeling position of the anthropomorphic constellation, is a self-explanatory name, and Aratus additionally provides a kind of gloss when, in the same line, he describes the figure as ‘labouring on his knees’ (ἐν γούνασι κάμνον, 66). The meaning of the name would be less obvious to a speaker of Latin, but Cicero, in his translation, nevertheless offers an etymological explanation, apparently counting on his readers’ knowledge of Greek: *Engonasin uocitant, genibus quia nixa [sc. imago] feratur* (‘they call him “Engonasin” because he is carried along supported on his knees’, fr. 12 Soubiran). However, in all his later mentions of the constellation (fr. 33.45, 373, 400, 456, 460 Soubiran), Cicero calls it simply *Nixus* (‘the one who supports himself’), following Aratus in using what is originally a descriptive attribute (in Cicero’s case a participle rather than

²⁹ Liuzzi 1988 discusses all Manilian passages that correspond to extant fragments of Cicero’s *Aratea*, comparing also other Latin versions; she comes to the conclusion that Manilius is especially indebted to Cicero. As for Ovid, it is unknown when he wrote his *Phaenomena*, but, unless it was a late work, Manilius would probably have known and used it. Unfortunately, the two extant fragments (1 and 2 *FPL* = 1 and 2 Courtney) do not have equivalents in Manilius. As already mentioned, the relationship of Germanicus and Manilius is unclear, but striking verbal parallels between the two suggest some form of interdependence. It seems to me that the problem of priority cannot be solved through a comparison of the texts themselves, but only by establishing the date of Germanicus’ poem on independent grounds. Unfortunately, scholars are divided between assuming a late date (c. AD 14–19), in which case the emperor addressed in the poem would be Tiberius (thus, e.g., Le Bœuffle 1975: pp. vii–xi), and positing an early one (c. AD 4–7), in which case the poem’s addressee would be Augustus and the reference to his deification in 558–60 a later addition (see, e.g., Possanza 2004: 219–43 and cf. Fantham 1985: 243–56). It seems to me that there is no reason why the busy prince could not have been working on the poem for an extended period of time, including between AD 7 and 14. Contemporaries may have been aware of the ongoing project, including Ovid (who, as Fantham 1985 argues convincingly, knew of the *Phaenomena* before going into exile in AD 8) and Manilius. Manilius and Germanicus may perfectly well have known each other, and I would not exclude the possibility of mutual poetic influence (cf. Abry 1993c, who proposes a scenario of conscious *aemulatio* between two acquainted poets, who worked on similar topics at the same time).

a prepositional phrase) as shorthand for the figure as a whole. Germanicus and Manilius are not quite so bold, designating Engonasin (whose Greek name is mentioned only once in Manilius, at 5.646, and not at all in Germanicus) as *nixa genu species* (*Astr.* 5.645, German. 627), *nixa genu facies* (German. 467), and *nixa . . . species genibus* (*Astr.* 1.315; cf. Cic. fr. 12 Soubiran).³⁰ It is clear that Cicero, through his designation of the Kneeler as *nixus*, contributed crucially to the way in which the constellation was conceived by Latin writers. Once the first step had been taken, the description of Engonasin with some form of *nixus* and either *genu* or *genibus* apparently became commonplace, and Manilius is but one witness to this development.³¹ As this example shows, the poet's intertextual relationship to Aratus is defined less by direct imitation than by taking part in the general Aratean discourse about the constellations at Rome.

Even though Manilius thus participates in the broader phenomenon of the ancient reception of the *Phaenomena*, he is not a whole-hearted follower of Aratus. Unlike Cicero, Ovid, and Germanicus, Manilius did not produce a translation of Aratus' poem, but made use of the astronomical information provided there for his own purposes, while presenting a sky and a universe that are ultimately fundamentally different from those described in the *Phaenomena*. Even though Aratus and Manilius have both been considered Stoics (for Manilius, see 6.2 below), there are considerable divergences in their views of the cosmos. In the eyes of Aratus (who wrote before the spread of astrology through the Greek world), the stars are signs for humans put up by a benevolent Zeus and mostly indicate seasonal changes and meteorological phenomena; there is next to no indication that they are imagined as causing terrestrial events.³² By contrast, Manilius' stars are active agents in a system of 'hard' astrology and physically bring about everything that happens on earth.

If Manilius is aware of this difference, he does not remark on it. His stated problem with Aratus and his followers is a different one, as is clear from the discussion of astronomical poetry in the proem to Book 2,

³⁰ See also *innixus . . . genu* (German. 673) and *nixi . . . genu* (*Ov. Met.* 8.182).

³¹ Avienius, writing considerably later, to some extent frees himself from this tradition. While he refers to the constellation five times with (*ad*)*nixus* either on its own or in combination (202, 631, 1107, 1138, and 1221), he also has other ways to describe it; crucially, he actually identifies the Kneeler with Hercules and tells the story of his catastersism.

³² For the centrality of the idea of the stars as signs in the *Phaenomena*, see Volk forthcoming; on Manilius' ideological divergence from Aratus, see Abry 2007*b*: 6–13.

where, in the context of a short history of hexameter poetry, the poet writes:³³

astrorum quidam uarias dixere figuras,
signaque diffuso passim labentia caelo
in proprium cuiusque genus causasque tulere.

quorum carminibus nihil est nisi fabula caelum
terraque composuit mundum quae pendet ab illo. (2.25–7 and 37–8)

Some have treated the varied patterns of the stars and have traced back the constellations that revolve everywhere on the wide sky each to its own origin and cause. . . . In their songs, the sky is nothing but a story, and earth has made up heaven, even though it [earth] depends on it [heaven].

The lines left out in the quotation (28–36) contain a condensed list of catasterisms, including those of Perseus, Andromeda, Cassiopeia, the Bears, Capella, Cygnus, Virgo, Scorpio, Leo, Cancer, Pisces, and Aries. It is clear that Manilius does not approve of these poets' aetiological approach to the heavens: by presenting the constellations as terrestrial figures transposed to the skies, they subvert the fundamental hierarchy between the above and the below, since it is really the stars that provide *causae* for what goes on on earth, not the other way around.

As we have seen in 3.4 above, Manilius himself occasionally comes dangerously close to describing the heavens in terrestrial terms and he is also not above telling or alluding to stories of catasterism. Still, he cannot countenance a kind of poetry in which 'the sky is nothing but a story', and his polemic against the earlier astronomical poets serves to define and elevate his own project. Manilius does not name the 'certain people' (*quidam*, 2.25) he criticizes (in the proem to Book 2, only Homer, Hesiod, and Theocritus are clearly identified), but he must be thinking of Aratus, *the* representative of the subgenre of poetry about the stars, as well as of his Latin emulators. Even though the *Phaenomena* itself contains comparatively few catasterisms, the Latin *Aratea* (perhaps under the influence of the kind of catasterism literature found in (pseudo-)Eratosthenes) abound in star myths, as does Ovid's *Fasti*. Manilius is heir to the same living tradition of writing about the stars as his Roman predecessors and contemporaries, but, while he follows

³³ For various views of this passage and the issues it raises, see Effe 1977: 123–5, Romano 1979a: 51–3 and 62–4, Feraboli, Flores, and Scarcia 1996–2001 *ad* 2.25–38, Salemme 2000: 75–104, and Volk 2001: 95–6 and 2002: 221–2; cf. the discussions above in 2.3 and 3.4.

this tradition to a certain extent, he also self-consciously parts ways with it. The author of a Latin poem entitled *Astronomica* is an Aratean by default, but Manilius can be an Aratean only up to a point.³⁴

Manilius had to engage with the Aratean tradition simply by virtue of writing about the stars, but he appears to have consciously chosen Lucretius as an object of *imitatio* and *aemulatio*.³⁵ A Latin didactic poem of extensive length treating a scientific subject from a strongly philosophical perspective, the *De rerum natura* was an obvious model that could not be ignored; at the same time, its Epicureanism constituted a challenge that the later poet with his differing world view did not hesitate to pick up. As many scholars have remarked, Manilius is a veritable anti-Lucretius, and his presentation in the *Astronomica* of an orderly cosmos ruled by fate is a direct attack on the random universe depicted by his predecessor.

There are numerous verbal allusions to Lucretius in the *Astronomica*, as well as larger episodes inspired by the *De rerum natura* (for example, the mention of the Athenian plague, 1.884–91; cf. Lucr. 6.1138–286 and Rösch 1911: 91–4). To choose just one example, in a programmatic passage from the first proem already briefly discussed at the beginning of Chapter 2, the poet describes his joy at mentally travelling through the skies:

iuuat ire per ipsum
aera et immenso spatiantem uiuere caelo
signaque et aduersos stellarum noscere cursus.
quod solum nouisse parum est. impensius ipsa
scire iuuat magni penitus praecordia mundi,
quaque regat generetque suis animalia signis
cernere et in numerum Phoebō modulante referre. (1.13–19)

It is pleasing to walk through the air itself and live strolling in the immense sky and to learn about the constellations and the contrary movements of the planets. But it is not enough to know only this: it is more pleasing to know in depth the very heart of the universe and to see how it governs and brings forth living beings by means of its signs and to speak of it in verse, with Phoebus providing the tune.

³⁴ Cf. Abry 1993c: 183–7. For the idea that *Astr.* 2.93–7 and 2.912–18 constitute two acrostics in imitation of the famous λεπτή-acrostic of Arat. *Phaen.* 783–7, see Damschen 2004: 109 n. 65.

³⁵ On Manilius' relationship to Lucretius, see Rösch 1911, with a list of passages; see also Steele 1932: 324–31, Lühr 1969 and 1973, Di Giovine 1978, Wilson 1985: 286–9, Landolfi 1990b, Flores 1996, La Penna 1997, Abry 1999b, Volk 2002: 219, 239–40, and 242, and Gale 2005: 111–12.

Manilius is here conflating two sections from Lucretius. The idea of an intellectual journey through the cosmos (a favourite of Manilius throughout the poem³⁶) is famously found in the first proem of the *De rerum natura*, where Epicurus is described as breaking through the ‘flaming ramparts of the world’ (*flammanitia moenia mundi*, Lucr. 1.73) and ‘wandering, in his mind and intellect, through the whole infinite universe’ (*omne immensum peragravit mente animoque*, 74). A different kind of joyful wandering is experienced by the Lucretian poet himself, who later in Book 1 (in a passage that in many ways harks back to the earlier description of Epicurus) presents himself as strolling through an untouched *Musenlandschaft* and rejoicing in the novelty of his own enterprise:

auia Pieridum peragro loca nullius ante
trita solo. iuuat integros accedere fontis
atque haurire, iuuatque nouos decerpere flores
insignemque meo capiti petere inde coronam
unde prius nulli uelarint tempora Musae. (Lucr. 1.926–30 = 4.1–5)

I roam through the pathless realm of the Pierides, never before trodden by any foot. It is pleasing to approach untouched fountains and drink there; it is pleasing to gather new flowers and win for my head a crown of fame from a spot from which the Muses have wreathed the brow of no one.

Manilius echoes Lucretius in his use of repeated *iuuat* (1.13, 17; cf. Lucr. 1.927, 928), stressing, like his predecessor, the pleasant experience of a journey that is both intellectual and poetic.³⁷

However, as Rösch 1911: 61–3 points out, Manilius also implies the superiority of his own enterprise over that of Lucretius.³⁸ While Epicurus mentally roamed through the cosmos and then brought back his insights about the workings of nature for the benefit of mankind (Lucr. 1.74–7), Manilius implies that such intellectual tourism is not enough (cf. *quod solum nouisse parum est*, ‘it is not enough to know only this’, 1.16). In the poet’s two-step programme, as we have already seen in

³⁶ On the motif of the heavenly journey in Manilius, see Volk 2002: 225–34, as well as Landolfi 1999, Volk 2001, 2003, and 2004, and Abery 2002*b*; see also 5.3 below.

³⁷ Note that Vergil, too, uses *iuuat* (though only once) in the context of a poetic journey metaphor (see *G.* 3.291–3), thus acting as an intermediary between Lucretius and Manilius; cf. also *Ov. Met.* 15.147–9, which, like the passage from *Astronomica* 1, features two *iuuat*’s and a journey through the heavens (see Flores 1995: 28–9, Landolfi 1999: 158–9, and Volk 2002: 225–6, as well as 6.2 below).

³⁸ Lühr 1969: 21 disagrees. According to Abery 1993*c*: 199–200, Manilius’ one-upmanship is instead directed at Germanicus.

Chapter 2, the scientific knowledge of astronomy is only propaedeutic to a deeper understanding of the ‘heart of the universe’ (*praecordia mundi*, 17), which can be achieved only through the divinely revealed art of astrology.

In the view of Manilius, of course, it is not just that Epicurus fails to go far enough; he—and hence his Roman spokesman Lucretius—also goes fundamentally wrong in his explanation of the physical world. Manilius makes this clear in one of his most openly polemical passages, which follows on the observation (1.474–82) that the movement of the fixed stars is absolutely regular:

ac mihi tam praesens ratio non ulla uidetur,
 qua pateat mundum diuino numine uerti
 atque ipsum esse deum, nec forte coisse magistra,
 ut uoluit credi, qui primus moenia mundi
 seminibus struxit minimis inque illa resoluit;
 e quibus et maria et terras et sidera caeli
 aetheraque immensis fabricantem finibus orbis
 soluentemque alios constare, et cuncta reuerti
 in sua principia et rerum mutare figuras.
 quis credat tantas operum sine numine moles
 ex minimis caecoque creatum foedere mundum? (1.483–93)

No other reason seems equally compelling to me as proof that the universe is ruled by a divine being and is itself a god and has not come together at random, as he wanted it to be believed who first built the ramparts of the world out of smallest parts and again resolved them into these. (He held that) out of these (smallest parts) consist the seas, the lands, the stars of the sky, and the void, which within its infinite territory creates worlds and destroys others, and that everything returns to its constituent parts and changes the appearance of things. Who would believe that such enormous structures arose without a divinity from tiny atoms and that the world was created through the aggregation of invisibles?

This attack, while ostensibly directed against the inventor of atomism (cf. *primus*, 486)—that is, presumably Epicurus or even Democritus or Leucippus—clearly also, or even primarily, targets Lucretius, the prime representative of atomistic Epicurean philosophy within Latin poetry (see Rösch 1911: 64–5). This is clear from the diction of the passage, which is saturated with Lucretian expressions (listed by Lühr 1969: 91–2 n. 2); note, for example, *moenia mundi* (486), which, as we have just seen, occurs in Lucretius’ description of Epicurus’ intellectual journey (Lucr. 1.73), as well as nine additional times in the *De rerum natura* (cf. Rösch 1911: 48–9).

If Manilius thus vehemently distances himself from his poetic model's philosophy (which he rhetorically belittles as unconvincing nonsense: *quis credat* . . . , 492–3), he also finds more subtle ways to hint at his own poem's superiority. We have already had numerous occasions to remark on the two similes employed to clarify the poet's didactic method (2.755–87). Of these, the comparison of Manilius' 'gradual pedagogy' to the process of schoolboys' learning to read (755–71) has a distinguished pedigree in ancient literature, while also being reminiscent of a famous analogy found in the *De rerum natura*.³⁹ Five times (1.196–8, 823–7, 907–14; 2.688–99, 1013–22), Lucretius compares the atoms to the letters of the alphabet, with the purpose of demonstrating that, just as a multitude of words can be formed through different combinations of letters, a multitude of things comes about through different combinations of atoms (see Volk 2002: 100–5, with references to secondary literature). In three of his uses of the analogy (1.823–7; 2.688–99, 1013–22), the poet explicitly likens the atoms to the letters of his own work, which is part of his larger strategy of presenting his poem *De rerum natura* as a kind of microcosm of the macrocosm that it describes, the actual *rerum natura*. According to Lucretius, both universe and poem are made up of small, indivisible parts—atoms and letters, respectively—and these, as the poet explains, behave in the same way.

Manilius, too, throughout the *Astronomica* stresses the parallel between his song and his subject matter, beginning with his simultaneous worship at the altars of *carmen* and *res* in 1.21–2. He does not use the atoms–letter analogy explicitly (of course, his cosmos does not consist of atoms) but probably has it in mind when he compares himself to an elementary-school teacher who first teaches his students the single letters before proceeding to the study of syllables, words, sentences, and finally works of poetry. His 'letters' are the individual features of the cosmos—such as the signs of the zodiac, their relationships and divisions, the astrological circles, and so on—which only once understood in isolation can be put to use when interpreting astrological *mixtura* (Manilius, as we have seen, never gets to this step). Like Lucretius, Manilius thus implicitly presents the universe as a (poetic) text and, conversely, his text as a small universe.⁴⁰ However, within the cosmology of the *Astronomica*, the

³⁹ See Schindler 2000: 258–60, Gale 2005: 112, and Abry 2006b: 302.

⁴⁰ The metaphor of the universe as a written text (which is not unique to Lucretius and Manilius) is intrinsically connected to the fact that, in both Greek and Latin, the same word (*στοιχείον* and *elementum*) means both 'letter' and 'element'; see the classic

parallel between letters and constituent parts of the cosmos makes considerably more sense than in Lucretius. The Epicurean universe is, after all, a product of mere chance and thus, to apply the metaphor, but a random jumble of letters.⁴¹ It is only the orderly cosmos of Manilius that can actually be read like a book—by all who have gone through the master's school. By picking up the image of the letters from Lucretius, Manilius has beaten his predecessor at one of his own favourite games.

As these selected explorations of Manilian intertextuality have shown, the poet finds himself in a lively dialogue with other authors who came before him. His reactions range from skilful verbal imitation, often with a sophisticated twist, to the combination of multiple intertexts, to covert or indeed open polemics against his models. Especially in the case of those poetic predecessors whose works belong to the same genre or treat similar topics—the stars or natural philosophy in general—Manilius is eager to assert his own independence and to dissociate himself from 'wrong' ways of treating the same subject matter. In doing so, he is writing what has been called 'immanent literary history': he is creating the impression that he is part of an ongoing tradition of didactic poetry (a genre that, as we have seen above, was not actually recognized in contemporary literary criticism)—specifically, didactic poetry about scientific phenomena.⁴² Attempts to position oneself within a genre are crucial to shaping that genre or, in a sense, creating it in the first place: by both imitating and attacking the Aratean tradition as well as Lucretius, Manilius is in effect saying, 'There is a specific kind of writing that both I and these people practise—but where they went wrong, I go right.'

Similar self-positioning vis-à-vis one's predecessors (and thus confirmation of the existence of one's genre) occurs in other Latin didactic poems. For example, Vergil at the end of the second *Georgic* praises

discussions of Diels 1899 and Burkert 1959, as well as Dornseiff 1922: 81–91 specifically on the idea of astronomical/astrological features as 'heavenly writing' (cf. also Hadot 2006: 201–10).

⁴¹ Cf. Kennedy 2000 on the problems Lucretius faces in 'making a text of the universe'. Schindler 2000: 259–60 draws attention to Cic. *Nat. D.* 2.93, where the Stoic Balbus demonstrates the absurdity of the Epicurean doctrine that our world is a random combination of atoms by pointing out the improbability that a heap of letters would result in a meaningful text such as Ennius' *Annals*; see also 6.2 below.

⁴² On immanent literary history, see Schmidt 2001, as well as Hinds 1998: 52–98 and 123–44; on the immanent creation of didactic poetry as a genre, see Gale 2005: 113–14 and Volk 2005*b*.

Lucretius as *felix qui potuit rerum cognoscere causas* ('happy he who was able to understand the causes of nature', 2.490), but then appears to define his own role as the contrasting *fortunatus et ille deos qui nouit agrestis* ('blessed also he who knows the country gods', 493). In the pseudo-Vergilian *Aetna* (written probably in the 60s or 70s AD), the anonymous author delivers a double blow against both Vergil and Manilius, neither of whom has succeeded—or so we must infer—in treating nature adequately in his poem: 'searching for gods while wandering in the reign of Jupiter' (*in Iouis errantem regno perquirere diuos*, *Aetna* 255) is labelled 'madness' (*amentia*, 254), while agriculture is presented as an activity fuelled by petty greed (260–9). Not surprisingly, the 'right' topic for a didactic poem turns out to be volcanism. However, these attempts at carving out a poetic niche on the part of Vergil and the *Aetna* author go beyond most of what we have so far been observing in Manilius in that they involve *explicit* reflections on the poet's own role. It turns out that the *Astronomica*, too, abounds in such instances of poetic self-consciousness (a characteristic of didactic poetry, after all), as we shall see presently.

5.3. TRANSCENDING TRADITION

Simply by engaging, in manifold ways, with his poetic predecessors, Manilius implicitly places himself within a tradition and at the same time contributes to fashioning this tradition, to writing the 'immanent literary history' of the genre of Latin didactic poetry on nature. At the same time, the poet also reflects explicitly on his poetry, his present project, and his position vis-à-vis other poets. This kind of reflection—Manilius' statement of poetics—proceeds at a more abstract, metaphorical, and ideological level and, while being indebted to the metapoetic strategies devised by earlier Roman poets, also ties in, in fundamental ways, with the larger philosophical concerns of the *Astronomica* as a whole.⁴³

Latin writers' reflections on poetics often exhibit an apologetic, even defensive, stance. This phenomenon can be linked to the overwhelming influence on Roman literature of the third-century Alexandrian poet

⁴³ For the following discussion, cf. esp. Volk 2002: 209–24 and 234–45, as well as Lühr 1969: 16–56, Reeh 1973: 7–158, Effe 1977: 106–26, Baldini Moscadi 1986, and the papers collected in Landolfi 2003.

Callimachus, whose programmatic statements in his *Aetia* prologue and similar passages fundamentally shaped the ways in which Latin authors represented themselves. It is important to separate this Roman Callimacheanism from Callimachus' own poetic programme, which is notoriously difficult to assess: the Roman writers had their own concerns and their own creative ways of transforming the rhetorical strategies of their Hellenistic model to fit their purposes, and their poetic ideals can thus by no means necessarily be retrojected onto Callimachus himself.⁴⁴ Callimachean ideas and strategies are ubiquitous in Latin poetry from the first century BC onwards; however, the influence of the formidable Alexandrian is perceptible also in earlier texts (such as the works of Ennius), and if we had more than fragments of the literature of the Middle Republic, perhaps Latin poetry would appear to us to have been thoroughly Callimacheanized from the very beginning.

To give a simplified overview, Callimachus-inspired features of Latin poetic self-representation include, among others, the following.⁴⁵ Often, a poet excuses himself from composing a particular work that—it is implied or has supposedly been claimed by an outside party—would be superior to the one that he is in fact undertaking. In this familiar trope known as the *recusatio*, the poet's failure to attempt the envisaged task is explained variably with his inability, constraining circumstances, or an order from an authority figure, in particular an inspiring god. The last line of argument goes back directly to the *Aetia* prologue, where Callimachus defends himself against his mysterious critics, the Telchines, who berate him for not composing 'one continuous song in many thousand lines about the deeds of kings and the heroes of old' (fr. 1.3–5). The poet responds that size is not a criterion for poetic quality and that, indeed, smaller is often better (fr. 1.7–20). He continues (fr. 1.21–4):⁴⁶

καὶ γὰρ ὅτε πρότιστον ἔμοῖς ἐπὶ δέλτον ἔθηκα
 γούνασιν, Ἀπόλλων εἶπεν ὁ μοι Λύκιος·
 'μέμερό μοι, φίλ' ἀοιδέ, τὸ μὲν θύος ὅττι πάχιστον
 θρέψαι, τὴν Μοῦσαν δ' ὠγαθὲ λεπταλέην.'

⁴⁴ The classic study of Callimachus' influence on Latin poetics remains Wimmel 1960. To read Callimachus himself through the lens of his Roman reception was common scholarly practice for decades; recently, there has been a welcome counter-movement in such works as Cameron 1995*b* and Asper 1997, which examine Callimachus' programmatic statements in their own right.

⁴⁵ For a more extensive list, see Wimmel 1960: 323.

⁴⁶ The text of Callimachus quoted here and below is that of Hopkinson 1988: 15–16.

And when I first put the writing tablet on my knees, Lycian Apollo spoke to me: 'Remember, my dear poet, to raise a sacrificial victim as fat as possible, but, my friend, keep your Muse slender.'

As this scene of divine sanction (famously imitated by Vergil in *Ecl.* 6.3–5) is meant to prove, Callimachus' poetry, though considered inferior by the Telchines, is really superior; likewise, in even the most apologetic Latin *recusationes*, the implication is typically that the chosen type of poem is actually preferable.

Availing themselves of Callimachus' diction, Roman poets developed a vocabulary to describe the kind of poetry they considered desirable. In the *Aetia* prologue-inspired rhetoric of the *recusatio*, the small and refined (*tenuis*, *gracilis*, *deductus*) was a poetic ideal,⁴⁷ as was the novel and untouched. Immediately after his command to keep the Muse slender, Lycian Apollo gave Callimachus the following injunction (fr. 1.25–8):

‘πρὸς δέ σε καὶ τόδ’ ἄνωγα, τὰ μὴ πατέουσιν ἄμαξαι
τὰ στείβειν, ἑτέρων δ’ ἵχνια μὴ καθ’ ὁμὰ
δίφρον ἐλᾶν μηδ’ οἴμον ἀνὰ πλατύν, ἀλλὰ κελεύθους
ἀτρίπτους, εἰ καὶ στενωτέρην ἐλάσεις.’

'In addition I bid you the following: to walk where wagons do not go and to drive your chariot not on the tracks of others or on the wide road, but on untrodden paths, even if you drive more narrowly.'

To present poetic activity as a journey, especially a chariot ride, had been Greek practice for centuries, but it was Callimachus' stress on the necessity to move on 'untrodden paths' that particularly impressed his Roman imitators and made the image a commonplace in Latin poetry.⁴⁸ Another favourite Callimachean metaphor to describe poetic originality as well as sophistication was that of the small, pure, and untouched body of water (see Wimmel 1960: 222–37 and Asper 1997: 109–34). In Callimachus, this is found most prominently in the finale of the *Hymn to Apollo*, where the poet's patron god responds to the criticism of Envy, who does 'not like the singer who does not sing as much as the sea' (106). Apollo provides a detailed comparison of two bodies of water, which stand for two types of poetry: the Assyrian river is great in size but

⁴⁷ Cf. Asper 1997: 135–207 on metaphors of size in Callimachus.

⁴⁸ On poetic journey metaphors, see Nünlist 1998: 228–83 (on Archaic Greek poetry), Asper 1997: 21–107 (on Callimachus), Wimmel 1960: 103–11 (on the Roman Callimacheans), and Volk 2002, Index s.v. 'journey metaphor' (on Latin didactic poetry).

carries much mud (108–9), while a small trickle of water from a pure and unsullied spring is able to delight the goddess Demeter (110–12). In Latin poetry, to give just one example, the untrodden path and untouched fountain are prominently combined in the passage from Lucretius quoted above in 5.2, where the poet expresses his joy at roaming through *auia Pieridum... loca nullius ante | trita solo* ('the pathless realm of the Pierides, never before trodden by any foot', 1.926–7) and at approaching and drinking from *integros... fontis* ('untouched fountains', 1.927).

The so-called *primus* motif—the claim, often expressed in the Callimachean imagery described, of being the first to practise a particular type of poetry—plays an important role in Latin authors' statements of poetics.⁴⁹ It takes on particular resonance in the light of the fact that, in most cases, the writer in question is the very first representative of his genre, but only the first to compose this kind of poetry at Rome, while the real *primus inuentor* is, of course, a Greek. The Latin poet thus somehow has to negotiate between his primacy and his belatedness, a task that different authors deal with in different ways, with one strategy being to align, or even identify, oneself specifically with a particular Greek model. Thus, for example, Vergil in the *Georgics* presents his poem explicitly as an 'Ascrean [i.e., Hesiodic] song' (2.176) and Propertius styles himself a 'Roman Callimachus' (4.1.64).

To return to Manilius, it is obvious that the issue of originality looms large in his metapoetic reflections. As we have seen, he has already described himself in 1.4–5 as the 'first' (*primus*, 4) to move Helicon with 'new songs' (*nouis... cantibus*, 4–5) and appears in 1.6 as *hospita sacra ferens nulli memorata priorum* ('bearing sacred offerings from a foreign land, never mentioned by anyone before'). This last line represents a somewhat coy attempt to tackle the dilemma just mentioned: Manilius acknowledges the Greek origin of his song (cf. *hospita*), while at the same time maintaining his own absolute originality. He repeats this claim at the end of the first proem, where he describes his poem, in similar religious language, as *opus non ullis ante sacratum | carminibus* ('a work not hallowed before by any songs', 1.113–14).⁵⁰

⁴⁹ See Volk 2002: 114, with references in n. 119 and examples in n. 120.

⁵⁰ It is possible to quibble over the meaning and veracity of lines 1.6 and 113–14 (cf. Reeh 1973: 30–7). In proclaiming himself the first poet of his particular subject matter, Manilius obviously eclipses Aratus and his Latin followers, and this has struck some readers as unfair; however, it makes sense, given that these writers treated only astronomy, not astrology. But were there really no astrological poets that Manilius (could have) used

The theme returns and is developed at greater length in the proem to Book 2 (1–149).⁵¹ Manilius begins with an extended narrative of literary history (1–48), appropriately starting with Homer (1–11).⁵² He describes how the Greek poet served as a ‘source’ of poetic inspiration for subsequent authors, who derived their own ‘streams’ from his mighty ‘river’:⁵³

cuiusque ex ore profusus
omnis posteritas latices in carmina duxit
amnemque in tenuis ausa est deducere riuos
unius fecunda bonis. (2.8–11)

all posterity drew for its songs on the water poured forth from his mouth and dared to channel the river into slender streams, fertile because of one man’s bounty.

The water imagery is ‘Callimachean’, as are the buzzwords *tenuis* and *deducere*, with the latter presenting an example of Manilius’ original play

as a source (cf. Abry 2006*b*: 308–11)? All extant (fragments of) Greek astrological poems appear to be later: these include works by Dorotheus of Sidon (see Pingree 1976), Anubio (see Obbink 1999 and 2006), ‘Manetho’, and Maximus (on the last two, see Effé 1977: 126–36, and cf. Gundel and Gundel 1966 on all authors mentioned). However, it is conceivable that there were astrological poems already in the Hellenistic period; intriguingly, part of the work ascribed to Nechepso and Petosiris appears to have been composed in verse (see Abry 2006*b*: 309–10). Still, it apparently did not seem possible to Manilius to present himself as the Roman heir to a particular Greek poet in the ‘Roman Hesiod’-type trope discussed above (of course, such a position of dependence might also not have fitted the poet’s larger strategy of self-representation, on which see immediately below).

⁵¹ On the second proem, see Volk 2002: 212–18 (cf. also Volk 2001 and 2003), as well as Lühr 1969: 26–34 and 43–7, Dams 1970: 20–9, Reeh 1973: 85–104, Baldini Moscadi 1986: 4–19, Landolfi 1991*a*, and Perutelli 2001: 67–76.

⁵² There has been much controversy over whether Manilius’ history concerns all poetry or only didactic; most of the works and authors mentioned can be described as didactic, but Homer and Theocritus present serious difficulties. The problem disappears once we realize that Manilius presents an overview of ‘epic’ in the ancient sense, that is, poetry written in hexameters—which, incidentally, gives us an idea of how the poet may have viewed his own larger generic affiliation (cf. Volk 2002: 64 with n. 74). More difficult is the question whether the catalogue of poets (unidentified except for Homer, Hesiod, and Theocritus) is meant to include Romans as well as Greeks (cf. Perutelli 2001: 72–6). It seems to me that, by ostensibly describing Greek poetry, Manilius implicitly includes the Roman imitators of the individual subgenres. Especially in the case of Hesiod and Theocritus, it has often been noted that the poet’s descriptions sound as though he were in fact talking about Vergil (see, e.g., Landolfi 1991*a*), and as I have argued above (see 2.3 and 5.2), the unnamed astronomical poets appear to include not only Aratus, but also the Latin authors of *Aratea*.

⁵³ The image of Homer as a source of water that feeds all later poetry is traditional; see Williams 1978: 88–9 and 98–9.

with this verb throughout the *Astronomica* (see 5.2 with fn. 26). The passage foregrounds the themes of poetic tradition and dependence, presenting them, however, in a somewhat ambivalent, if not negative, light. While the action of ‘deriving slender streams’ from the Homeric river may seem commendable in terms of the metapoetic vocabulary used, one has to ask oneself whether digging a private channel in order to draw water from a river is not perhaps morally questionable; indeed, whether it does not approach theft.⁵⁴ That the behaviour of the post-Homeric epigones is borderline criminal may be implied by their ‘daring’ (cf. *ausa est*, 2.10), a word often used to describe poetic ambition (for example, of Manilius himself in 3.1 and 5.10) but here perhaps employed with a negative touch (cf. Lühr 1969: 31–2); the idea of improper acquisition of property is further expressed in *unius fecunda bonis* (2.11), which points to the fact that the *bona* enjoyed by later poets really belong to someone else.⁵⁵

Deplorable or not, the subdivision of the river of poetry is a fact of literary history, and Manilius in the following proceeds to fill in the details. He devotes a fair amount of space to Hesiod (2.11–24), the second-best after Homer (*proximus illi*, ‘closest to him’, 11) and—not incidentally, one supposes—the originator of didactic poetry. Manilius then turns to the anonymous astronomical poets (25–38), whose approach to the cosmos, as we have seen, he sharply criticizes. The rest of the survey is taken up by bucolic (39–42), whose founder Theocritus is alluded to as *Sicula . . . tellure creatus* (‘man born on Sicilian earth’, 2.40); poetry about birds and wild animals (43); treatments of poisonous snakes and plants (44–5); and poems about the underworld (*katabasis*-stories?, 46–8). At the end of his catalogue, Manilius sums up:

⁵⁴ In Rome, drawing water from a public river was not a crime, but it was strictly regulated: no action was allowed to be taken that might imperil navigation or lead to a change in the river’s course (see *Dig.* 43.12–13). The technical nature of the metaphor from irrigation makes Manilius’ image quite different from a passage in Ovid that may have served as its model and that uses the more traditional, and more benign, concept of inspiration as drinking from a fountain: *adice Maioniden, a quo ceu fonte perenni | uatum Pieriis ora rigantur aquis* (‘add Homer, by whom as by an eternal fountain the mouths of poets are drenched with the water of the Muses’, *Am.* 3.9.25–6).

⁵⁵ Ellis 1899 points out a striking parallel between the Manilian passage and [Longinus], *Subl.* 13.3, which describes Stesichorus, Archilochus, and Plato as channelling streams from the ‘Homeric spring’ (in 13.4, the author stresses that such a procedure does, however, not constitute ‘theft’, κλοπή; contrast *furtum* in *Astr.* 2.58, on which see below). Ellis suggests that Manilius is dependent on ‘Longinus’ (whose date is unknown; cf. also Goold 1961 and his idea of a ‘Greek professorial circle at Rome’ to which both authors belonged), but admits that it is also possible that the Greek author is imitating the Roman.

omne genus rerum doctae cecinere sorores,
 omnis ad accessus Heliconos semita trita est,
 et iam confusi manant de fontibus amnes
 nec capiunt haustum turbamque ad nota ruentem. (2.49–52)

Every kind of theme the learned sisters have sung, every path that leads to Helicon has been trodden, and the streams flow muddied from the springs and cannot sustain the drinkers and the crowd that rushes towards the well-known.

This description of the poet's own position within literary history is profoundly pessimistic. If in earlier times it was at least possible to draw one's own little poetic stream from the mighty river that ultimately went back to Homer (even though, as we have seen, Manilius may be expressing misgivings about this practice), now each and every topic has already been treated and there remains no possibility of an original work. The situation depicted is a perversion of the Callimachean ideal: the paths to Helicon are positively trampled (50), the water muddied and thronged by people who want to drink from it (51–2). Everything is already known (cf. *nota*, 52). What is a poet to do?

To a certain extent, Manilius' lament is an instance of a well-known topos found as early as Choerilus of Samos (late 5th c. BC; see *SH* 317) and employed, for example, in the proem to Vergil's third *Georgic*, where the poet complains that *omnia iam uulgata* ('all (poetic topics) have already been made public', 3.4). At the same time, Manilius' drastic depiction of a moment where originality has become impossible and literary history as we know it has come to an end may also reflect Manilius' historical situation as a late-Augustan poet who has to realize that the classical age of Latin literature (with its rediscovery and recreation of Greek genres) is over and that he has, as it were, arrived too late. But Manilius' especially radical formulation of the trope also corresponds to his radical solution to the problem of poetic belatedness. Obviously, the *omnia iam uulgata*-topos represents a kind of less-than-apologetic *recusatio*, in which a poet rejects certain types of poetic topics (those that are already hackneyed) while ultimately choosing his own, original, one (which miraculously turns out not to have been treated before).⁵⁶ Manilius, by contrast, rejects not only particular topics but the whole poetic tradition that preceded him and that he describes in his

⁵⁶ E.g., in Vergil, the poet's conclusion that certain mythological subjects are already well known (*G.* 3.3–8) leads to his planning a future, highly original poem about the achievements of Octavian (8–48).

literary history.⁵⁷ His own poetic originality will be fundamentally different from that of other poets—and thus fundamentally more original.

In the lines that follow his bleak picture of the literary scene, Manilius goes on his own search for a novel type of poetry:

integra quaeramus rorantis prata per herbas
undamque occultis meditantem murmur in antris,
quam neque durato gustarint ore uolucres,
ipse nec aetherio Phoebus libauerit igni. (2.53–6)

Let us seek untouched meadows with dewy grass and water intent on murmuring in hidden caves, which neither birds have tasted with hard beak nor Phoebus drunk with heavenly fire.

Again, he uses the well-known Callimachean path- and water-metaphors to describe his ideal: the meadows are supposed to be untouched or not walked-on (53) and the spring is imagined as immaculate to an unparalleled degree, hidden away in a dark cave, undisturbed by birds, and not ever touched by sunlight. This fountain is a far cry from the ‘poured-forth waters’ (cf. *profusus* . . . *latices*, 8–9) of the Homeric stream that irrigated so many poems in the course of history; it is even further removed from the sullied poetic river of the present day. Manilius is aiming for a kind of poetry that is his and his alone.

This claim to absolute originality—that is, originality divorced entirely from the poetic tradition—is made explicit in the next few lines:

nostra loquar, nulli uatum debebimus ora,
nec furtum sed opus ueniet, soloque uolamus
in caelum curru, propria rate pellimus undas. (2.57–9)

I shall speak my own words, I shall owe my utterances to none of the poets; not a theft is coming, but my own work; and I fly into heaven alone in my chariot and push through the waves with my own ship.

Manilius maintains that he is entirely independent of the work of other poets, a claim remarkable in view of his own practice (as we have seen above in 5.2, he, like all ancient poets, is in fact greatly influenced by his models) and especially of his contention, implied by the catalogue of

⁵⁷ As Landolfi 1991a points out, the catalogue of poets at the beginning of *Astronomica* 2 thus serves a function entirely different from that of similar lists in other poets: while, e.g., Propertius and Ovid enumerate their poetic predecessors in order to align themselves with a tradition (see, e.g., Prop. 2.34.85–94 and Ov. *Am.* 1.15.9–42), Manilius does so in order to dissociate himself from it.

poets of 2.1–48, that, up to this point, literary history has indeed been a matter of intertextuality. No more: Manilius himself will be the first poet not to steal (cf. *furtum*, 2.58)—as, he hinted, those post-Homeric channel-diggers did—but to create his own work.⁵⁸ In doing so, he will be singularly able to fulfil the Callimachean injunction to drive a solitary chariot (2.58–9) or to steer his own and lonely ship (2.59; the nautical metaphor for poetic composition is likewise dear to Latin authors). The image of the chariot is taken up again in a kind of ring composition at the end of the proem, where the poet proudly declares:⁵⁹

nec in turba nec turbae carmina condam,
sed solus uacuo ueluti uectatus in orbe
liber agam currus non occursantibus ullis
nec per iter socios commune regentibus actus. (2.137–40)⁶⁰

I shall compose my songs neither in the crowd nor for the crowd, but alone—as one carried in an empty orbit—I shall freely drive my chariot with no one meeting me or steering a friendly course along the same route.

In using the very kind of Callimachean rhetoric employed by his predecessors, the poet expresses that he has in fact far transcended them.

But how is it possible for Manilius to opt out of literary history as he does? Is his aspiration to absolute novelty not simply a mannered and forced further development of the *primus* motif, devised by a post-classical poet who feels the need to lay it on thicker than his forebears? Perhaps in a way it is, but note that Manilius serves up his claim to originality with a twist. The way he does it indeed takes him well beyond the metapoetic strategies found in earlier Latin poets.

Between the two self-referential chariot images (2.58–9 and 137–40), Manilius provides a description of his subject matter, the workings of the divine cosmos. This passage is introduced with *namque canam* ('for I will sing', 60), and the causal conjunction *nam* raises the expectation

⁵⁸ As Perutelli 2001: 74–6 points out, *furtum* is a technical term of ancient literary criticism that appears especially in anti-Vergilian polemics; he suggests that the use of the expression by Manilius reflects the incipient Vergilian scholarship of his age, as well as the poet's wish to dissociate himself from the practice of his predecessor.

⁵⁹ On the interpretation of this passage, see Volk 2003.

⁶⁰ Manilius' peculiar insistence that on his route he will be neither accompanied nor met by other vehicles may go back to another famous instance of the path metaphor in Callimachus, *Epigram* 28 Pfeiffer, where the poet declares: 'I do not rejoice in the road that leads many this way and that way' (*ὁδὲ καὶ ὁδὲ*, 2). For an astronomical explanation of the missing two-way traffic, see Volk 2003: 631–2.

that what follows will explain why the poet's work is so unusual and does not constitute a theft from any other poet. And, indeed, proving this is a major function of the section, though Manilius goes about it in a roundabout, positively sly manner. Ostensibly no longer talking about himself and his poetic ambitions, he first describes how god is present within the cosmos, permeating and ruling all its parts (2.60–6), with this universal interconnectedness enabling the orderly working of all natural phenomena (67–81). In particular, the immanent *deus et ratio* (82) governs everything that happens on earth by means of the signs of the zodiac (82–6). Manilius has thus defined his topic as astrology, whose validity he goes on to bolster by drawing a parallel to the undisputed influences on terrestrial matters of the Sun and the Moon (87–104). However, he then changes tack and concentrates his argument in favour of astrology on the innate ability of human beings to understand the working of the heavens. The divine cosmos itself inspires, positively invites, man—who is both godlike and a microcosm in his own right—to enquire into the mechanism of the universe:

quis caelum posset nisi caeli munere nosse,
 et reperire deum, nisi qui pars ipse deorum est?
 quisue hanc conuexi molem sine fine patentis
 signorumque choros ac mundi flammea tecta,
 aeternum et stellis aduersus sidera bellum
 ac terras caeloque fretum subiectaque utrisque
 cernere et angusto sub pectore claudere posset,
 ni sanctos animis oculos natura dedisset
 cognatamque sibi mentem uertisset ad ipsam
 et tantum dictasset opus, caeloque ueniret
 quod uocat in caelum sacra ad commercia rerum? (2.115–25)

Who would be able to understand the cosmos unless through the gift of the cosmos or to find god unless he had a place among the gods himself? Or who could see and encompass in his narrow chest the mass of the infinitely vaulted sphere, the dances of the stars, the flaming roofs of the universe, and the eternal war of planets against constellations, and the land and sea beneath the sky and what is beneath both, unless nature had given sacred eyes to the soul and turned the kindred mind towards herself and dictated such a great work, and unless there came from heaven something to call us into heaven for a sacred exchange of things?

Manilius is here speaking of the capacities of mankind in general (see also 2.105–8): we are all able, and called upon, to investigate the kindred cosmos. At the same time, it would seem that the poet has

surreptitiously returned to the topic of his own role. Even though the god is said to wish to reveal himself to human beings in general, we are probably to understand that he is inspiring the poet in particular and charging him with the task of treating his cosmic workings in the poem. This may be implied by the phrase *tantum dictasset opus* ('would have dictated such a great work', 124), which is difficult but can be taken as referring to Manilius' own work (see Volk 2002: 216–17). That the poet is indeed viewing himself as the chosen medium for the self-revelation of the cosmos is clear already from the proem to Book 1, where Manilius maintains,

iam propiusque fauet mundus scrutantibus ipsum
et cupit aetherios per carmina pandere census. (1.11–12)

Now the universe is more favourably inclined to those researching it and desires to reveal its heavenly riches by means of song.

It is obvious in context that the *carmina* through which the *mundus* desires to make its riches known are the songs of Manilius himself. Similarly, at the end of the second proem, when the poet concludes his announcement of topic, he describes himself as divinely inspired: *haec ego diuino cupiam cum ad sidera flatu | ferre* ('as I desire to carry these things to the stars with inspired breath', 2.136–7). During his solitary poetic chariot ride, he sings for an audience of the sky and the stars, acting, as he proudly declares, as the designated poet of the cosmos, which takes joy in his songs:

sed caelo noscenda canam, mirantibus astris
et gaudente sui mundo per carmina uatis. (2.141–2)

I shall sing for the sky to hear, with the stars marvelling and heaven taking joy in the songs of its poet.

Manilius' method of poetic self-representation in the proem to Book 2 thus turns out to be sophisticated and complex. In the catalogue of poets, lament of the post-classical latecomer, and subsequent successful search for an 'untouched meadow' and 'hidden spring', Manilius employs the Callimachean rhetoric of his predecessors, albeit with a certain degree of hyperbole and a perhaps unparalleled ambition: while all poetry at this point is utterly tainted, his must be completely pure and independent. His means of achieving this goal, however, entails a wholesale shift of strategy, as he presents his poetic originality as ensured no longer by any particular talents, efforts, or choices on his own part, but by the voluntary self-revelation of the universe, which has purportedly

made Manilius the medium for disclosing its workings. His poem is thus part of a divine plan—indeed, we may surmise, of the unbroken chain of astrological fate—which gives it a status that far transcends that of ordinary poetic works.⁶¹ By this move, Manilius has cleverly placed himself outside the competition: tellingly, his Callimachean chariot ride takes him away from earth into the sky itself, where his is indeed the only poetic vehicle (2.58–9 and 138–40). His originality is no longer a question of poetics; it has become a matter of cosmology.

Manilius develops the notion of his poem's fatedness further in other programmatic passages. The proem to Book 3 begins with yet more instances of the *primus* motif as the poet, 'rising to new themes' (*in noua surgentem*, 3.1) and 'not afraid to walk through untrodden glades' (*nec per inaccessos metuentem uadere saltus*, 3.2) undertakes to 'extend the realms of the Muses' (*uestros* [sc. *Pieridum*] *extendere fines*, 3.3).⁶² In what appears at first sight to be a standard *recusatio*, he rejects a whole list of topics he is not going to treat (5–26). These include such epic and tragic subjects as the Titanomachy, the Trojan War, the myth of Medea, the Messenian Wars, the story of the Seven against Thebes, the Oedipus myth, the Banquet of Thyestes, the Persian Wars, the history of Alexander the Great, and finally the 'origin of the Roman people' (*Romanae gentis origo*, 3.23).⁶³ The reader expects this catalogue to be a straightforward instance of the *omnia iam uulgata*-topos: after all, these topics have really been treated to death, and we already know how much Manilius prizes his own originality. However, the poet once again surprises us when he states his reason for rejecting the subjects:

facile est uentis dare uela secundis
fecundumque solum uarias agitare per artes

⁶¹ A sense that the poem's composition is astrologically fated and brought about by a particular alignment of heavenly bodies may perhaps be gleaned from Manilius' claim that 'now [*iam*] the universe is more favourably inclined to those researching it and desires to reveal its heavenly riches by means of song' (1.11–12); cf. Volk 2002: 217 n. 38. It is also attractive to think that Manilius is predestined by his horoscope for his role as *uates mundi*. As explained in 4.152–61, Gemini brings forth both poets and astronomers; a central role for this sign in the poet's own birth chart suggests itself (see Volk 2002: 219–20, as well as 3.4, fn. 109 above).

⁶² On the third proem, see Volk 2002: 214–15 and 241–2, as well as Lühr 1969: 34–8, Dams 1970: 29–34, Baldini Moscadi 1986: 19–22, Landolfi 1990 [2000], and Perutelli 2001: 76–84.

⁶³ This has often been taken as an allusion specifically to the *Aeneid*, but the following description (3.24–5) does not in fact fit Vergil's poem particularly well. Manilius probably has in mind the entire tradition of Latin poetry on topics of national history, from Ennius' *Annals* onwards (cf. Feraboli, Flores, and Scarcia 1996–2001 *ad loc.*)

auroque atque ebori decus addere, cum rudis ipsa
 materies niteat. speciosis condere rebus
 carmina uulgatum est, opus et componere simplex. (3.26–30)

It is easy to set sail in favourable winds, to work fertile soil with various arts, and to add splendour to gold and ivory, where the raw material itself is shining. It is trite to compose a song about an attractive topic and create a straightforward work.

Given the inherently attractive nature of the themes on Manilius' list, writing poetry about them is far too easy. The same cannot be said for the poet's own project:

at mihi per numeros ignotaque nomina rerum
 temporaque et uarios casus momentaque mundi
 signorumque uices partesque in partibus ipsis
 luctandum est. quae nosse nimis, quid, dicere quantum est?
 carmine quid proprio? pedibus quid iungere certis?
 huc ades, o quicumque meis aduertere coeptis
 aurem oculosque potes, ueras et percipe uoces,
 impendas animum; nec dulcia carmina quaeras:
 ornari res ipsa negat contenta doceri. (3.31–9)

But I must struggle with unknown numbers and names of things, with instances of time, changing fortunes, and the movements of the heavens, with the interactions of the signs and the degrees within their degrees themselves. How difficult is it to express what is already too difficult to understand? And in a fitting song? And to join it with the right metre? Come here, whoever is able to direct ear and eyes to my undertaking, and hear true utterances. Concentrate your mind; do not ask for sweet songs: the subject matter itself, allowing itself to be taught, refuses to be adorned.

Faced with the technical difficulties of his subject matter, which unlike the *speciosae res* (cf. 3.29) of epic and tragedy 'refuses to be adorned' (39), Manilius warns his student not to expect 'sweet songs' (38). It is, after all, difficult enough for the poet to understand the astrological details of his work and to express them in metre (34–5).

Manilius' line of argument in the proem is somewhat puzzling. If it is so pleasant to write about myth and history and such a struggle to compose a poem about astrology, why indeed choose the latter? There is some sense that the easy topics have by now been treated a bit too often (cf. *uulgatum*, 3.30, with clear reference to Verg. *G.* 3.4), but this does not appear to be the main reason for Manilius' choice. In fact, it seems that he does not have a choice: as he says, he 'must struggle' (*at mihi . . . luctandum est*, 31–4) with the nitty-gritty details of astrology. This sense

that the poet is forced to treat his particular topic (and that he has to live with the consequences) also appears at other points in the *Astronomica*.

As we have seen in 3.4, Manilius' discussion of the *partes damnandae* in Book 4 presents a particular poetic feat, as the author succeeds in finding a variety of original ways to fit an extensive list of numbers into Latin hexameters. Manilius prefaces this section with a *captatio benevolentiae*, in which he stresses the difficulty of the undertaking (4.431–5) and expresses his fear that 'charm will be lacking' (*gratia derit*, 4.434; cf. *nec dulcia carmina quaeras*, 3.38) from his composition. However, there is no point in complaining:

sed mihi per carmen fatalia iura ferenti
et sacros caeli motus ad iussa loquendum est,
nec fingenda datur, tantum monstranda figura. (4.436–8)

But I, who express the laws of fate and the sacred motions of heaven in song, must speak as ordered and am not allowed to invent, but only show, the pattern.

Similarly to his rhetoric in the proem to Book 3, Manilius introduces his own role with *sed mihi* (4.436; cf. *at mihi*, 3.31) at the beginning of the line and an impersonal passive periphrastic construction (*loquendum est*, 4.437; cf. *luctandum est*, 3.34) expressive of the necessity experienced by the poet. As he makes clear, this necessity arises from 'orders' (cf. *ad iussa*, 4.437)—orders that, we have to understand, are those of the divine universe itself, the entity that 'commissioned' Manilius' poem in the first place.

In the proem to Book 2, the conceit that the cosmos has chosen the poet as *uates mundi* had enabled Manilius to claim absolute originality in terms of his subject matter and to beat his poetic competitors at their own Callimachean game. In the proem to Book 3 and the introduction to the *partes damnandae*, the poet uses the same conceit in an apology for the rough and technical nature of his style. Since he is following the orders of his subject matter, the divine universe itself, he has to stick to the truthful representation of all the complicated details of the cosmos, whether this results in beautiful poetry or not.⁶⁴ His excuse for

⁶⁴ The idea of the orders of the cosmos is found also in the proem to Book 5. Manilius declares that another poet would have finished his work at this point (5.1–7) but that he is continuing and treating the paranatellonta, since 'the cosmos orders me to hasten my journey around all the stars' (*me properare uiam mundus iubet omnia circum | sidera*, 5.8–9). Note that the manuscripts also read *iussus* in the following line (*aetherios iussus*

any less-than-attractive feature: *hoc operis, non uatis erit* ('this will be due to the work, not the poet', 3.41).⁶⁵

For all the traditional trappings of Manilius' poetics, his underlying idea of being called to be the medium of cosmic self-revelation presents a radical departure from the programmatic statements of earlier poets. One of the results of this notion is what I would call the 'sacralization' of poetry, that is, the presentation, throughout the *Astronomica*, of the poet's activity and of his work in religious, positively spiritual, terms. The association of poet and priest/prophet is, of course, traditional and had become especially popular among the Augustan poets, who liked to style themselves as *uates* (see Newman 1967, with 115–22 on Manilius). Manilius follows in the same tradition when he depicts himself as 'bearing sacred offerings' (1.6) and officiating at the altars of song and subject matter (1.20–2).⁶⁶ However, given that the poet's topic consists in 'divine arts' (1.1) granted to mankind as a 'gift from the gods' (1.26) and that—as Manilius never tires of assuring us (see also 6.1 below)—understanding these arts leads to a kind of deification, a mystical union with the divine (see esp. 2.123–5, 4.387–407), there is clearly more to the poet's religious stance than a dead metaphor. As the inspired *uates mundi*, Manilius himself experiences a certain ecstasy, as is apparent in the description of his double duty at the two altars:

bina mihi positis lucent altaria flammis,
ad duo templa precor duplici circumdatus aestu
carminis et rerum: certa cum lege canentem
mundus et immenso uatem circumstrepit orbe. (1.20–3)

Twin altars burn for me with lit flames; I pray at two temples, inspired by a double passion, for my song and for my subject matter. The universe resounds with its immense sphere around the poet who sings to a fixed measure.

As the revolving cosmos 'resounds' (*circumstrepit*, 23) around the poet, he finds himself 'surrounded' (*circumdatus*, 21) by this 'swelling motion' (*aestu*, *ibid.*), which transforms itself into heated love (another sense of *aestus*) for his task. What Manilius describes is an intensely spiritual

consendere cursus, 'I having been ordered to mount the heavenly chariot'); however, I would join Fels 1990, Liuzzi 1991–7, and Goold 1992 and 1998 in following Housman 1901: 162 and 1903–30, who emends to *ausus* ('having dared'), which avoids repetition and adds a further nuance to the text.

⁶⁵ The quotation concerns specifically the use of Greek loanwords but is expressive of Manilius' apologetic stance in general.

⁶⁶ He refers to himself as *uates* at 1.23, 2.142, 3.41, and 4.121, all four times in programmatic passages (for the fourth, not discussed in this book, see Volk 2004).

moment of inspiration, when the *uates* is seized by poetic passion in a direct encounter with the god he is worshipping.⁶⁷

Another expression of the poet's elation is his repeated figurative journey through the heavens (see 1.13–15; 2.58–9, 138–40; 4.119–21; 5.8–11, and fn. 48 above). As we have seen, this motif—especially in its manifestation as the poetic chariot ride—owes much to the Callimachean path imagery so dear to Latin poets. However, the idea of an ascent to the upper reaches of the universe (often associated with the divine) is also a cross-culturally common religious trope, and in the *Astronomica*, the image of the poet's physical movement among the stars implies a spiritual closeness, indeed, a kind of interaction between *uates* and *mundus*. Manilius describes his heavenly journey as pleasing (cf. the repeated *iuuat* in 1.13 and 17); he depicts himself as singing to the well-disposed stars and sky (2.141–2); and he generally maintains that some force 'comes from heaven to call us into heaven for a sacred exchange of things' (*caeloque ueniret | quod uocat in caelum sacra ad commercia rerum*, 2.124–5). Clearly, by travelling through heaven, Manilius is participating in such *sacra commercia*.

As a *uates* privy to the secrets of the universe and entrusted with revealing them, Manilius must do his best to pass on his knowledge to his student. As we have seen in 5.1, the poet's didactic stance provides the rhetorical structure for the *Astronomica* as a whole—like all didactic poems, it is a teaching speech addressed to the student—and pedagogical concerns, such as the need to encourage and not overwhelm, play a considerable part in Manilius' rhetoric. Given, though, that the topic of the poet's teaching is not any theoretical field or practical skill, but a sacred, and hitherto secret, body of knowledge, pedagogy in the *Astronomica* often takes the form of initiation (cf. Calcante 2002). In the two exhortations addressed to the student in Book 4 (390–407 and 873–935), Manilius assures his doubtful addressee that man, *qua* microcosm, is called upon to understand the macrocosm (this is the same argument that has already been employed in 2.105–25, as we have just seen) and that the envisaged aim of study is for the student to transcend his human nature and, in contemplating the divine universe, become a god himself:

quod quaeris, deus est: conaris scandere caelum
fataque fatali genitus cognoscere lege

⁶⁷ I return to this passage below. For a different metaphor of inspiration (breath, not fire), see *diuino . . . flatu* (2.136), discussed above.

et transire tuum pectus mundoque potiri.

quid caelo dabimus? quantum est, quo ueneat omne?

impendendus homo est, deus esse ut possit in ipso. (4.390–2 and 406–7)

What you are looking for is god: you are attempting to scale heaven and, born by the law of fate, to know the fates and to transcend your mind and gain possession of the universe. . . . What shall we accord the sky? For how much is the all being offered? Man must give up himself, so that god can dwell in him.

As already briefly hinted above (see 5.1 with fn. 11), the reassuring optimism that all humans—and thus the student as well—can, with the necessary effort, understand the cosmic workings and thus Manilius' poem is somewhat undermined by the conflicting notion, inherent in the idea of initiation, that knowledge is reserved for the happy few (cf. Volk 2002: 202–8). This idea is apparent in the description of the poet's lonely chariot ride at the end of the second proem, where Manilius declares that he will compose his songs not only 'not in a crowd' (*nec in turba*, 2.137)—that is, the multitude of other poets—but also 'not for a crowd' (*nec turbae*, *ibid.*)—that is, a mass audience. After stressing his solitude and the emptiness of his celestial route (2.138–40), he depicts himself as singing to the sky and stars (2.141–2)—as well as

quibus illa sacros non inuidere meatus

notitiamque sui, minima est quae turba per orbem. (2.143–4)

to those whom they have not begrudged (knowledge of) their sacred motions and of themselves, which is the smallest crowd on earth.

His envisaged students are a restricted group that consists only of those to whom the universe grants knowledge of itself, a knowledge that is again decried as 'sacred' (cf. *sacros . . . meatus*, 2.143⁶⁸). In the following lines, Manilius contrasts these initiates into the secrets of the cosmos with the far greater crowd of people who are attracted by wealth, power, and luxury (2.145–8); he concludes: 'this itself is part of fate: to learn the law of fate' (*hoc quoque fatorum est, legem perdiscere fati*, 2.148).⁶⁹

Both Manilius' activity as a poet and his relationship to his student are determined by the fateful workings of the divine universe and hence

⁶⁸ For the interpretation of this phrase, see Volk 2002: 234 n. 74, and 6.2, fn. 37 below.

⁶⁹ That Manilius considers the number of his students to be restricted is clear also from the exhortation in the third proem, *huc ades, o quicumque meis aduertere coeptis | aurem oculosque potes* ('come here, whoever is able to direct ear and eyes to my undertaking', 3.36–7)—apparently, not everybody is able to make the grade.

appear in a religious and mystical light. The same sacralization extends to the poem itself, which as a medium of cosmic revelation attains the status of a sacred entity, an *opus . . . sacratum* ('hallowed work', 1.113). As the poet's worship at the twin altars of song and subject matter (1.20–2) shows, not only is the *carmen* an object of veneration, but it is also closely aligned with its own *res*: its content, which is, at the same time, its inspiration. Throughout the *Astronomica*, we are given to understand that, just as man is a microcosm of the macrocosm, and events on earth are generally a mirror image of what is happening in the heavens, the structure of the poem, too, is the equivalent of the cosmic superstructure it describes.⁷⁰ We have already seen in 5.2 how the pedagogical simile of the children who learn to read hints at a fundamental similarity between Manilius' poem (consisting of letters) and the universe (consisting of 'elementary' astrological features). At many points throughout the poem, ambivalent diction leaves it unclear whether the poet is talking about his own work or about the cosmos, or it at least evokes the parallelism between the two. A striking example occurs early on, in the already much-referred-to two-altars passage.⁷¹ As we have seen, the *mundus* is described as revolving around its *uates*:

certa cum lege canentem
mundus et immenso uatem circumstrepit orbe. (1.22–3)

I rendered this above as 'the universe resounds with its immense sphere around the poet who sings to a fixed measure', but such a translation does away with the inherent ambiguity of *certa cum lege* (1.22). While it certainly makes sense to take the phrase as referring to the metrical singing of the poet,⁷² it can also be understood as modifying the sound of the universe (thus Wilson 1985: 294). Scholars have taken *circumstrepit* as an allusion to the notion of the music of the spheres, the idea (perhaps originally Pythagorean and attested, e.g., in Pl. *Resp.* 10.617b4–7 and Cic. *Rep.* 6.18–19) that the revolutions of the planets around the earth produce a harmonious sound.⁷³ Obviously, such a celestial song would be characterized by a *certa lex*, both in terms of its

⁷⁰ Cf. Volk 2002: 234–40; generally on the idea of the universe as poem, see Hadot 2006: 201–10.

⁷¹ For others, see Volk 2002: 234–40, and see 2.3 with fn. 39 on *Astr.* 1.147–8.

⁷² See van Wageningen 1921 *ad loc.*, Liuzzi 1991–7 *ad loc.*, Fels 1990, Goold 1992, and Feraboli, Flores, and Scarcia 1996–2001.

⁷³ See van Wageningen 1921 *ad loc.*, Schrijvers 1983: 148–50, Wilson 1985: 293–4, and Liuzzi 1991–7 *ad loc.* Generally on the concept of the sound of the stars in antiquity, see Radici Colace 1995.

origin in the orderly motion of the heavenly bodies and in terms of its musicality. I have suggested taking *certa cum lege ἀπὸ κοίνοῦ*, that is, as referring to both the universe and the poet:⁷⁴ ultimately, the fixed measure of the song of the *mundus* is that of the song of its *uates*. Manilius' poem, with its inherent order and beauty, is the ideal representation of the orderly and beautiful cosmos.

We have seen in this section how Manilius' poetics is dominated by one central conceit: the idea that his poetry is fated, and that he has been chosen to be the *uates mundi*, the medium of cosmic revelation. This drastic move enables him to transcend the traditional rhetoric of Latin poetic self-representation. Adopting his predecessors' Callimachean diction, he takes it to extremes, claiming for himself the absolute originality encapsulated in the images of the completely hidden fountain and the empty chariot track far removed from human traffic. As the participant in a 'sacred exchange' with the universe and the mediator between the cosmos and those allowed to be initiated into its secrets, the poet enjoys an exalted position, which he describes in religious, sometimes ecstatic, terms. Given that his poem is, as it were, dictated by the heavens, it, too, appears as an elevated, positively sacred, entity, a microcosm mirroring the macrocosm. The latter notion is one that Manilius twists differently at different points, depending on his argumentative strategy at the moment. On the one hand, the poem's resemblance to the universe that is its subject matter means that it is an object of order and beauty, a veritable echo of the music of the spheres; on the other hand, it may well be lacking in appeal owing to the recalcitrant nature of this very same subject matter, which the poet—following orders—simply must reproduce according to the truth.⁷⁵

Manilius' self-representation as a poet is thus deeply bound up with his cosmology as he describes his artistic actions and choices as part of a far larger process. In the following chapter, we shall explore further the poet's ideas about the workings of the universe and attempt to assess them in the light of the philosophical notions of his time. This discussion will revisit many of the issues encountered earlier in the book and should, with any luck, provide, finally, a coherent picture of Manilius' world view.

⁷⁴ See Volk 2002: 235–6 and cf. already Schrijvers 1983: 150 and now Habinek 2005: 92.

⁷⁵ Cf. Abry 2006b: 301–2, who points to Manilius' repeated use of *reddere* and *referre* to describe his own activity: the poet in his work merely 'renders' the reality of the universe.

Chapter 6

Making Sense of the World

Over the course of the previous chapters, it has become clear that there is something like a larger philosophy—a view of how the world works and of man's place in it—that underlies Manilius' astronomy, astrology, politics, and poetics and informs his shaping of these more specific themes throughout the *Astronomica*. Many details of this world view have already been touched on, but it is now time to connect the dots and present as coherent a picture as possible, as well as to determine where Manilius' ideas come from and how they fit in with the intellectual interests and modes of thought prevalent in the poet's time. Unlike in the case of astrology, where basically all earlier and contemporary sources are lost and Manilius' views can be assessed only through comparison to those of later writers, we have a wealth of information about many of the philosophical and more mystical movements that could have influenced the poet, and the question of his sources thus imposes itself more urgently than in the examination of any other aspect of the *Astronomica*.¹ Without giving up my largely agnostic attitude to *Quellenforschung* (see my remarks in 1.2 above), I shall not refrain from some speculations on this matter in the following discussion, which—owing to the exigencies of the topic—is structured somewhat differently from the preceding chapters. Thus, I first outline Manilius' own world view (6.1), before moving on to a detailed treatment of the poet's intellectual background and the possible philosophical and similar

¹ Note that, in this chapter, I generally refer to Manilius' 'world view', 'cosmology', or 'philosophy' to designate a set of interrelated ideas about the basic structure of the world and man's place in it. Most of Manilius' concerns are what we might call 'philosophical' in the strict sense, that is, of the kind discussed in contemporary philosophical schools and traditions (e.g., Stoicism), while certain others are more at home in intellectual movements that we might call 'mystical' or even 'religious' (e.g., Hermetism). However, given Manilius' eclecticism and the syncretism prevalent in his culture, these terms offer little more than rough means of categorizing (perhaps not all that) different modes of thought, and while I shall in what follows occasionally make such a distinction, I shall not insist on any strict division between these two ways of making sense of the world.

influences on the *Astronomica* (6.2).² Finally, starting from a discussion of Manilius' determinism as found especially in the fourth proem, I draw attention to some of the contradictions and inherent tensions that arise from the *Astronomica's* view of the world (6.3).

6.1. MAN AND THE COSMIC GOD

The basic tenet of what we might call Manilius' natural philosophy is the idea that the universe is divine or, indeed, a god.³ The poet does not simply state this as a fact but endeavours to make a case for it in an extended digression in Book 1 (474–531), where he employs a trope commonly known as the 'argument from design'.⁴ The observation that the movement of the heavenly bodies is perfectly regular and unchanging suggests to the viewer that the world, so clearly a *kosmos*, simply cannot be the product of chance:

ac mihi tam praesens ratio non ulla uidetur,
qua pateat mundum diuino numine uerti
atque ipsum esse deum. (1.483–5)

No other reason seems equally compelling to me as proof that the universe is ruled by a divine being and is itself a god.

As we saw in the previous chapter, Manilius is here specifically attacking the Epicurean philosophy of Lucretius, which held that the atoms that make up the world have indeed come together at random. In arguing against this in his eyes absurd claim, Manilius provides a long description of the regularity of the heavens; he concludes by reiterating that this well-designed whole 'is not the work of chance, but the orderly arrangement of a great divinity' (*non casus opus est, magni sed numinis ordo*, 1.531).⁵

² This procedure entails adopting a deliberately naive attitude in the first section of the chapter, where my purpose is to present Manilius' philosophy as such, without as yet giving any indication as to its possible origin.

³ On Manilius' world view see Lühr 1969, Reeh 1973, and Salemme 2000: 27–45; cf. also MacGregor 2004. Generally on the philosophical and especially religious underpinnings of ancient astrology, cf. Cumont 1912.

⁴ Housman judged this passage Manilius' 'best poetry', maintaining that the poet 'has nothing else so good, and little that is nearly so good' (Letter to Robert Bridges, 25 Sept. 1924; Burnett 2007: 1.572).

⁵ Another instance of the argument from design, this time *ex negativo* ('if there were no divine force in the universe, there would be no cosmic order'), is found in 2.67–78.

From these quotations, it is already clear that there is a certain elasticity to Manilius' concept of the divinity of the universe (compare my remarks in 2.3 above). Is the world simply ruled by a *diuinum numen* (cf. 1.484) or is it a *deus* (cf. 1.485) itself—and what, if any, would be the difference? The ambiguity is brought out perfectly by Manilius' designation of the world as *magni . . . numinis ordo* (1.531). This phrase could mean 'orderly arrangement of a great divinity' in the sense of 'an object that has been arranged in an orderly fashion by a great divinity' (god *acts as* 'arranger, orderer' of the world); however, it can also be understood as 'a great divinity that finds itself in an orderly arrangement' (god *is* the 'arranged, ordered' world).

If we take into account other passages from the *Astronomica*, we find that god, even when not explicitly identified with the cosmos, is repeatedly described as being physically part of it, positively 'blended' with it. Thus, in the following passage, Manilius, in speaking of a divine breath or soul (*uis animae diuina*, 1.250) that pervades the physical universe and ensures the order and interaction of its parts, also refers to it as 'god' (*deus*, 1.251):

hoc opus immensi constructum corpore mundi
 membraeque naturae diuersa condita forma
 aeris atque ignis, terrae pelagique iacentis,
 uis animae diuina regit, sacroque meatu
 conspirat deus et tacita ratione gubernat,
 mutuaeque in cunctas dispensat foedera partes,
 altera ut alterius uires faciatque feratque
 summaque per uarias maneat cognata figuras. (1.247–54)

This construct constituted by the body of the immense universe, and its members formed by the diverse elements of nature—air and fire, earth and stretched-out sea—a force of divine spirit rules it, and god inspires it with sacred motion and directs it with silent reason and dispenses laws of interaction to every part, so that each may affect and be affected by the powers of the other, and the whole may remain interconnected through various appearances.

Similarly, at 2.60–2, god is literally described as 'poured into' the world:

namque canam tacita naturae mente potentem
 infusumque deum caelo terrisque fretoque
 ingentem aequali moderantem foedere molem.

I will sing of god who silently rules nature and is poured into the sky and lands and sea and governs the enormous mass with equal rule.

And again, just a couple of lines later, Manilius refers to one single—no doubt divine—breath or spirit that pervades and governs the entire universe, which is here explicitly pictured as an *animal* ('breathing being, being with a soul/vital principle'):

cum spiritus unus
per cunctas habitet partes atque irriget orbem
omnia peruolitans corpusque animale figuret. (2.64–6)

while one spirit lives through all parts and, pervading everything, nourishes the world and shapes its ensouled body.

In addition to being pictured as the world's soul or breath, god is also identified or closely associated with a principle of cosmic intelligence, termed *ratio* ('reason'). In 1.251, quoted above, 'god' not only 'breathes' through the physical world but also rules everything 'by means of silent reason' (*tacita ratione*),⁶ while in 2.64, immediately before the above-quoted reference to the divine *spiritus*, the whole world is said to be 'driven by the movement of reason' (*rationis agi motu*; see also 1.64). When Manilius shortly afterwards speaks of *hic . . . deus et ratio, quae cuncta gubernat* ('this god and reason that governs all', 2.82), the phrase *deus et ratio* appears to be a hendiadys, with god and reason being two aspects of the same force.⁷ In the *Astronomica*, then, god can be understood as the soul or breath, or otherwise the guiding intelligence, present within the world. Since this divine entity completely pervades the cosmos, it makes equally much sense to call the cosmos itself a god.⁸

As these examples show, one of the jobs of this god, who is either identical with or immanent in the world, is to uphold the cosmic order, which for Manilius rests on the interplay among and interconnectedness of all parts of the universe. The poet expresses this concept in a number of different images. Obviously, the vitalistic notion of the world as a living being equipped with a soul already implies the organic cooperation of

⁶ The force of the reference to silence is unclear (cf. also *tacita . . . mente*, 2.60, as well as 1.63). Feraboli, Flores, and Scarcia 1996–2001 *ad* 1.250–4 suggest that Manilius is alluding once more to the concept of the music of the spheres (cf. 5.3 and 6.2 on *Astr.* 1.22–3), which is imperceptible to ordinary mortals, to whose ears the revolutions of the heavens proceed without a sound.

⁷ Generally on *ratio* in the *Astronomica*, see Lühr 1969: 73–111, with an appendix that lists all instances of the word at 176–8. Manilius throughout the poem employs *ratio* not only for the divine intelligence that governs the universe, but also for the (related) intelligence of human beings and for the rational system of astrology, thus effecting a close association among the three.

⁸ Another way to refer to the divine universe is *natura* ('nature'); see Wacht 1990 s.v. and below in the text for examples.

all its 'body parts' (in addition to 2.64–6, just quoted, see esp. 1.247–54, 2.752–3, 3.50–1, and 4.888–90). A more mechanistic view is expressed in the image of the *machina mundi* ('machine of the world'), whose interactive elements are designed in such a way as to ensure its orderly movements (see 2.67–8 and cf. 2.807). Most often, however, we find what we might call a muted sociological metaphor, according to which the constituent parts of the cosmos resemble human beings, who are 'related' to one another (*cognatus* is a keyword; see esp. 1.254 and 2.67 and below on 2.123 and 4.910); interact according to *foedera* ('treaties'; see 1.252, 2.62, and 3.55 and cf. 1.493); and are inspired by such political virtues as *consensus* ('concord', 2.63) and *concordia* ('harmony', 3.54).⁹

The divine nature of the universe and the principle of cosmic interconnectedness enable Manilius' 'strong' and 'hard' astrology. If the cosmos is inspired with some kind of higher intelligence; if this intelligence operates in an orderly and purposeful way; and if there is an unflinching mechanism in place to transmit the operations of this intelligence to all parts of the universe, including human beings—then it makes perfect sense to claim that everything, including ourselves, is subject to an unbroken chain of cause and effect. In the proem to Book 4 (1–118), Manilius provides a lengthy exposition of the rule of fate, assuming a position of strict determinism:

fata regunt orbem, certa stant omnia lege
longaque per certos signantur tempora casus.
nascentes morimur, finisque ab origine pendet. (4.14–16)

Fate rules the world, everything is determined by a fixed law, and long periods of time are marked with their certain events. At birth, we die [i.e., our death is predetermined], and our end depends on our beginning.

To believe that, owing to universal interconnectedness, everything is predetermined does not yet in itself necessitate that a crucial role be

⁹ The poet's representation of cosmic interconnectedness in such sociological and even political terms is reminiscent of the simile of the heavenly *res publica* at the end of Book 5 and typical of Manilius' general tendency to humanize the cosmos (cf. 3.4 above and see further Ch. 7 below). Note, furthermore, that all the terms mentioned (*cognatus*, *foedus*, *consensus*, and *concordia*) are also used repeatedly to describe the relationships, especially in terms of astrological aspect, of the individual signs of the zodiac (see Wacht 1990 s.vv.). This ties Manilius' astrology in with his philosophy; it also deepens the impression that both his stars and his cosmos as a whole are ultimately all-too-human. Generally on the history of all three images employed by Manilius—the cosmos as a living being; a political community; or a mechanical artefact—see Lloyd 1966: 210–303.

played by the stars. However, since (thanks to the ambiguity of words like *mundus*; see 2.1, fn. 13) the universe is often identified primarily with its most noble part, the starry sky, and since the stars (thanks to their literally ‘elevated’ position, the regularity of their motions, and their beauty) enjoy special prestige within ancient cosmology, it is a small step to declaring them the actual dispensers of fate. As we have seen in 3.1, though, Manilius never in fact makes an explicit case for astrology, contenting himself simply with stating that ‘god and reason . . . derives earthly beings from the constellations in the sky’ (*deus et ratio . . . | ducit ab aetheriis terrena animalia signis*, 2.82–3) and that nature ‘made the fates and lives of human beings dependent on the stars’ (*fata . . . et uitas hominum suspendit ab astris*, 3.58).

Rather than providing a detailed exposition of how the world works, Manilius is interested in elucidating how it is possible for us to find out about these matters in the first place. Can human beings really understand the heavens? Obviously, this question is at the heart of Manilius’ enterprise as a teacher of astrology, and he dedicates a fair amount of space to ‘meta-discussions’ about the very pursuit of insight into the cosmos (see esp. 4.390–407 and 873–935, the two responses to the frustrated student). It is the poet’s strong belief that humans, being able to grasp the workings of the universe, should dedicate all their energy to this endeavour. Within Manilius’ cosmic continuum, human beings, too, are obviously bound up in the universe and related to all its parts; indeed, they are, as it were, themselves children of the heavens. The poet thus describes the study of celestial phenomena as follows:¹⁰

nostrumque parentem
pars sua perspicimus genitique accedimus astris. (4.884–5)

We understand our father, of whom we are a part, and approach the stars, from which we were born.

Since the cosmos is divine, human beings, as part and offspring of the cosmos, clearly must partake in its divinity at least to a certain extent. However, Manilius goes even further. Returning to the concept of the universe as a great living being ruled by a divine soul, the poet constructs a parallel to humans, those small living beings likewise in possession of a divine soul (4.888–93): built similarly to the universe, man is a ‘little world’ of his own, a microcosm, and hence also a little

¹⁰ For similar imagery, cf. 2.123, 4.879, 887, 896–7, and 910; on Manilius’ ‘anthropology’, see also Abry 1998*a*.

god. It is this similarity to the cosmos that enables him to understand its working:

quid mirum, noscere mundum
si possunt homines, quibus est et mundus in ipsis
exemplumque dei quisque est in imagine parua? (4.893–5)

What wonder if men are able to understand the cosmos since they have a cosmos in themselves and each is a miniature likeness of the god?

In addition to the close relationship between macrocosm and microcosm, which explains man's innate capability for cosmological research and insight, Manilius maintains that the divine universe is particularly eager to reveal itself to human beings and calls on them—sometimes positively forces them—to enter into some kind of interaction with it. This idea, which we have already encountered in 5.3, is a leitmotif of the *Astronomica* and is in part connected with the notion of the poet's own mission as *uates mundi*, the chosen medium of the self-revelation of the cosmos by means of song. However, Manilius also stresses the wish of the universe to make itself known to humans in general, beginning in the first proem, where the *mundus* is said to favour those who investigate it (1.11) and where the poet's short history of astrology in 1.25–65 recounts the different stages in which this 'gift of the gods' (1.26; cf. 4.876) was passed on to mortals. In the proem to Book 2, Manilius fervently argues in favour of the ability of human beings to understand the cosmos, drawing attention to their natural gifts such as language and intelligence (2.105–7) and claiming that 'god descends into (man) alone and makes his dwelling place there and searches for himself' (*quem* [sc. *hominem*] *denique in unum | descendit deus atque habitat seque ipse requirit*, 2.107–8). Shortly afterwards, he poses the following grand rhetorical question:

quis caelum posset nisi caeli munere nosse,
et reperire deum, nisi qui pars ipse deorum est?¹¹
quisue hanc conuexi molem sine fine patentis
signorumque choros ac mundi flamma tecta,
aeternum et stellis aduersus sidera bellum

¹¹ These two lines were famously entered by Johann Wolfgang von Goethe into the guest book on Germany's Brocken mountain on 4 Sept. 1784; see Grumach 1949: 1.391, as well as the brief discussion of the affinities between Manilius' and Goethe's world views in Salemme 2000: 143.

ac terras caeloque fretum subiectaque utrisque
 cernere et angusto sub pectore claudere posset,
 ni sanctos animis oculos natura dedisset
 cognatamque sibi mentem uertisset ad ipsam
 et tantum dictasset opus, caeloque ueniret
 quod uocat in caelum sacra ad commercia rerum? (2.115–25)

Who would be able to understand the cosmos unless through the gift of the cosmos or to find god unless he had a place among the gods himself? Or who could see and encompass in his narrow chest the mass of the infinitely vaulted sphere, the dances of the stars, the flaming roofs of the universe, and the eternal war of planets against constellations, and the land and sea beneath the sky and what is beneath both, unless nature had given sacred eyes to the soul and turned the kindred mind towards itself and dictated such a great work, and unless there came from heaven something to call us into heaven for a sacred exchange of things?

As this passage shows, human beings are able and indeed called upon to study and understand the cosmos for three closely interrelated reasons: they are themselves related to the divine universe and thus have a special affinity to it (cf. 116, 123); the divine universe has granted to humans the knowledge of itself as a gift (cf. 115, 122); and finally, the divine universe actively ‘calls’ human beings (123, 125), instigates the ‘work’ of cosmological research (124), and desires an ‘exchange’ (125) with the ‘kindred (human) mind’ (123). The degree of reciprocity envisaged in this passage and the one quoted immediately before is striking: ‘god’ is not simply issuing an invitation to man but ‘descends into him and . . . looks for himself’ (2.108), and ‘nature’ wishes not only to reveal itself, but to enter into some kind of ‘exchange’ (2.125; cf. 1.50). Of course, these notions are enabled by Manilius’ idea of the world as an unbroken continuum, which includes god and man as entities that are both intimately connected and, to some extent, mirror images of each other. Still, there is a certain ‘mystical’ touch to the poet’s enraptured evocations of a communion between human beings and the divine. We shall encounter this tone again shortly.

The finale of Book 4—in which the poet responds to the discouraged objection of his student (4.869–72), who believes that human beings are not in fact able to understand ‘nature’ (*natura*) and ‘fate’ (*fatum*)—develops the theme of cosmic self-revelation still further. After pointing out man’s intrinsic relationship with god and his status as a microcosm (see the passages quoted above), Manilius concludes that human beings are born ‘from’, and thus ‘for’, the heavens: *an cuiquam genitos, nisi*

caelo, credere fas est | esse homines? (4.896–7).¹² He then returns to the argument that man has innate abilities that distinguish him from mere animals (4.897–910): first and foremost among them is his erect walk, which positively predisposes him to ‘lift his starlike eyes to the stars’ (*ad sidera mittit | sidereo oculos*, 4.906–7). In a striking parallel to the conceit at the beginning of Book 2, where god was looking for himself inside human beings, Manilius now describes man as figuratively advancing into the kindred heavens and searching there for none other than himself: *cognatumque sequens corpus se quaerit in astris* (4.910). As the poet makes clear, he is doing so at the behest of the universe itself, which by virtue of the easily visible motions of the stars forces itself on the attention of human beings (4.915–19) and does not allow its call for cosmological study to go unheeded:

ipse uocat nostros animos ad sidera mundus
nec patitur, quia non condit, sua iura latere. (4.920–1)

The universe itself calls our minds to the stars and—since it does not cover them—does not allow its laws to be hidden.

Being human, we are naturally born cosmologists. Not only are we uniquely able to understand the workings of the universe, but we are subject to a positive imperative to dedicate ourselves to this endeavour. Lifting our heads up to the stars is what makes us truly human; in order to fulfil our destiny, to find ourselves, to communicate with that kindred god, we have to contemplate the heavens. As Manilius assures us (4.923–32), we are up to the task: while our intellectual powers may appear small, they are in fact able to encompass the whole, just as the tiny pupil of the eye can take in the entire sky (4.927). In the end—the poet triumphantly asserts—‘reason conquers all’ (*ratio omnia uincit*, 4.932) and ‘nature is no longer hidden anywhere’ (*iam nusquam natura latet*, 4.883). However, the learning process is not easy. In his answer to the student’s earlier objection (4.390–407), which is largely a complaint about the difficulty and obscurity of the subject matter, Manilius admits

¹² I believe that Manilius uses the dative in *cuiquam* and *caelo* with a double meaning: it is a dative of agent, in that humans are born *by* the heavens (cf. 4.887), as well as a dative of purpose, in that humans exist *in order* to study the heavens. Commentators and translators have typically settled for one or the other of the two interpretations (Housman 1903–30, Fels 1990, Goold 1992, and Feraboli, Flores, and Scarcia 1996–2001 prefer ‘from heaven’, while Breiter 1907–8, van Wageningen 1921, and Liuzzi 1991–7 understand ‘for heaven’), but it seems to me that the ambivalence is at the very heart of Manilius’ argument in this passage.

that studying astrology is a lot of work, but he reminds his addressee that people put great effort into far less-deserving (and less-rewarding) enterprises such as mining, seafaring, agriculture, warfare, and luxury living. The student's endeavours are obviously in a different league, following a unique, and uniquely worthwhile, objective:

quod quaeris, deus est: conaris scandere caelum
 fataque fatali genitus cognoscere lege
 et transire tuum pectus mundoque potiri. (4.390–2)

What you are looking for is god: you are attempting to scale heaven and, born by the law of fate, to know the fates and to transcend your mind and gain possession of the universe.

The person who studies the cosmos is on a search for god, striving to overcome the terrestrial, human life and to approximate the divine universe itself. This, according to Manilius, is the ultimate goal of our endeavours, and it is worth every effort:

quid caelo dabimus? quantum est, quo ueneat omne?
 impendendus homo est, deus esse ut possit in ipso. (4.406–7)

What shall we accord the sky? For how much is the all being offered? Man must give up himself, so that god can dwell in him.

This last line is truly remarkable, envisaging man as transcending his own humanity and achieving a kind of union, or even identity, with the divine as the result of his contemplation of the heavens. It is the most prominent expression of Manilius' 'mystical'—we might even say 'religious'—attitude towards the cosmos, which for him is so clearly divine. Studying the universe (just like singing about it; cf. the proem of Book 2 and 5.3 above) is not one pursuit among many: it is a way of life, indeed the only way of life for those intent on following their true nature and the call of the god of whom they themselves are part.

Before moving on to a discussion of the possible sources for Manilius' world view, let us briefly summarize the basic elements of his philosophy as determined in this section. For the sake of convenience, I have provided them with simple labels. We have seen (1) that Manilius believes in the *divinity of the universe*, a concept that appears in many variations throughout the *Astronomica*. He (2) maintains that there is *universal interconnectedness* and interplay among all the parts of the cosmos and (3) takes a stance of *strict determinism*, with a crucial role allotted to the stars as the dispensers of fate. In terms of what we might call epistemology, Manilius holds that human beings are able and called

upon to understand the workings of the cosmos because of (4) the intrinsic *relationship and parallelism between man and the cosmos* and (5) the explicit *self-revelation of the cosmos*. Finally, he presents (6) *contemplation of the heavens* as the means to human perfection and a way of approaching the divine.

6.2. POSSIBLE SOURCES FOR MANILIUS' WORLD VIEW

It is obvious that Manilius did not come up with his world view in an intellectual vacuum, but what exactly are the origins of the ideas we encountered in the previous section? Over the years, a number of philosophical and other influences have been suggested, and additional ones can be imagined as well. Of course, it is perfectly possible, indeed likely, that the poet drew on a number of different traditions rather than being an orthodox follower of a particular school of thought. In this section, then, I survey the possible influences on the *Astronomica's* philosophy one by one, offering as I go along an assessment of how I perceive their relative importance.

Stoicism

Within Manilian scholarship, it is the majority opinion that the world view expressed in the *Astronomica* is predominantly Stoic.¹³ At the time of the poem's composition, Stoicism was a system of thought and way of life well known and popular in Rome. Like the other Greek philosophical schools, the Stoa had begun to engage the attention of the Roman elite in the second century BC, when Greek intellectuals came to Rome as a result of the conquest of the East and embassies consisting of philosophers intrigued their Roman audiences with the intellectual challenge of their speeches. By the first century BC, upper-class Romans went to study with philosophers in Greece and often ended up expressing allegiance to a particular school, declaring themselves Stoics, Epicureans, or Academics. This tendency is apparent from Cicero's

¹³ Thus, e.g., the *OCD* entry (= Wilson 1996) simply introduces Manilius as 'Stoic author'. For the poet's Stoicism, see esp. Lühr 1969, Reeh 1973: 159–85, Lapidge 1989: 1393–7, and Salemme 2000: 27–56. Against the *communis opinio*, Lanson 1887: 29–53 and MacGregor 2005 maintain that Manilius cannot be described as a Stoic.

dialogues, where individual speakers are often made to represent the individual philosophical schools; perhaps the most famous case of a Roman's adopting a Greek philosophical stance is that of the younger Cato, whose ostentatious Stoicism earned him both admiration and ridicule. Cicero's philosophical work, explicitly aimed at making his compatriots familiar with Greek thought, must also have contributed to the spread at Rome of philosophical ideas, including the tenets of Stoicism, a school for which the eclectic Academic Cicero had quite a bit of sympathy. It is safe to assume that, by the Augustan period, Stoic ways of thinking were easily recognized and not infrequently shared by educated Romans, and there are numerous imaginable scenarios by which Manilius could have encountered them (on the question of specific sources, see below).¹⁴

If we compare the *Astronomica's* world view with the natural philosophy of the Stoa, the parallels are immediately obvious.¹⁵ Like Manilius, the Stoics maintain the divinity of the universe, employing, among other things, the very argument from design to prove that there is a god active within the world.¹⁶ Just as in Manilius, this god can be viewed in two complementary but somewhat different ways. On the one hand, it is possible to consider the entire universe 'omnipresent divine nature... which is through and through alive, generative, and designing all its products according to a rational plan' (Long and Sedley 1987: 1.267)—that is, to equate god and the cosmos. On the other hand, god is often presumed to be a force active within the cosmos, an 'all-pervasive causal agent *immanent* in matter' (Long and Sedley 1987: 1.272; emphasis in original). This active principle can be described

¹⁴ Lapidge 1989: 1392 points to tantalizing testimony about Stoic literature written in Latin during the reign of Augustus, which attests to general interest in the subject matter and shows that, around this time, 'Stoic philosophy became a respectable subject for Latin literature' (ibid.).

¹⁵ On Stoic physics, see in the first place the fragments and commentary in Long and Sedley 1987: 1.266–343 and 2.264–342. The secondary literature on the topic is endless: for short and useful introductions, see Long 1986: 147–78, Lapidge 1989 (specifically on the influence of Stoic cosmology on Roman writers), and now Algra 2003 and White 2003.

¹⁶ According to Cicero, this argument goes back to Cleanthes (331–232 BC), the second head of the Stoic school (*Nat. D.* 2.15). Since the works of most Stoic philosophers survive only in fragments, we must rely on later authors for a reconstruction of their doctrines. In the case of Stoic cosmology, the second book of Cicero's *De natura deorum*, in which Balbus delivers a passionate defence of Stoic views of the divine, is a particularly important source. For a detailed treatment of the 'Stoic Arguments for the Existence and the Providence of the Gods', see the book of this title by Myrto Dragona-Monachou (1976); on the Stoic use of the argument from design, see Sedley 2007: 205–38.

either intellectually, as ‘reason’ (λόγος), or vitalistically, as ‘breath’ (πνεῦμα),¹⁷ and is imagined as being blended with all elements of the universe in a state of perfect ‘mixture’ (κρᾶσις). We can match up these very same concepts with the Manilian divine *ratio* and *spiritus* and with his description of god as ‘poured into’ the world.

The idea of universal interconnectedness plays a large role within the cosmology of the Stoics as well. In their wholly corporeal world, which constitutes a physical continuum and where fiery and airy πνεῦμα pervades all things, every part is ultimately connected to every other part and thus able to affect, and be affected by, what happens there. The result is cosmic συμπάθεια, ‘feeling-together, sympathy’, a concept perhaps first developed by Chrysippus, who imported the term ‘sympathy’ from medicine and also used other compounds with the prefix συν-/συμ-, ‘with’, to express the idea that, in the world, nothing happens that does not have an effect on something else, and ultimately on the whole. In imitation of this usage, Cicero in his discussion of the same phenomenon employed words with the Latin equivalent *con-*, as in the artful description of the interconnected universe as *tanta rerum consentiens conspirans continuata cognatio* (‘such a great continuum of interrelated matter, feeling and breathing together’; *Nat. D.* 2.19), to choose just one example among many.¹⁸ As comparison with this Ciceronian phrase shows, Manilius’ vocabulary of cosmic interconnectedness (which, as we have seen, features such words as *cognatus*, *conspirare*, and *consensus*) has a specific Stoic flavour as well, with especially *consensus* (2.63) acting as a veritable translation of συμπάθεια.¹⁹

One of the most notorious aspects of the Stoic system was the school’s belief in all-encompassing fate, a position that again jibes perfectly with what we have seen to be the world view of Manilius.²⁰ According to the Stoics, all events take place in an unbroken chain of cause and effect, a mechanism enabled by the continuous corporeality of the universe. As

¹⁷ The development of the doctrine of πνεῦμα (imagined as a mixture of air and fire) is ascribed to Chrysippus (c.280–207 BC), the third leader of the school, who used it to replace the older notion of ‘designing fire’ (πῦρ τεχνικόν) as an active principle.

¹⁸ I owe my observations on Chrysippus’ συμ- and Cicero’s *con-* to Lapidge 1989: 1383–4 and 1388; see also 1395 on Manilius.

¹⁹ Cf. Cic. *Nat. D.* 3.28: *iste quasi consensus, quam συμπάθειαν Graeci uocant* (‘that concord which the Greeks call “sympathy”’); see also *Div.* 2.34.

²⁰ On Stoic views of fate and causation, see—in addition to Long and Sedley 1987: 1.333–43 and 386–94, and 2.332–41 and 382–9—esp. Bobzien 1998, as well as the discussions in Long 1971, Frede 2003, Brennan 2005: 233–305, and Salles 2005.

Cicero memorably puts it, the passage of time, according to the Stoics, equals the inexorable ‘unwinding of a rope’ (*quasi rudentis explicatio sic traductio temporis*, *Div.* 1.127); in the words of Manilius, ‘the end hangs from the beginning’ (*finisque ab origine pendet*, 4.16).

It is unclear to which extent the Stoics endorsed astrology.²¹ While they certainly believed in divination and used the supposed accuracy of prophecies as an argument for the existence of the gods, and vice versa (see, e.g., *Cic. Nat. D.* 2.7–12 and *Div.* 1.10 and 2.41), there is little discussion in our extant sources of the stars as potential divine signs (‘soft’ astrology) or as actual causes in the general nexus of fate (‘hard’ astrology). Cicero reports that Panaetius (c.185–109 BC) was the only Stoic to reject astrology (*Div.* 2.88), and according to Augustine, Posidonius (c.135–c.51 BC) was a strong believer in the practice (*De civ. D.* 5.2 and 5). While it thus used to be the *communis opinio* that Stoicism was generally favourably disposed to astrology (see, e.g., Bouché-Leclercq 1899: 28–34), recent scholars have taken a more sceptical attitude, pointing out that, by and large, there is little firm evidence one way or the other (see esp. Long 1982: 166–72). Perhaps the early Stoics, who were active in the fourth and third centuries BC, when astrology had just begun to spread in the Greek world, simply did not yet give much thought to this practice, and later school figures may perfectly well have differed in their attitudes to it. Whatever the case may be, astrology can certainly be reconciled with and incorporated into Stoic physics. In the case of Manilius, his obvious adherence to the astrological creed does not, therefore, prevent him from (also) being a Stoic, though, as we have seen, the poet fails to make much of an effort to explain the workings of stellar influence in terms of the cosmological tenets (for example, universal interconnectedness) that he develops at not inconsiderable length elsewhere.

To return to our point-by-point comparison between Manilius’ world view and Stoic cosmology, the idea that humans are intrinsically related to the cosmos and the connected macrocosm–microcosm argument are likewise part and parcel of Stoic doctrine.²² The very concepts of a soul-like principle (*πνεῦμα*) and a guiding intelligence (*λόγος*) within the cosmos already imply that the universe is pictured as a living

²¹ On this question, see Long 1982, Ioppolo 1984, Giannantoni 1994, Bobzien 1998: 145–6 and 166–7, and Jones 2003: 340–1.

²² Generally on ideas of microcosm and macrocosm in antiquity, including in Stoicism, see Conger 1922: 1–28, Allers 1944, and Wright 1995: 56–74.

being comparable to man; in addition, the Stoics explicitly hold that the human soul/mind partakes in its cosmic counterpart (compare Manilius' use of *ratio* for both cosmic and human intellect).

Finally, as for Manilius' more 'mystical' ideas about the self-revelation of the universe and the achievement of union with the divine via contemplation of the heavens, these notions are not alien to Stoicism either (cf. Vogt 2008: 135–48). Not only has the cosmos been teleologically arranged for the benefit of humans, but humans—beings inspired by the divine *λόγος* and endowed with capacities that set them apart from other animals—are capable of taking in and understanding the workings of the whole. According to the Stoic spokesman Balbus in the second book of Cicero's *De natura deorum*, the heavens 'offer a spectacle to men' (*spectaculum hominibus praebent*, 2.155), and it is the very purpose of human life to contemplate and imitate the universe, of which we are part:

ipse autem homo ortus est ad mundum contemplandum et imitandum, nullo modo perfectus, sed est quaedam particula perfecti. (2.37, with reference to Chrysippus)

Man himself is born to contemplate and imitate the cosmos, being by no means perfect, but a certain small part of the perfect whole.

Engaging in this kind of contemplation equals an ascent to heaven and ultimately results in man's becoming similar to the gods:

quid uero? hominum ratio non in caelum usque penetrauit? . . . [There follows a list of celestial phenomena understood by human *ratio*.] quae contuens animus accedit ad cognitionem deorum, e qua oritur pietas, cui coniuncta iustitia reliquaeque uirtutes, e quibus uita beata existit et similis deorum, nulla alia re nisi immortalitate, quae nihil ad bene uiuendum pertinet, cedens caelestibus. (2.153)

What? Has human reason not penetrated all the way into the sky? . . . Contemplating these (celestial phenomena), the mind approaches knowledge of the gods, from which arises piety, and joined to it justice and the remaining virtues, from which comes a life happy and similar to the gods, inferior to the heavenly ones in nothing but (the lack of) immortality, which is of no consequence for living well.

Reason ascends to heaven and, by gaining knowledge of the celestial bodies, gains knowledge of god, which subsequently leads to an assimilation of human and divine life. On the face of it, these ideas appear to be strikingly similar to those found in Manilius; however, if we look more closely, there are crucial differences. As we have seen, the envisaged

goal in the *Astronomica* is a kind of exchange between man and the divine, an overcoming of boundaries, leading to, ideally, a kind of union: god is supposed to 'dwell in' man. There is nothing like this in Cicero, who envisages a human life that is only 'similar' (*similis*) to that of the gods, an expression that needs to mean little more than that this kind of life is perfectly happy.²³ What the Ciceronian cosmologist learns from gazing at the stars are civic virtues that stand him in good stead when he returns to his life in human society; by contrast, the Manilian astrologer forsakes the terrestrial crowds for ever, seeking god himself in the heavens. It is in this religious fervour, this desire for a transcending experience, that Manilius goes beyond what would have been considered orthodox Stoicism. On the whole, though, the *Astronomica's* world view agrees with Stoic thought to such an extent that it would seem appropriate to label the poet a Stoic and conclude that the teachings of the school present a major—probably the largest—influence on his work.

Since, as mentioned above, Stoicism was ubiquitous in the intellectual landscape of early first-century Rome, it appears superfluous or unpromising to search for Manilius' specific Stoic source(s). However, for reasons that will become clear, I shall briefly consider two particular writers, one who was for decades considered the overarching influence on the *Astronomica* and another who—surprisingly—is rarely mentioned in this context. The first is Posidonius, whose presumed importance for Manilius is closely bound up with his reception in German late-nineteenth and early to middle twentieth-century scholarship.²⁴ As is clear from later sources, Posidonius, a Stoic thinker and scientist of the early first century BC, was an extremely important and influential intellectual figure; unfortunately, only meagre scraps of his works survive. This did not deter modern scholars, especially German ones, from reconstructing Posidonius' thought on the basis of later authors, applying fairly generous criteria as to what they considered 'Posidonian'. Conversely, once Posidonius' philosophy had thus been 'established', other works that lacked an obvious intellectual pedigree—such as the poem of Manilius—suddenly looked Posidonian as well,

²³ The comparison of the happy life to that of the gods was a philosophical commonplace in antiquity (see Pease 1955–8 *ad* Cic. *Nat. D.* 2.153 and cf. the discussion below with fn. 38 on *ὁμοίωσις θεῶν* in Plato); to which extent an actual assimilation to the divine is implied differs greatly depending on the context.

²⁴ Salemme 2000: 10–21 provides an excellent *historia quaestionis* and discussion of Posidonius' possible influence on Manilius.

with the result that they in turn could be mined for additional Posidonian material.²⁵ This vicious circle was fuelled both by admiration for a clearly fascinating thinker and by the fashion for reductionist *Quellenforschung*, which rejoiced in being able to point out the one source from which many subsequent works had supposedly sprung.

The 'Posidonius myth' (labelled thus by Dobson 1918) had already encountered criticism early on, especially from scholars in the Anglophone world. In the case of Manilius, for example, Housman poured scorn on all those Germans who ascribed to Posidonius ideas that in the English critic's view were instead philosophical or scientific commonplaces. Thus, Housman writes sarcastically, apropos of Manilius' discussion of the influence of the Moon on sea animals, 'omnia a Posidonio sumpta esse Germanorum nemo ignorat, apud quos iam dudum constat Romanos praeter Posidonium nihil legisse' (1903–30 *ad* 2.93; cf. also *ad* 2.66). It was finally the publication of the Posidonian fragments by L. Edelstein and I. G. Kidd (1972) that put a serious damper on the enthusiasm for the Stoic thinker: containing only those fragments explicitly attributed to Posidonius, the collection made it clear how very little we know for certain about this influential philosopher's thought. As a result, an agnostic attitude is in order concerning his influence on Manilius as well (see the judicious comments of Salemme 2000: 10–21): while it is perfectly possible that the works of Posidonius exerted an important influence on the poet, there is simply no way to prove it. Note, however, that, as we have seen above, the Stoic nature of Manilius' world view can be determined perfectly well without taking recourse specifically to Posidonius, whose teaching on most points of interest to our poet may not have been radically different from that of other Stoics anyway.

When Housman scoffs that, according to German scholars, Romans like Manilius 'read nothing but Posidonius', one implication of this view is that they did not read other Roman authors. This long-held tacit assumption—that, if two Latin writers agree, they must go back to a common *Greek* source—no doubt contributed to the proliferation of the Posidonius myth and has generally skewed our perception of ancient intellectual history. I would maintain that it has also blinded us to the

²⁵ The idea that the *Astronomica* owes much of its scientific as well as philosophical content to Posidonius was first developed by such scholars as Diels 1879: 490, Malchin 1893, Boll 1894: 218–35, and Müller 1901 (see also Blum 1934) and quickly became common (see, e.g., the Pauly–Wissowa entry by van Wageningen 1928: 1123–4). It has fallen from favour only in the past few decades (cf. the *Neuer Pauly* entry, Hübner 1999, at 819).

possibility of an important Latin source for Manilius' cosmology, namely, the second book of Cicero's *De natura deorum*. Scholars often quote portions of Balbus' speech (which, as mentioned in fn. 16 above, is an important source for our knowledge of Stoic natural philosophy and theology) to point out parallels to Manilius, and Almuth Reeh even provides a detailed comparison between the two texts, listing particularly similar passages (1973: 179–85). Still, she does not in fact claim direct dependence and neither (as far as I can tell) does anybody else.²⁶ In the light of the fact, however, that Cicero's text provides an exposition of the very topics that are crucial to Manilius (namely, that the universe is pervaded by a divine force²⁷ and that man is called upon to contemplate the heavens), using the same rhetorical strategies (for example, the argument from design and the macrocosm–microcosm argument) and employing a similarly rapturous tone and even similar vocabulary (see above on the compounds with *con-*), it seems a fair conclusion that the poet availed himself of this easily accessible source text and mined it for his purposes. After all, Cicero's work, written only about fifty-five years before Manilius' poem, was composed with the very purpose of acquainting his Roman audience with Greek philosophy, and it is reasonable to assume that it did not entirely fail to have some effect, including, perhaps, on Manilius. As we have seen above, the poet is certainly familiar with, and imitates, other works of Cicero, including his translation of Aratus and the *Somnium Scipionis*, and pays the author the compliment of including him among the dead heroes in the Milky Way (1.794–5); when he writes that Cicero received this honour on account of the 'wealth of his eloquence' (*censu . . . oris*, 1.794), he may be referring to his abilities, not only as an orator, but also as a poet and philosophical writer.

One particular point of contact between Manilius and the Balbus speech is the argument from design and its use with a particularly anti-Epicurean slant. We have seen how the argument is employed in *Astronomica* 1.474–531 and again in 2.67–81. In the *De natura deorum*, it is repeated again and again, including, among other places, in 2.19 (where it is treated as an unailing proof: *quem non coget ea quae dicuntur a me conprobare?*, 'whom will it not force to agree with what I say?'; compare *mibi tam praesens ratio non ulla uidetur*, 'no reason

²⁶ See, however, Feraboli, Flores, and Scarcia 1996–2001 *ad* 1.485–500 on the possible influence of Cic. *Nat. D.* 2.115 (mentioned below).

²⁷ Note though that Cicero describes this force as heat, i.e., the 'designing fire' of older Stoic doctrine, not as the Chrysippean breath (*πνεῦμα*) found in Manilius.

seems equally compelling to me', *Astr.* 1.483) and in 2.115 (where dismissive rhetorical questions of the 'Who could believe?'-type are meant to demonstrate the absurdity of the opposing position; cf. *Astr.* 1.492–3). In 2.93, Balbus illustrates the unlikelihood of a random creation of the cosmos with the observation that a random arrangement of letters will hardly yield Ennius' *Annals*. As we have already seen in 5.2, the same implied analogy between letters and physical elements may lie behind the learning-to-read simile in the methodological digression of *Astronomica* 2.755–71. A connection between the two passages is made additionally likely by the fact that Cicero follows up his argument with an example from architecture (2.94):

quodsi mundum efficere potest concursus atomorum, cur porticum cur templum cur domum cur urbem non potest, quae sunt minus operosa et multo quidem?

If the collision of atoms can create the world, then why can it not create a portico or temple or house or city, things that are less, and indeed far less, difficult to make?

In the *Astronomica*, too, the simile of the letters is followed by one from the building of a city (2.772–87). Of course, unlike Cicero, Manilius is not at this point employing the argument from design, but rather discussing his didactic method. However, as we have already seen, his similes imply the idea that the world is a well-ordered whole and thus, under the surface, carry the same anti-Epicurean polemic that in Cicero is out in the open.

To conclude, it cannot be proved that Manilius really used *De natura deorum*. After all, it is possible that he got the same ideas from different sources, or even from the same source as Cicero himself, which, for all we know, may have been a work by Posidonius. For the reasons just outlined, however, it seems to me more likely than not that the poet indeed made use of the first and most prominent author to have written about Stoic philosophy in Latin. If he did not, I would at least maintain that Manilius is a Stoic very similar to Cicero, or rather to Cicero's Balbus: enraptured by—indeed, positively drunk on—the order and beauty of the divine universe and the ways of expressing this order and beauty in language.

Hermetism

If it thus appears plausible that Stoicism played a considerable role in the formation of Manilius' world view, it is not the only influence that

scholars have detected. The second thought-system often believed to lie behind the *Astronomica* is Hermetism, a tradition at first glance rather different from the intellectual movement of the Stoa and one much harder to pin down.²⁸ We possess a whole number of Greek treatises of popular philosophy of a highly eclectic and mystical nature that are ascribed to 'Hermes Trismegistos' (the 'thrice greatest'), that is, the Egyptian god Thoth as identified with his Greek counterpart. This so-called Hermetic Corpus dates from the first few centuries AD. However, as we can tell from quotations and fragments, there also existed already a few centuries earlier a body of literature on more technical subject matters, including astrology, that was likewise supposed to have been written by Hermes or was otherwise associated with him. In other words, we have a pseudepigraphic tradition, beginning in the Hellenistic period, of 'Hermetic' works, which at least from our perspective fall into two distinct categories: the 'technical' Hermetica (early and largely lost) and the 'philosophical' Hermetica (late and extant).

What does all this have to do with Manilius? When in 1.30 the poet identifies the *primus inuentor* of astrology as the 'Cyllenian'—that is, Mercury—he clearly means the Egyptian Hermes, who was credited with the invention of divers arts, including writing and indeed celestial divination.²⁹ The immediately following description of the oriental origins of astrology (1.43–5) makes this identification additionally likely, especially if we wish to see, in the mention of the kings (1.40–5) and priests (1.46–50), an allusion to the legendary Nechepso and Petosiris: the astrological treatise ascribed to them and perhaps used by Manilius is believed to have had a Hermetic character as well.³⁰ In addition, the poet's sources could have included other technical Hermetica, including the comprehensive astrological compendium whose

²⁸ Generally on Hermetism, see Festugière 1944–54, Nock and Festugière 1945–54 (edn. of the Hermetic Corpus), Fowden 1986, Copenhaver 1992 (English translation of the Hermetic Corpus and the *Asclepius*), and Struck 2004. On supposed Hermetic influences on the *Astronomica*, see esp. Kerényi 1923: 153–8, Vallauri 1954, and Valvo 1956 and 1978.

²⁹ See Housman 1903–30 *ad loc.* Hübner 1984: 127–8 makes the attractive suggestion that Manilius has already alluded to Hermes already in 1.20–2, where the two altars of song and subject matter can be understood as those of Apollo (mentioned in 1.19) and Hermes (see also Flores 1982: 121 and Feraboli, Flores, and Scarcia 1996–2001 *ad* 1.11–24). On the role of Hermes in Manilius, particularly on his implied 'theft' of the cosmos, see further below in 6.3.

³⁰ On the presumed Hermetism of Nechepso and Petosiris, see Firm. Mat. *Mathesis* 3. *praef.*4–1.1, Kerényi 1923: 152, Festugière 1944–54: 1.103, and Fowden 1986: 2.

existence A.-J. Festugière conjectures, using as evidence the Latin *Liber Hermetis*, a Late Antique florilegium that preserves earlier material.³¹

If thus, as appears likely or at any rate perfectly possible, Manilius' astrological sources included writings that we would count among the technical Hermetica or that at least featured Hermes in some capacity, the question remains whether this makes the *Astronomica* a 'Hermetic' work. This issue is bound up with the problem of the consistency of Hermetic thought and the relationship between the philosophical and the technical Hermetica, specifically with the question to what extent we can use the former to tell us about the latter. In the concrete case of Manilius, it turns out that there are many points of philosophical contact between the *Astronomica* and the Hermetic Corpus proper—which, however, postdates Manilius. Are we entitled to conclude that the same ideas were already found in the technical Hermetica or at least that they were already in existence (as an oral tradition?), forming a system of thought that influenced those technical writings and that would ultimately find written expression in the actual Hermetic Corpus?

Giovanna Vallauri in a 1954 article provides a detailed comparison between the *Astronomica* and the Hermetic Corpus, revealing that all the constituent elements we have isolated in Manilius' cosmology are also present in Hermetic thought. These include the divinity of the cosmos (proved by the argument from design), with the particular notion of god as all-pervading reason; the idea of universal interconnectedness; determinism; the idea that man is related to and/or a mirror image of the divine; the self-revelation of the cosmos; and the view that man is born for the contemplation of the universe, an activity that will ultimately make him like god. Given that the Hermetic Corpus is, in Vallauri's words, fundamentally characterized by an interest in the 'relations between the divinity and man' ('relazioni fra la divinità e l'uomo', 143) and by the 'aspiration to understand the divinity' ('aspirazione a comprendere la divinità', 134), it is not surprising that the revelatory and mystical element is particularly strongly developed. As in Manilius, god wishes to be known by human beings, and humans in turn can achieve perfection only through the knowledge (*γνώσις*) of god:

³¹ On the astrological Hermetica, see Festugière 1944–54: 1.89–186 (1.106–23 on the *Liber Hermetis*), Gundel and Gundel 1966: 10–27, and Fowden 1986: 91–4. The *Liber Hermetis* has been edited by Gundel 1936*b* and Feraboli 1994.

οὐ γὰρ ἀγνοεῖ τὸν ἄνθρωπον ὁ θεός, ἀλλὰ καὶ πάνν γνωρίζει καὶ θέλει γνωρίζεσθαι. τοῦτο μόνον σωτήριον ἀνθρώπῳ ἐστίν, ἡ γνώσις τοῦ θεοῦ. αὐτὴ εἰς τὸν Ὀλυμπον ἀνάβασις. (CH 10.15)

For god is not ignorant of man; on the contrary, he knows him fully and wishes to be known. This alone is salvation for man: knowledge of god. This alone means rising into heaven.

As in Manilius, the intellectual approach to the divine is presented as an actual ascent to heaven (see also, e.g., CH 10.25) and the gaining of knowledge about god ultimately leads to man becoming divine himself:

ὁ γὰρ γνούς καὶ ἀγαθὸς καὶ εὐσεβὴς καὶ ἤδη θεῖος. (CH 10.9)

He who has acquired knowledge is good and pious and already divine.

Further similarities between Manilius and the Hermetic material include a stance of elitist exclusivity. In the philosophical Hermetica, it is repeatedly stressed that true knowledge is granted only to an elect few (see, e.g., CH 4.3, 9.5; *Ascl.* 7, 9, 22), while, in the *Astronomica*, the poet's usual optimism about mankind's abilities is undercut by the reference to the *minima turba* of his disciples in 2.143–9 (cf. 5.1 and 6.3). Finally, Hermetism explicitly espouses astrology, holding that fate is indeed dispensed by the stars: ὄπλον γὰρ εἰμαρμένης οἱ ἀστέρες ('for the stars are the instrument of fate', Stob. 1.82.8–9 Wachsmuth=*Excerptum* 12.2 Nock and Festugière).³²

The parallels described are striking, but do they really allow us to conclude that Manilius was influenced by Hermetic ideas? Salemme 2000: 21–6 critically examines the evidence and comes to a negative conclusion, based on a number of observations. First, the fact that the philosophical Hermetica postdate Manilius, while not fatal to the assumption of intellectual influence, at the very least complicates matters since we simply cannot be sure that the ideas found there already existed earlier (even if Hermetic literature of some description certainly did). Second, the similarity between Manilius' cosmology and that found in the Hermetic Corpus can be explained by the fact that Hermetism is an inherently eclectic thought-system that availed itself of many intellectual traditions, including Stoicism. The *Astronomica* and the philosophical Hermetica would thus present parallel, rather than subsequent, developments of intellectual history. Finally, Salemme points out that, notwithstanding the similarities between the two, there

³² See Festugière 1944–54: 1.87–8, Gundel and Gundel 1966: 309–11, and Mahé 1993 on astrology in the philosophical Hermetica.

are fundamental differences. In many of the Hermetic treatises, the ultimate goal of the human soul is to overcome fate and free itself from matter, rising through and above the physical universe to a purely intellectual sphere. This idea implies a dualist conception of the world that ultimately goes back to Plato and is far removed from the monism of the Stoics and Manilius, in whose single universe everything, including god, is corporeal and fate is inescapable.

Salemme's points are valid, but it may be observed that Hermetism (unlike, say, Stoicism) is not in fact a coherent philosophy but rather the sum of ideas that modern scholars have abstracted from those writings that have come down to us under the name of Hermes and that do seem to point to the existence of some kind of intellectual movement, about which, however, we know very little.³³ There are a number of contradictions within the Hermetic Corpus and between the philosophical and the technical Hermetica. In particular, the dualist, transcendentalist position just described is in obvious contrast, not only with the monist concept of an immanent god found elsewhere in the Corpus (see Fowden 1986: 102–4 on this contradiction), but also with the basic tenets of astrology. As Garth Fowden writes,

The account of the soul's progress through the material and spiritual worlds that we find in the philosophical Hermetica stands in essential contradiction to the doctrines of Hermetic astrology, many of whose devotees would have found it impossible to allow that Man might transgress the planetary spheres and lose himself for ever in contemplation of the divine realm. (1986: 119; see also Festugière 1944–54: 1.122–3)

To return to Manilius, it would thus be perfectly possible for him to adopt certain views that he found in his hypothetical Hermetic sources while eschewing others—or perhaps his particular sources (especially if they were predominantly astrological) contained only the one kind. However, we may be able to detect in the *Astronomica* slight traces of the same self-contradiction that is found in Hermetism. In Manilius' poem, of course, the world is corporeal, there is an unbroken chain of cause and effect, and man is subject to fate. Still, the expressed wish to rise to heaven, encounter god, and become divine pushes the limits of this world view and at times, perhaps, moves beyond it: 'giving up man himself so that god may dwell in him' (cf. 4.407) already has a taste of

³³ See Fowden 1986 for an attempt to determine the social context of the Hermetic works.

dualism and transcendentalism—though, of course, there is no way to know whether Manilius got this taste from the teachings of Hermes Trismegistos.

In the end, the question of the Hermetic sources of the *Astronomica* remains unresolved. By presenting Hermes as the founder of astrology, Manilius certainly shows himself aware of, and probably wishes to align himself with, a tradition. I consider it likely that one or more of the poet's astrological sources were 'Hermetic' in some sense or other and think it is possible, if by no means assured, that they mentioned (presumably in passing) some of the philosophical ideas found in the later Hermetic Corpus. Many of these ideas would have been the same as or very similar to those Manilius encountered in his presumed Stoic readings, and this fundamental agreement, we may conjecture, would have made them even more attractive to the poet. After all, the *uates mundi* was not out to represent a particular school or mystical movement in his poem but, simply and more importantly, to speak the truth.

Platonism

As our examination of Manilius' relationship to Hermetism has shown, it is perfectly conceivable for the poet to have been influenced by more than one intellectual tradition and not necessarily possible to determine where he picked up a particular notion. Individual ideas are not always restricted to specific schools of thought: they may be free-floating commonplaces, part and parcel of the cultural imagination of a particular place and time, or they may at the very least suggest a common ancestry, a point of intellectual departure shared by more than one subsequent world view. In the much-quoted words of A. N. Whitehead, European philosophy 'consists of a series of footnotes to Plato' (1978: 39), and a whole number of Manilius' ideas too are originally Platonic, though it cannot be decided whether he derived them from Plato directly or filtered through their reception in later traditions, including Stoicism and Hermetism, both of which were much influenced by Platonic thought.³⁴

³⁴ See Betegh 2003 for a neat discussion of how Platonic ideas, esp. from the *Timaeus*, were taken up and modified by Stoicism (cf. also Sedley 2007: 205–38); for the reception of the *Timaeus* by both Stoics and Platonists, see Reydam-Schils 1999. Sedley 2002 argues specifically for the influence of the Academic Polemo (late 4th–early 3rd c. BC) on Stoic theology, while Frede 2002 examines the influence of *Laws* 10 on Stoic ideas of providence. A more general discussion of the development of Hellenistic views of the

Platonism is often associated with a radical dualism that posits a clear divide between the perceptible world of change and the purely intellectual realm of the Forms. As we have seen above, this kind of thought is (largely) alien to Manilius, who follows Stoic monism in positing a universe in which the divine is physically immanent. However, there is no reason why the poet could not have appropriated certain Platonic views without buying into the system as a whole. Also, and more significantly, Plato's thought developed over time and by no means adds up to a perfectly coherent doctrine, and there are immanentist tendencies in his late cosmology, which proved to be influential on Hellenistic and later views of the universe.³⁵

The work of the greatest interest in this context is the *Timaeus*, in which the eponymous main speaker recounts the creation of the world by a creator god, who is explicitly called a 'craftsman' (*δημιουργός*). The account is puzzling, with scholarly controversy surrounding a number of details, but while the cosmos described is different from that of Manilius in many ways, there are important points of contact. According to Plato, the universe is a 'living being with a soul and an intelligence' (*ζῶον ἔμψυχον ἔννοον*, 30b8) that is self-sufficient, orderly, and beautiful, with the result that it can be described as a 'happy god' (cf. *εὐδαίμονα θεόν*, 34b8). Its soul, to whose description Plato devotes quite a bit of space, extends through, and embraces, the entire cosmos (34b3–7), while also being imagined as two revolving circles, that of the 'same' and that of the 'different', which are clearly meant to represent the diurnal rotation of the sphere of fixed stars, on the one hand, and the movement of the planets along the zodiac, on the other (36b6–d7). As for the stars themselves, they are explicitly said to be gods (40a2–b6).

What we have here is the familiar notion of a divine universe endowed with some guiding principle (the world soul), coupled with the interesting fact that astronomical phenomena are explicitly accorded an important role. As for man's place within the cosmos, human souls are not only created in the same 'mixing bowl' and out of the same (if somewhat less pure) stuff as the world soul, but are assigned, at creation, each its own personal star (41d4–e1). To this it will—provided that it

cosmos under the influence of Plato is provided by Festugière 1944–54, vol. 2; see also Schmid 2005: 119–202.

³⁵ On the two strands of thought (dualist/pessimistic v. immanentist/optimistic) in Platonic thought and their reception, see the second volume of Festugière 1944–54 (pp. ix–xvii provide a general introduction); for a detailed discussion of Plato's later cosmology and its immanentist slant, see Carone 2005.

has conducted itself virtuously during life—return after death to live happily ever after (42b3–5). This is a relatively early testimony to the belief (later so popular) in an afterlife in heaven, and it is here coupled with the more specific idea that human souls are closely related to the stars.³⁶ For Manilius, the astral origin and final destination of the soul is an accepted fact:

an dubium est habitare deum sub pectore nostro
in caelumque redire animas caeloque uenire?
(4.886–7; see also 4.885 and 896–7)

Or is there a doubt that a god lives in our mind and that our souls come from heaven and will return to heaven?

Related, if somewhat different, is the poet's description of the Milky Way as a dwelling place of dead heroes (1.758–804; see further below), while his repeated reference to the heavenly afterlife of the emperor presents a specifically Roman development of the idea of celestial immortality.

What is the kind of life that will make us happy and return us to the stars? According to Plato, it consists in contemplating the heavens, an activity to which we are predestined through our eyesight (47b5–8; cf. *Astr.* 4.906–7) and erect walk (90a2–b1; cf. *Astr.* 4.905–6). By understanding the celestial revolutions, which equal the movements of the world soul, we will be able to control the movements of our own related souls and have them revolve in the same orderly and rational way as the heavens (47b5–c4 and 90c7–d7). The result will be the achievement of the 'best life' (cf. ἀρίστου βίου, 90d6), both now and for all time to come. As later in Manilius, the study of the heavens is thus presented as *the* path to human perfection, with the goal of an assimilation of man and the divine universe, who ideally are meant to move absolutely 'in sync'.³⁷

³⁶ Generally on the notion of astral immortality, see Cumont 1949: 142–88, Boyancé 1952, Rougier 1959: 54–98, and Burkert 1972: 357–68; see also fn. 48 below. Cf. also Scott 1991, who traces the idea of the stars as ensouled (and thus closely related to human souls) from Plato to Origen.

³⁷ On Plato's 'cosmological ethics' in the *Timaeus*, see Betegh 2003 and Carone 2005: 53–78. I wonder whether the Platonic idea of man as actively participating in the circular movements of the heavens does not lie behind *Astr.* 2.143, where the small group of the poet's students is described as 'those whom they [the stars and the universe] have not begrudged their sacred motions' (*quibus illa sacros non inuidere meatus*). Of course, in a way this is a metonymy for 'have not begrudged *knowledge* of their sacred motions', but, as the *Timaeus* shows, understanding the revolutions of the heavens and taking part in them are two closely related things, and Manilius has just been describing his own activity as driving his poetic chariot in an 'orbit' (*in orbe*, 2.138) through the sky (2.138–40); cf. Volk 2002: 234 n. 74 and 2003.

The general idea that ‘becoming similar to god’ (*ὁμοίωσις θεῶν*) is the purpose of a well-lived human life is found elsewhere in Plato’s work (see esp. *Resp.* 10.613b1, *Thrt.* 176b1–3, and *Leg.* 4.716c1–d4).³⁸ As for the more specific notion that such a divinization is to be achieved through the study of the heavens, this is developed further in the *Epinomis*, a dialogue written by an early follower of Plato, perhaps Philip of Opus.³⁹ Both concepts were picked up and modified in various ways by many thinkers and writers in the centuries following Plato’s death, until they finally reached Manilius, who may or may not have known of their Platonic origins.⁴⁰ What this cursory discussion shows, then, is not that Manilius was some sort of Platonist (which he clearly was not), but rather that many of the details of his world view can ultimately be traced back to the thought of the man who—to borrow Manilius’ image from the proem of Book 2—had become the fountainhead of subsequent Western philosophy.⁴¹

Pythagoreanism

If we can trace some of the ideas found in Manilius, as well as in Stoicism and Hermetism, back to Plato, it is also possible to speculate on the sources of Plato’s own thought. Clearly, his cosmological and theological views would have been influenced by popular Greek notions about the universe and the gods; it is quite conceivable that he adapted certain Near Eastern ideas; and he was obviously inspired by earlier and contemporary philosophers. An examination of these influences is beyond the scope of this book; however, one school of thought that was believed to have been of particular importance in shaping Plato’s philosophy is of significance for the present discussion. Many aspects of Platonic cosmology as

³⁸ On the concept in Plato, see Festugière 1944–54: 2.132–52, Sedley 1997 and 2000, Annas 1999: 52–71, Betegh 2003, and Carone 2005: index s.v. ‘god/s as model/example’.

³⁹ On the *Epinomis*, see Festugière 1944–54: 2.196–218 and Tarán 1975. Generally on the topos of *contemplatio caeli* in antiquity, see Pfeiffer 2001: 27–69.

⁴⁰ In the light of my observations on the *De natura deorum*, we might consider the possibility that Manilius was familiar with Cicero’s translation of the *Timaeus* as well; this would imply that he had actual knowledge of Platonic doctrine rather than only of those ‘Platonic commonplaces’ that were part of the general culture.

⁴¹ Manilius lists Plato as one of the Greek inhabitants of the Milky Way (where he is one of only two philosophers, the other being Socrates) and describes him as *aetherius* (‘heavenly’, 1.774). While the adjective can be taken simply as ‘divine’, there may also be an allusion to the philosopher’s contribution to the study of the heavens.

expressed especially in the *Timaeus* and the *Epinomis* were in antiquity, and are often still today, considered actually ‘Pythagorean’—that is, developed either by Pythagoras (6th c. BC) himself or by Pythagorean philosophers of the fifth and fourth centuries. These include in particular the ideas that the cosmic order can be expressed in mathematical terms,⁴² and the notion that human souls—immortal and bound up in a process of transmigration—are related to the stars. Generally, the astral mysticism and ‘religious’ attitude towards the universe that we have already seen in Plato and that came to pervade cosmological thought in the Hellenistic period—and clearly left its mark on Manilius—was often associated with the influence of Pythagoras.

Owing to the scarcity and unreliability of our sources, it is impossible for scholars today properly to assess the contributions of both Pythagoras himself and his followers.⁴³ It is unclear whether Pythagoras himself developed any of the more philosophical and scientific ideas ascribed to him, or whether he was primarily the leader of a religious cult; it is difficult to reconstruct the details, and impact, of the systems of such later Pythagoreans as Philolaus (c.470–390 BC) and Archytas (fl. c.400–350 BC); and, crucially, it is impossible to tell to which extent Plato and later Platonists, rather than being influenced by Pythagoras, actually ‘invented’ Pythagoreanism by fathering their own ideas on a revered and semi-mythical figure. In what follows, it is therefore not my intention to reconstruct an actual Pythagorean pedigree (via Plato, or via Hellenistic sources) of Manilius’ larger cosmological views; rather, I shall briefly consider a few smaller ideas and expressions found in the *Astronomica* that the poet, or his contemporaries, may have regarded as ‘Pythagorean’, whether with any justification or not.⁴⁴

There can be no doubt that Manilius had heard of Pythagoras. Owing to the sage’s Italian origin, he had always been held in high esteem at Rome, where a legend connected him with King Numa and where already Ennius had demonstrated his knowledge of the Pythagorean theory of metempsychosis by claiming that he was housing

⁴² Thus, e.g., in the *Timaeus*, the world soul is described in terms of the mathematical ratios of its constituents (35b4–36b6), while in the *Epinomis*, ‘number’ (ἀριθμὸς) is said to be a gift from god that enables us to understand the heavens (977a2–b8).

⁴³ The classic treatment of the ‘Pythagorean question’ remains Burkert 1972; see also Kahn 2001 and Riedweg 2005.

⁴⁴ On Pythagorean ideas in Manilius, see also MacGregor 2004: 154–5 and 2005: 49–52 and 59–65 and Habinek 2007: 234–5.

Homer's soul (*Ann.* 2–11 Skutsch).⁴⁵ In the first century BC, there was apparently a revival of Pythagoreanism, led by none other than Nigidius Figulus (see Cic. *Tim.* 1) and involving that other great contemporary intellectual M. Terentius Varro (see Kahn 2001: 88–9). Little is known about the activities of this Roman Pythagorean circle (not too surprisingly, given its status as a secret society), but its existence clearly attests to contemporary interest in Pythagorean thought, an interest that is also apparent from the lengthy speech of Pythagoras that Ovid, a few decades later, included in his *Metamorphoses* (15.60–481). Manilius, of course, knew Ovid's work, and he presumably knew Nigidius' *Sphaera*; he may well have read other works of Nigidius as well, including, perhaps, ones that touched on Pythagoreanism.⁴⁶

There are two ideas found in the *Astronomica* that would have been considered specifically Pythagorean: the Milky Way as a realm of dead souls (1.758–804) and the music of the spheres (1.22–3). As for the first, I believe, as mentioned above, that Manilius' main source for this passage was Cicero's *Somnium Scipionis*. This finale of the *De re publica* is modelled on Plato's eschatological Myth of Er, but shows a number of important differences (see Zetzel 1995: 15 and 223–4). One concerns the dwelling place of those outstanding souls who through their justice and piety have earned immortality. Cicero places them in the Milky Way (*Rep.* 6.16), a move to which he may have been inspired by a work of Heraclides of Pontus (4th c. BC), which recounts the eschatological vision of a certain Empedotimus.⁴⁷ According to Heraclides, the Milky Way functions as a kind of waystation for human souls: it is the place through which they pass both on their way down (from the stars to incarnation) and on their way back up. Heraclides was one of those early followers of Plato who espoused (and creatively shaped) 'Pythagoreanism' (see Kahn 2001: 63–71); he may well have claimed explicitly that the eschatology of the Empedotimus narrative went back to Pythagoras (cf. Burkert 1972: 368). Even if he did not, both the general idea of astral immortality and the more specific notion of the Milky Way as a kind of 'heaven' were so often associated with Pythagorean thought that Manilius too presumably made the connection, and he and his

⁴⁵ On Pythagoreanism in Rome, see Liebeschuetz 1979: 129–31, Rawson 1985: 291–4, Kahn 2001: 86–93, and Riedweg 2005: 123–4.

⁴⁶ Note, though, that, as Rawson 1985: 291 points out, none of Nigidius' extant work titles or fragments appears to be particularly Pythagorean.

⁴⁷ *Fr.* 90–103 Wehrli. On the work, see Burkert 1972: 366–8, Gottschalk 1980: 98–101, and Kahn 2001: 66–7.

contemporaries would, therefore, probably have considered *Astronomica* 1.758–804 a particularly Pythagorean passage.⁴⁸

As for the music of the spheres, to which Manilius alludes obliquely in his first proem, this phenomenon was routinely associated with the Pythagoreans and is invoked by numerous ancient writers, again including Cicero in the *Somnium Scipionis* (*Rep.* 6.18–19) and, with explicit reference to Pythagoras, in *Nat. D.* 3.27 (*ad harmoniam canere mundum ut Pythagoras existimat*, ‘the cosmos sings in harmony, as Pythagoras believes’).⁴⁹ In Manilius, as we have seen in 5.3, the mention of cosmic sound is part of the poet’s description of the ecstasy he experiences during his worship at the twin altars when both he and the *mundus* sing according to the same ‘fixed measure’ (*certa cum lege*, 1.22). Similar ecstasy is expressed in the immediately preceding reference to the poet’s heavenly journey, with its repeated *iuuat* (‘it is pleasing’, 1.13 and 17). This passage has a Pythagorean tone as well, by virtue of a clear allusion to a portion of the Pythagoras speech in Ovid’s *Metamorphoses*, which also employs a double *iuuat* in the context of celestial ascent. There, the philosopher describes himself as feeling divinely inspired and impelled to speak of matters never investigated by anyone before:⁵⁰

magna nec ingeniis inuestigata priorum
 quaeque diu latuere, canam; iuuat ire per alta
 astra, iuuat terris et inerti sede relictā
 nube uehi ualidique umeris insistere Atlantis. (*Ov. Met.* 15.146–9)

I shall sing of great things not investigated by the minds of earlier men and of things that have lain hidden for a long time; it is pleasing to walk among the stars on high, it is pleasing to leave behind the earth, that sluggish realm, and to ride on a cloud and stand on the shoulders of sturdy Atlas.

Enrico Flores, in his discussion of Manilius’ imitation of these lines (1995: 28–9), suggests that the poet is alluding to Ovid in this prominent place at the beginning of his work in order to express solidarity

⁴⁸ On the afterlife in the Milky Way as a ‘Pythagorean’ idea, see Capelle 1907: 37–48, esp. 39–40; more generally on astral immortality and its Pythagorean associations, see Rougier 1959: 54–98 and Burkert 1972: 357–68 (with a polemic against Rougier in 358–9 n. 41).

⁴⁹ On the music of the spheres and its association with Pythagoras, see Pease 1955–8 *ad Cic. Nat. D.* 3.27, Burkert 1972: 350–7, and Riedweg 2005: 27–30.

⁵⁰ The divine inspiration presumably issues from Apollo (cf. *rite deum Delphosque meos . . . recludam*, ‘as is just, I will reveal the god and my Delphi’, *Ov. Met.* 15.144). As Riedweg 2005: 72 points out, Pythagoras had a particularly close connection to this god, whose appearance in *Astr.* 1.19 may thus be another way of adding a Pythagorean touch to Manilius’ proem.

with his colleague, who had only recently been exiled, and to signal a kind of ‘passing of the torch’. This is possible, but it seems more relevant to me that Manilius is here, by means of the borrowing from Ovid, clearly identifying with Pythagoras, an inspired wise man who ascends to the heavens and reveals previously hidden knowledge of great importance.⁵¹ The themes of inspiration, revelation, and ecstasy run through the entire introductory section of the proem of *Astronomica* 1 (1–24), while the specific Pythagorean flavour is reinforced, as we have seen, by the mention of the music of the spheres.

As this discussion shows, ‘Pythagoreanism’ is less an influence for Manilius than an ideal. Like many of his contemporaries, the poet had some notion that Pythagoras was connected to views about cosmic order and the astral nature of human souls. He would also have associated him with specific ideas, such as the Milky Way as abode of the dead and the music of the spheres. Crucially, though, he considered him a model: a man who had done what Manilius himself was about to do, a ‘prophet of the cosmos’ (*uates mundi*), and therefore someone with whom the poet aimed to associate himself.

Magic and the Occult

As we have veered slightly from the topic of Manilius’ sources to the related question of which approaches to the cosmos the poet—explicitly or implicitly—endorses, we may consider a rather striking passage in the proem to Book 1, which has given rise to divergent interpretations. As part of his progressivist history of civilization (1.66–112), which culminates in the discovery of astrology, Manilius mentions magic as one of the *artes* developed by human beings:

ne uulgata canam, linguas didicere uolucrum,
consultare fibras et rumpere uocibus angues,
sollicitare umbras imumque Acheronta mouere,
in noctemque dies, in lucem uertere noctem. (1.91–4)

Lest I sing of well-known matters: they learned the language of birds, to consult the innards (of sacrificial animals) and to split snakes with their voices, to call up the shades and stir deepest Acheron, to turn night into day and day into night.

⁵¹ Ov. *Met.* 15.146 (*magna nec ingeniis inuestigata priorum*) is clearly a model for *Astr.* 1.6 (*hospita sacra ferens nulli memorata priorum*).

Manilius here lumps together a number of different practices, from the prophetic arts of the interpretation of birdsong, extispicy, and necromancy, to such disruptive activities as the killing of snakes through spells and the turning of day into night. With the exception, perhaps, of the first two, which could pass as comparatively benign, all these practices involve breaking the laws of nature for the benefit of the acting human being and can properly be described as (black) magic. It is therefore surprising that Manilius includes them in his catalogue of mankind's positive achievements, among such inventions as language, agriculture, navigation, commerce, and the arts of war and peace (1.85–90). In fact, the description of the magical arts concludes the first part of the poet's cultural history, which Manilius sums up with the assertion that, 'through its endeavours, ingenuity, eager to learn, conquered all' (*omnia conando docilis sollertia uicit*, 1.95). The very next step in the intellectual development of mankind is the investigation and understanding of natural phenomena, including, of course, the heavens (1.96–112).

In her discussion of the passage, Loretta Baldini Moscadi (1980*b*) comes to the conclusion that Manilius' positive attitude towards magic (which is presented as closely connected, positively propaedeutic, to astrology) can be explained through the influence of such intellectual movements as Stoicism, Hermetism, and Pythagoreanism.⁵² If human *ratio* is able to penetrate the secrets of the cosmos, then it is not surprising if human *sollertia*, clearly a related faculty, can master life on earth, from ploughing the fields to conversing with the shades. Behind this view is an unbounded optimism and belief in man's abilities, a belief that is grounded in the conviction that humans are inextricably linked to larger forces and therefore able to transcend their circumscribed terrestrial lives in ways that may appear, indeed, superhuman.

Magic and astrology were historically often linked and may on occasion have been practised by the same person.⁵³ Still, while astrology

⁵² Cf. also Liebeschuetz 1979: 126–39 on the increase of interest in magic in the late Republic and early Empire.

⁵³ Nigidius Figulus, for one, is credited not only with casting horoscopes and reviving Pythagoreanism, but also with being a *magus* ('sorcerer', Jer. *Ab Abr.* 1972, 156.26 Helm). Legislation against astrologers often included practitioners of magic as well, including in the case of Agrippa's ordinance of 33 BC (see Cass. Dio 49.43.5) and the *senatus consulta* of AD 16 (see Tac. *Ann.* 2.32 and Cass. Dio 57.15.8). Generally on restrictive measures against magic at Rome, see Beard, North, and Price 1998: 1.233–6.

drew some censure, it was typically considered an activity based on solid scientific principles and espoused, as we have seen, among others by the Roman upper classes. By contrast, an enormous social stigma attached to magic, and Manilius' endorsement is therefore striking, especially given that some of the practices mentioned by the poet—splitting of snakes, necromancy, and turning night into day—are particularly sinister. In the light of this, M. W. Dickie in a recent article (2002) suggests that lines 1.91–4 are in fact an interpolation. Among other arguments, he points out that the passage could easily be left off without giving the impression that anything is missing; that the lines are a pastiche of tags from Vergil; and, crucially, that Manilius simply would not have displayed a positive attitude towards magic. In my opinion, the last point is unconvincing: I agree with Baldini Moscadi 1980*b* that the poet's endorsement, while on the surface (deliberately?) shocking, actually fits in well with his world view as a whole.⁵⁴ As for the first argument, Dickie's observation is certainly correct, but the fact that the passage could be removed without leaving a trace does not mean that it was never there. Crucially, Dickie provides no explanation or scenario how the four lines (not suspected by any earlier editor) would have made their way into the text. There is always the anonymous interpolator to be invoked, but most interpolations are prompted by something that is already in the text, whereas, in our case, it is hard to see how, in the absence of the passage, any reader could have been reminded of the topic of magic. It is the very strangeness and unexpectedness of the lines that speak for their authenticity, according to a version of the *lectio difficilior* principle: having them in the poem certainly makes for the 'more difficult reading'.

Dickie's second point concerns the borrowings from Vergil: the author identifies four,⁵⁵ pointing out that this constitutes an especially high concentration (2002: 456) and hinting that an interpolator might have mechanically combined Vergilian tags to compose the passage. While he admits that the entire first proem is disproportionately heavy

⁵⁴ Manilius' entire history of civilization is unusual in presenting as positive a number of cultural practices (including agriculture, navigation, commerce, and warfare, 1.86–9) that in other ancient, especially Roman, treatments of the same topic are viewed as ambivalent, if not downright nefarious (cf. the literature quoted above in 3.2, fn. 34). The poet's endorsement of magic, though perhaps the most extreme example of this tendency, fits in perfectly with Manilius' general celebration of human *sollertia* as capable of conquering nature (see also 6.3 below).

⁵⁵ Cf. *Astr.* 1.91 with Verg. *G.* 3.4; *Astr.* 1.91–2 with Verg. *Aen.* 10.176–7; *Astr.* 1.92 with Verg. *Ecl.* 8.71; and *Astr.* 1.93 with Verg. *Aen.* 7.312; see Dickie 2002: 455–6.

in allusions to Vergil, he maintains that, for example, lines 4–6 manifest a much more subtle art of intertextuality, far removed from the hack-work of the presumed author of 91–4 (2002: 456–7). This kind of argument is purely subjective and hardly likely to settle the matter. It seems to me that, rather than providing a contrast, the beginning of the proem (1.1–6) instead presents an interesting parallel to our passage, a parallel that can tell us more about Manilius' ideas about man and the universe. As Dickie avows and as we have seen in 5.2, the first six lines of the *Astronomica* are replete with allusions to Vergil, and most interestingly, in our context, two of these allusions conjure up the idea of magic. By presenting himself as about to draw the stars from the sky by means of song (*carmine . . . sidera . . . deducere mundo*, 1.1–3), the poet takes on the role of a sorcerer. He does so by borrowing from a Vergilian line (*carmina uel caelo possunt deducere lunam*, 'songs can even draw the moon from the sky', Verg. *Ecl.* 8.69) that occurs in close proximity to the verse that lies behind the image of the split snakes in *Astr.* 1.92: *frigidus in pratis cantando rumpitur anguis* ('the cold snake in the meadow is split by singing', Verg. *Ecl.* 8.71).⁵⁶ Using one line from *Eclogue* 8 at the very start of the poem and another, from the same context, in his endorsement of magic, Manilius creates a connection between the two passages. He himself appears as a magician—someone who interacts, has *commercium* (cf. 2.125), with the universe—as soon as the poem begins, and then justifies this attitude later, according magic a high rank among the achievements of mankind. The use of Vergilian material in both passages enforces the point.

There is a second 'magical' allusion to Vergil at the beginning of the proem, namely, to the activity of moving forests through song (1.4–5). In the sixth *Eclogue*, this feat is ascribed to Hesiod (70–1), but it is more often associated with Orpheus, who plays an important role in Vergil's work.⁵⁷ I suggest that, through his presentation of himself as someone about to move the woods through his song, Manilius achieves a number of interrelated purposes: he keeps up the Vergilian tone of the proem; he continues the theme of magic and of his own role as magician; he aligns himself with Hesiod as the founder of didactic poetry; and he associates

⁵⁶ This method of bewitching snakes was associated with the Italic tribe of the Marsi (see Clausen 1994 *ad Ecl.* 8.71).

⁵⁷ Orpheus is mentioned in *Ecl.* 3.46 (for the first time in Latin poetry (see Clausen 1994 *ad loc.*, with reference to P. E. Knox), and in the context of moving trees), 4.55–7, 6.30, and 8.55–6, as well as in *Aen.* 6.119–20; he plays a central role in the myth of Aristaeus at the end of the *Georgics*.

himself with Orpheus. The latter was considered not only an outstanding poet but a sage knowledgeable about the universe;⁵⁸ pseudepigraphic works ascribed to him treated cosmology as well as eschatology and informed the practice of mystery cult. Just as he evokes Pythagoras, Manilius alludes to Orpheus as a kindred figure, a poet with magic powers and a deep knowledge of cosmic secrets.⁵⁹

If my reading is correct, Manilius in the short space of his first proem manages to associate himself and his work with a whole number of characters and movements on the more mystical and occult end of the spectrum of cosmological approaches: he explicitly invokes Hermes and the origin of astrology among eastern kings and priests; he alludes to Pythagoras through both the music of the spheres and the borrowings from Ovid's Pythagoras speech; he takes on the role of a sorcerer and presents magic in a positive light; and he even works in a veiled reference to Orpheus. This array attests to the poet's eclecticism and his belief that all these traditions and practices ultimately concern the same thing: the revelation of cosmic secrets to outstanding figures of near-divine abilities, who in turn pass on this sacred knowledge to mankind as a whole.

Our discussion has come a long way, from Stoic physics to magic and mysticism, but the question of the exact sources of Manilius' philosophy remains open. Many of his ideas about the universe and man's place in it are, as we have seen, at home in many different traditions, with the result that it is impossible to disentangle the individual strands and trace them back to their presumed origins.⁶⁰ While Manilius must have had his sources, one can imagine all sorts of different scenarios that would have yielded the same results: perhaps his world view came part and parcel with the astrological treatises he used; perhaps he had studied with a Stoic philosopher or immersed himself in the works of Posidonius or

⁵⁸ Both notions are combined in the cosmogonic song of the character Orpheus in Apollonius' *Argonautica* (1.496–511).

⁵⁹ The poet refers twice more to the power over nature wielded by Orpheus through his music, both times in the context of discussing the constellation Lyra, supposedly the catasterized lyre of the mythic singer (1.324–30 and 5.324–8). In 1.329–30, Manilius even ascribes to Lyra a major cosmic role: *nunc sidera ducit | et rapit immensum mundi reuolubilis orbem* ('now it is leading the stars and carries along the enormous sphere of the turning heavens'). This may be a further allusion to the music of the spheres, which was often associated with the sound of a heptachord lyre (see van Wageningen 1921 *ad Astr.* 1.329 and Zetzel 1995 *ad Cic. Rep.* 6.18).

⁶⁰ Cf. Lühr 1969: 173. The poem itself does not proclaim any intellectual affiliation, apart from the mention of Hermes and the allusions to what we could call the 'mystic tradition' in the first proem, and the polemic against Epicureanism in 1.483–531.

even Chrysippus; perhaps he had sat at the feet of Thrasyllus or another easterner familiar with the teachings of Hermes Trismegistos; or perhaps he had simply perused a few of the works of Cicero. While he himself may have combined ideas that he found in different places, it is clear that he was already heir to an eclectic cosmology that had been developed over the last three centuries BC and that was taking hold in Rome in the late first century. A.-J. Festugière describes this 'vague piety' ('piété vague') that was not associated with any particular school in the following terms:

cette religiosité diffuse . . . où l'on s'adresse à une Ame universelle maîtresse de ce grand corps, le Monde, qu'elle anime, et subsistant le plus excellement dans les astres dont les beaux mouvements réguliers en sont comme la manifestation visible, où aussi, persuadé que notre âme est une parcelle de l'Ame divine, on aspire, dès ici-bas, à se fondre dans ce Principe avant de s'y dissoudre à la mort. (1944–54: 1.12)

Festugière detects this world view (which, in a nutshell, is what I have described in 6.1) in the *Somnium Scipionis*, Vergil, Manilius, and Seneca, among others, but it is really the *Astronomica* that provides the most detailed example of this kind of cosmic religion or religious cosmology.⁶¹ Manilius' poem thus provides an excellent window into contemporary views about the universe: even if not everybody would have agreed with everything the poet said (after all, 'vague piety' is by definition vague and allows for various permutations), many would have concurred with him on many things, which is what makes the *Astronomica* such a useful source for the ways in which educated Romans at the beginning of the first century AD could think of, and speak about, the cosmos.

6.3. COSMIC TENSIONS

Manilius' world view is extremely optimistic. Human beings live in a *kosmos*, a beautiful and well-ordered whole ruled by (or identified with) a divine being. This god is well disposed towards humans, to whom he affords the opportunity to interact with him and to achieve perfection

⁶¹ The second volume of Festugière 1944–54 is a detailed examination of the history of this eclectic 'philosophie religieuse' (xiii), whose development the author traces from Plato through the Hellenistic period to the Roman Empire; see also Schmid 2005: 119–202, who points out that this 'pious view of the cosmos' ('fromme[s] Kosmos-Weltbild', 182) was part and parcel of all philosophical debates of the Hellenistic period.

and happiness through the contemplation of the workings of the heavens. This positive assessment of the state of the world is the dominant philosophy of the *Astronomica*; however, an attentive reading of the poem hints at potential contradictions within the poet's view. These tensions have to do primarily with two matters, Manilius' strict determinism and his occasional description of human cosmological research as an act of impiety. Both tendencies have the potential to destabilize the otherwise so coherent world view of the poem and point at larger problems inherent in Manilius' vision of the cosmos.

The poet's determinism, as we have seen, finds its strongest expression in the proem to Book 4. On the face of it, the attitude espoused there fits in perfectly with the ideas expressed in the rest of the poem and in particular with Manilius' presumed Stoicism and his 'hard' astrology. However, despite its status as one of the *Astronomica's* most famous passages, the proem is strangely disconnected from the rest of the poem (cf. Feraboli, Flores, and Scarcia 1996–2001 *ad* 4.1–118): there is no mention of astrology or of man's exploration of the universe; most remarkably, there are but few hints that the fates that 'rule the world' (4.14) do so with the help of the stars (see 4.105 and 115). What we get instead is a diatribe against the folly of human beings, who waste their efforts to achieve questionable goals without realizing that success or failure are simply not within their own power.⁶² As the poet demonstrates with numerous examples, everything is subject to fate, which works in ways that to incomprehending humans appear entirely random, even though Manilius assures us that from a larger perspective, events follow actual laws.⁶³

Manilius' description of the all-encompassing rule of fate raises a number of problems. Any philosophical system that espouses strict determinism has to grapple with the question of moral responsibility, and the poet explicitly engages this issue (4.108–18). In order to show that the fact that everything is fated by no means excuses the vicious or robs the virtuous of their deserved praise, Manilius points out that

⁶² See Landolfi 1994 on the proem's relation to the diatribe tradition.

⁶³ In order to make this point, Manilius momentarily distinguishes between *fortuna*, the random force that 'is carried, unstable, from one to the next without making a distinction' (*uaga per cunctos nullo discrimine fertur*, 4.97) and 'something greater' (*aliud . . . maius*, 4.98–9), namely, actual fate that lays down the laws of our lives: everything appears to be governed by fortune, while, in reality, fate is in charge. Elsewhere in the poem, Manilius uses *fortuna* and *fatum* as synonyms; cf. Lühr 1969: 129–33, who lists all uses of *fatum* and *fortuna* in 179–83.

poisonous herbs are blamed and tasty foods find favour even though their qualities result from fate rather than choice. The same principle, he maintains, applies to human actions; indeed, the very fact that they are caused by the heavens makes good deeds more praiseworthy and wicked ones more hateful.⁶⁴

The question that Manilius does not answer, however, is how human beings are supposed to live their lives in the light of the fact that everything is fated. Once they have stopped worrying and quit the endless race for ever more elusive goods, what are they to do? It has been suggested that Manilius is advertising a kind of Stoic *amor fati* ('love of fate'), the idea that people ought to embrace their fate and find fulfilment by living in agreement with the unrolling of events predestined by divine providence.⁶⁵ However, if the poet's message is (to borrow Seneca's famous words) *ducunt uolentem fata, nolentem trahunt* ('fate leads the willing, drags the unwilling', *Ep.* 107.11), he does not make it explicit.⁶⁶ All he tells human beings is that, from birth to death, their entire lives are predetermined; no coping strategies are offered.

Given Manilius' views as expressed elsewhere in the poem, we might expect that he would advise human beings to spend their lives studying the stars, in order to understand those iron laws that govern their lives and to achieve that assimilation to the divine of which, as humans, they are capable. However, within the context of the fourth proem, such a suggestion would make little sense. If everything is predetermined, you cannot persuade someone to become an astrologer (or, for that matter, to stop worrying): if he or she is fated to do so, it will happen; if not, it won't. Manilius' determinism thus calls into question his beliefs about the abilities and calling of man (cf. Neuburg 1993: 276–82): what is the point of encouraging human beings to do their utmost to become like

⁶⁴ This argument has not endeared Manilius to his more philosophically minded readers; see, e.g., A. A. Long, who judges that the poet 'blandly attributes human vice and virtue alike to the sky without seriously facing problems about human responsibility' (1982: 187). It seems, though, that Manilius is interested less in individual responsibility and free will (i.e., the question whether what people do is really 'up to' them) than in society's justification in punishing and rewarding human actions. His point is that the rule of fate does not do away with the traditional mechanisms for apportioning praise and blame, reward and punishment; in fact, these mechanisms are themselves part of fate (*hoc quoque fatale est, sic ipsum expendere fatum*, 'this too is fated: to be punished for fate itself', 4.118; on this line, see further fn. 67 below).

⁶⁵ For this view, see Salemme 2000: 46–56.

⁶⁶ The laconic *sors est sua cuique ferenda* ('everybody must bear his own fate', 4.22) is a statement of fact rather than an exhortation to a particular ethical attitude.

god if the intellectual exertion necessary to this end is not in fact something of which we are in control?

It would be possible to salvage the unity of Manilius' thought by describing his position as follows. Everything is fated, including the cosmic god's willingness to reveal himself to human beings; the poet's being called upon to act as a medium for this revelation; the learning process (interactions with the teacher and didactic harangues included) of those chosen to achieve knowledge of the divine; and (presumably) their subsequent 'becoming like god'. As the poet puts it at the end of the second proem, *hoc quoque fatorum est, legem perdiscere fati* ('this itself is part of fate, to learn the law of fate', 2.149).⁶⁷ Such a stance would fit in with the strict determinism of the fourth proem and with Manilius' astrological views, according to which people's *studia*, their pursuits and professions, are dictated by the stars. However, it stands in contrast to the optimism of the poet's pedagogy as expressed especially in the two exhortations to the student in Book 4, as well as to his claim that all human beings are capable of understanding and interacting with the divine. What this contradiction points to, then, is the question of man's own initiative. To which extent is the gaining of knowledge about the universe a human being's own doing? And would it ever be possible to win such knowledge even *without the consent* of that divine cosmos with its inexorable laws? Of course, according to Manilius' official philosophy, it most emphatically would not. However, if we read the *Astronomica* closely, we on occasion get the impression that human reason is able not only to interact with, but even, as it were, to conquer the divine.

The repeated depiction of intellectual achievement, especially that of gaining knowledge about the cosmos, as an act of violence and possible impiety is the second source of tension within the philosophy of the *Astronomica*.⁶⁸ This subtle motif begins in the first proem, where the

⁶⁷ This verse occurs in the context of Manilius' claim that only a *minima turba* has been granted knowledge of the workings of the universe (2.143–8)—the only hint that he considers his student body to be restricted by superior powers. Note that line 4.118, *hoc quoque fatale est, sic ipsum expendere fatum*, which sounds similar and has sometimes been taken to refer to the poet's own 'fated' exposition of fate, in its context probably has to do rather with criminals whose crimes as well as whose punishments proceed according to fate (thus: 'this too is fated: to be punished for fate itself'); see my discussion in Volk 2002: 218 n. 41 and fn. 64 above.

⁶⁸ I have treated this topic in Volk 2001; cf. also Delatte 1935 (on the depiction of cosmological study as an act of violence in other ancient texts), Vallauri 1954: 149–51 (on similar issues in the Hermetic Corpus), Lühr 1969: 161–2 (on the tension between *ratio* and *fatum* in Manilius), and Hadot 2006: 91–229 (on the difference between a 'Promethean' and an 'Orphic' approach to nature).

poet's self-representation as a sorcerer about to draw the stars from the sky has, as we have seen, a whole number of connotations. One of the impressions created is surely that of an undue and sinister disruption of the cosmic order: as we learn later in the poem, the very immutability of the stars is the proof and guarantee of both the divinity of the universe and the infallibility of astrology; removing them from the firmament thus constitutes a severe interference with the workings of the cosmos.

Now, obviously, *sidera deducere mundo* is just Manilius' metaphor for treating celestial phenomena in his poetry, and he is not announcing any actual nefarious designs on the heavenly bodies, in the manner (say) of the Thessalian witches. Still, metaphors carry associations and help establish themes, and just as, for example, the recurring image of the heavenly journey helps keep up Manilius' theme of near-mystical elation, the magical metaphor at the beginning of the poem initiates a subtext of violence that continues through the rest of the work, being taken up again, in the form of tantalizing hints, as early as the poet's history of astrology.⁶⁹ As we have seen, Hermes is credited with granting knowledge of this art to human beings; however, Manilius' description of how this 'gift of the gods' (26) came about is anything but straightforward:

quem [sc. mundum] primum interius licuit cognoscere terris
 munere caelestum. quis enim condentibus illis
 clepsisset furto mundum, quo cuncta reguntur?
 quis foret humano conatus pectore tantum,
 inuitis ut dis cuperet deus ipse uideri?
 tu princeps auctorque sacri, Cyllenie, tanti. (1.25–30)

Earth was first granted more profound knowledge of the universe through the gift of the gods. For who, if they were hiding it, would have stolen heaven, by which everything is governed? Who, born with a human mind, would have attempted so much that he would have wished to appear a god himself, against the will of the gods? You, Cyllenian [i.e., Mercury], are the founder and bestower of such a great and sacred activity.

At first glance, the poet's point seems clear enough: human beings cannot 'steal the heavens' and 'appear like god', if the gods do not allow it; in other words, understanding the workings of the cosmos and thus achieving the desired assimilation to the divine is a gift and cannot be brought about by force. Luckily, the gods are well disposed,

⁶⁹ See the thought-provoking discussion of Valvo 1978, with Flores 1982: 117–20 and Volk 2001: 108–10.

and Hermes, one assumes, acts simply as their representative in distributing the boon that actually issues from the divinity as a collective (compare the plural in *munere caelestum*, 1.26).

Or does he? The conceit of ‘stealing heaven’ (highlighted through the redundant expression *clepsisset furto*⁷⁰), which is perhaps not so different from the idea of drawing the stars from the sky, calls to mind Hermes’ traditional role as a master thief and raises the possibility that the god—a well-known friend and benefactor of mankind both in Greek religion and in his manifestation as the Egyptian Thoth—might have himself ‘stolen heaven’ from the hiding and unwilling gods, that is, appropriated forbidden astrological knowledge and handed it on to humans. The two questions in lines 1.26–8 would then not be merely rhetorical (‘Who would have . . . ? Nobody.’), but perfectly serious and leading up to line 1.30 as the answer (‘Who would have . . . ? Hermes did.’). This interpretation is enabled also by the inherent ambivalence of the Latin ablative absolute: it is simply impossible to tell whether *condentibus illis* (1.26) and *inuitis . . . dis* (1.29) are counterfactual (‘if they had hidden it’; ‘if the gods had been unwilling’) or concessive (‘even though they were hiding it’; ‘even against the will of the gods’).

So is Hermes the representative of divine good will towards man, or is he a revolutionary who in a Promethean act of disobedience steals (knowledge of) the cosmos from the begrudging gods in order to benefit mankind?⁷¹ The first interpretation fits in with Manilius’ philosophy as a whole, which stresses both that the divine wishes to be revealed (so the gods are not begrudging) and that, conversely, if it did not wish to be known, attempting to force a revelation would be sacrilegious and, presumably, unsuccessful.⁷² It must also be admitted that taking Hermes to be the thief of the *mundus* makes it difficult to account for the ‘human mind’ (cf. *humano . . . pectore*, 28) of the figure who dared defy the gods—unless we assume that Manilius is following a version by

⁷⁰ On *clepsisset* and its connotations, see Flores 1982: 119.

⁷¹ Valvo 1978: 123–8 points out parallels between Manilius’ Hermes and the Prometheus of Aeschylus’ play.

⁷² Contrast 4.922, *quis putet esse nefas nosci, quod cernere fas est?* (‘Who would believe that it is a sacrilege to get to know what it is right to see?’) with 2.127–8, *quis neget esse nefas inuitum prendere mundum | et uelut in semet captum deducere in orbem?* (‘Who would deny that it is a sacrilege to take hold of heaven against its will and, having captured it, lead it down onto the earth as onto one’s own level?’; for the interpretation of these two lines, see Volk 2001: 92–106). Since the *mundus* willingly displays itself to humans, it is *fas* to investigate it; however, if the *mundus* ever were unwilling, ‘taking’ (‘stealing’) it would be *nefas*.

which Hermes/Thoth was born a man and deified only later on.⁷³ If the second interpretation is thus less likely or perhaps even to be rejected entirely, the text as it stands—with its ambiguities and its strange metaphor of cosmic theft—nevertheless evokes it as a possibility, however fleeting. In his story of Hermes, Manilius thus makes at least passing reference to a different paradigm of acquiring knowledge about the universe, one that involves daring, cunning, and the overcoming of divine unwillingness and resistance.

This paradigm is alluded to again and again in the *Astronomica* through Manilius' use of sometimes surprisingly violent language in his description of man's research into and understanding of the cosmos. Thus, the early priests 'bound the god with their dutifulness' (*officio uinxere deum*, 1.48) and 'took hold of the stars that rule by silent laws' (*deprendit* [sc. *experientia*] *tacitis dominantia legibus astra*, 1.63). While the violence in these faded metaphors is comparatively muted, it is more palpable at the end of the first proem, where the 'victory' of human *ratio* is described as a veritable conquest of heaven and a defeat of the gods: 'reason scaled heaven' (*caelum ascendit ratio*, 1.97) and 'snatched from Jupiter his bolt of lightning and power of thunder' (*eripuitque Ioui fulmen uiresque tonandi*, 1.104).⁷⁴ The image evoked is that of the gigantomachy, with the earthborn giants attempting to invade the realm of the heavenly gods and to wrest their power from them.⁷⁵ It recurs in the fourth book of the *Astronomica*, where Manilius assures the student that his task is to 'scale heaven' (*scandere caelum*, 4.390) and to 'take possession of the cosmos' (*mundoque potiri*, 4.392); the latter idea recurs with greater brutality in 4.884, 'we take possession of the captured cosmos' (*capto potimur mundo*; cf. 2.127–8). Generally speaking, in the eyes of Manilius, man, uniquely endowed to impose his will on all aspects of creation, naturally extends his imperialist attitude to the sky as well. Note the tone of aggression in the following passage:

⁷³ See Flores 1982: 118 + n. 33, with reference to Gundel and Gundel 1966: 10–11 n. 1, as well as Fowden 1986: 27–8.

⁷⁴ Cf. also the description of the powers of *ratio* in 1.541–3: *ratio, cui nulla resistunt | claustra nec immensae moles caeciae recessus; | omnia succumbunt, ipsum est penetrabile caelum* ('reason, to which no barriers offer resistance nor mighty matter nor dark hiding-places; everything yields (to it), and heaven itself can be penetrated'). A translation of this passage was chosen by the Container Corporation of America in 1961 for an ad in their series 'Great Ideas of Western Man'.

⁷⁵ On the gigantomachy as an established metaphor for impious intellectual endeavours, especially in the field of natural philosophy, see Volk 2001: 102–6, with further references. I have termed this trope 'intellectual gigantomachy'.

secessit in urbes,
 edomuit terram ad fruges, animalia cepit
 imposuitque uiam ponto, stetit unus in arcem
 erectus capitis uictorque ad sidera mittit
 sidereos oculos propiusque aspectat Olympum
 inquirique Iouem. (4.903–8)

He [man] moved into cities, tamed the earth for (bearing) fruit, caught animals, and imposed a pathway on the sea; he alone stood with his head lifted up and, victorious, lifts his starlike eyes to the stars and looks closer at Olympus and asks for Jupiter.

God may invite man into heaven, but as these examples show, it is just about conceivable that man may show up uninvited.

What are we to make of this apparent contradiction in Manilius' world view? It certainly has to be admitted that the instances of 'impious cosmology' are few and far between; that they are mostly fairly subtle; and that they often tend to be neutralized or softened by their immediate surroundings (see Volk 2001: 112–13). Thus, for example, the description of the priests' 'binding' of the god is followed by the remark that 'the presence of the powerful divinity itself inflamed their pure intellects' (*quibus ipsa potentis | numinis accendit castam praesentia mentem*, 1.48–9), which puts agency firmly back into the hands of the divine; at 4.884–5, the martial undertone of *capto potimur mundo* is diffused by the reminder that the cosmos is actually our parent and that we are a part of it. Still, the sense of intellectual violence, or at least of human initiative and independence from the divine, is in my opinion definitely there, an undercurrent that runs through the *Astronomica* and that calls for an explanation. In 2001, I attempted to account for it with the have-one's-cake-and-eat-it-too principle, suggesting that Manilius, as it were, gets carried away by his metaphors and mythological paradigms, wishing to employ at the same time such not necessarily compatible notions as 'cosmic self-revelation', 'Hermes the master thief', 'intellectual gigantomachy', and 'strict determinism' (Volk 2001: 113–14). While I still believe that this hypothesis goes a long way towards explaining the eclecticism and occasional incoherence of Manilius' ideas, it now seems to me that the self-contradictions discussed in this section point to larger tensions that arise from the very way in which Manilius has constructed his cosmos, a universe in which the above and the below are inextricably linked, but where the nature of this link is not always as obvious as it would first appear. This topic will concern us further in the concluding chapter.

Chapter 7

The Universe and Us

Throughout the book, we have seen how Manilius in composing the *Astronomica* makes use of material from a number of different intellectual trends and traditions. In many cases, we know or can surmise that he reflects mainstream ideas that were shared by most educated Romans of his period or were found in the works of contemporary or earlier writers on the same or similar subjects. At least sometimes, however, the poet appears to present an original or at least idiosyncratic approach, and, when he does so, his procedure calls for interpretation.

As far as astronomy is concerned, Manilius in *Astronomica* 1 depicts the cosmos as it was generally perceived in his day: a two-sphere universe with the stable earth in the middle and the firmament of fixed stars as the revolving outer sphere. His description of the constellations and celestial circles largely follows that of Aratus' *Phaenomena*, the standard astronomical textbook of antiquity. Manilius is especially keen on stressing the inherent order and beauty of the universe—on showing that it is, indeed, a *kosmos*—which is apparent in particular from the absolutely regular revolutions of the fixed stars. I have suggested that it may be for this reason that the poet, like Aratus before him, gives short shrift to the planets, whose seemingly erratic movements (though of great significance to astrology) cannot easily be explained within the geocentric system.

Since all earlier sources are fragmentary, it is difficult properly to evaluate Manilius' extensive (if not comprehensive) discussion of genethliological astrology in Books 2–5 in the context of the history of this 'science'. Nevertheless, comparison with later texts shows that his treatment of the zodiac and paranatellonta is by and large typical, except for a number of idiosyncracies, many of which have to do with a (deliberate?) downplaying of the role of the planets (for example, divine guardians of the signs rather than planetary houses). This tendency fits in with the absence of a separate discussion of the planets from the poem as it has come down to us; as I hope to have shown, the planets could

not have been treated in Books 1–5, and, if Manilius ever talked about them (or intended to do so), this could only have happened in a later book, either now lost or never written. In my opinion, the poet's reluctance to engage with the planets has to do with his method of exposition as described in the pedagogical digression of 2.750–87: he describes single elements of the cosmos in isolation, without ever showing them combined, in a specific situation or state of astrological *mixtura*. Such a 'mixture' would be brought about primarily by the planets, but, since these do not feature in Manilius, there is—unlike in other astrological authors—no discussion of more complex scenarios, that is, of individual (real or imagined) horoscopes. We may again surmise that the poet prefers the simplicity and order of his 'unmixed' cosmos to the infinite and indescribable complexity of a universe in motion, in which the planets with their multiform movements make for myriad combinations that change from one second to the next.

As for the vexed question of Manilius' date, I believe that I have demonstrated that the poem (or at least Books 1–4) was written during the reign of Augustus. It is very much a product of its time, in which astrology was not only fashionable among lower classes and elite alike, but also central to imperial propaganda. Augustus shrewdly advertised his favourable horoscope and employed his birthsign Capricorn as a kind of logo, and Manilius participates in the same discourse by repeatedly connecting the emperor to the stars, in terms of both his horoscope and his anticipated astral immortality. Apart from these complimentary, if conventional, references to the emperor, there is little in the *Astronomica* that would allow us to construct a political stance for Manilius, a poet at any rate more interested in the larger cosmic perspective than the specifically Roman one. I also remain unconvinced by attempts to explain the supposedly unfinished state of the poem, or its (intentional?) obscurity, with the crackdown on astrology in the late Augustan and early Tiberian periods. Of course, ultimately all questions concerning the actions of the historical figure Manilius—rather than the interpretation of his poem—are moot, since we have no information whatsoever about the man and his personal circumstances.

As a work of poetry, the *Astronomica* inscribes itself in the literary tradition in a number of ways: by being part of (and thus actively shaping) the genre of didactic poetry; by engaging in an intertextual dialogue with its poetic predecessors, especially the works of Vergil, Aratus, and Lucretius; and by availing itself of the 'Callimachean' language of Roman poetics. We have seen that Manilius cleverly

manipulates this rhetoric for his own purposes, purportedly beating all other poets in their quest for perfect originality on account of having been charged with his poetic task by his very subject matter, the divine universe itself. By presenting himself as *uates mundi*, Manilius blends poetics and cosmology, transcending the concerns of ordinary, terrestrial poets by figuratively rising to the stars and communicating with the heavens themselves.

Manilius' representation of his role as a poet is part of his general view of the universe and of man's place in it. His philosophy is typical of the kind of syncretistic cosmic religion that arose in the Hellenistic period and combines Platonic, 'Pythagorean', Stoic, Hermetic, and generally 'mystical' ideas about the divinity of the universe and the ability—or, indeed, calling—of human beings to understand its workings. While Manilius' world view has often been described as primarily and exclusively Stoic, and while a large number of his ideas can be matched in Stoic writings, he could also have found many or even all of them elsewhere. Given that we know nothing about the poet's training or sources, it is thus advisable not to ascribe to him any particular philosophical affiliation and instead simply to view his work as representative of cosmological notions that were mainstream at his time and were shared, with certain variations, by more than one philosophical school and intellectual movement.

The belief that the divine universe wishes to reveal itself to human beings and that gaining knowledge about the cosmos brings about a union with the divine is at the centre of the *Astronomica* and has consequences for our interpretation of the poem, in terms of both the intra-textual interaction between teacher and student and the way in which the text affects its actual readers, that is, us ourselves. In the teaching speech that makes up the poem, Manilius instructs his student in the intricacies of astrology. However, is the poet, even within the fiction of the text, really training an astrological practitioner, someone who will be able to cast horoscopes and make predictions? In addition to the fact that, as we have seen, the student is not given enough information for this purpose, the poet's rhetoric, too, points in a different direction. References to the student's future career as an astrologer are rare and extremely vague (cf. esp. 2.448–52 and 3.393–4), while Manilius insists again and again, especially in the two exhortations to the student in Book 4, that what he is disclosing is 'heaven', the 'universe', or 'god' in general. To learn about astrology is really to learn about the cosmos; the type of knowledge envisaged is presented in terms of theory

(in the original sense of ‘vision, contemplation’) rather than practice; and the student’s contemplation of the heavens as brought about by the teacher is what leads to his ‘exchange’ with god and thus to the fulfilment of his capacities as a human being.

We have seen above (5.1) that, as a didactic poem, the *Astronomica* functions like a coffee-table book, which the reader picks up to delight in the idea of astrology without bothering overly much about its practical details. Now it turns out that something similar is going on inside the poem, where the student himself, though obviously the recipient of much nitty-gritty instruction, is ultimately supposed to reach a vision of the cosmos as a whole.¹ This makes the intra-textual addressee and the extra-textual reader more similar than one would at first have assumed: for both of them, the technical details of Manilius’ exposition are not an end in themselves but serve an ulterior purpose. By revealing the mechanisms of the heavens, the poem brings about that larger knowledge of the cosmos that equals our approximation to the divine. That Manilius views his work as having this effect can be inferred from the following passage from the end of Book 4:

iam nusquam natura latet; peruidimus omnem
 et capto potimur mundo nostrumque parentem
 pars sua perspicimus genitique accedimus astris. (4.883–5)

Already nature is no longer hidden anywhere. We have seen it all in detail and take possession of the captured cosmos and understand our father, of whom we are a part, and approach the stars, from which we were born.

At this very moment (*iam*)—as a result, apparently, of the poet’s preceding discussion of the zodiac (cf. Salemme 2000: 35)—there are no more secrets in nature, and both the student and we as readers are able fully to understand the workings of the cosmos.² Thus, we are able to rise to the stars and interact with the divine. Thanks to Manilius’ poem, we have become like god.

¹ Manilius’ stress on theory rather than practice provides yet another reason for his neglect of the planets: these play a crucial role in the casting of horoscopes, but the contemplation of cosmic order is mostly associated with the regular movements of the fixed stars.

² The passage (cf. also 1.96–8) owes something to the ‘epiphany’ in Lucr. 3.14–30, esp. 29–30 (*sic natura tua ui | tam manifesta patens ex omni parte relecta est*, ‘thus nature has been uncovered, revealed, and made manifest everywhere through your [i.e., Epicurus’] power’), only that Lucretius credits his master Epicurus with the revelation, while Manilius, at least implicitly, appears to ascribe it to his own agency (note that in Lucr. 1.948–50 and 1115–17, it is poet himself who aims to bring about the student’s *perspicere* and *peruidere* of nature).

If it is thus the purpose (as well as, according to Manilius himself, the effect) of the *Astronomica* to reveal the secrets of the divine universe and lead us to the heavens, this enterprise is not without its problems. As we have seen, the poem is full of contradictions. Some of these can be explained with what I have termed the have-one's-cake-and-eat-it-too principle, that is, Manilius' willingness to use ideas drawn from different backgrounds without attempting to reconcile them. For example, the story of Phaethon, told as one of several *aitia* for the Milky Way (1.735–49) and then again apropos of the ecliptic signs as part of the argument that there is constant change in the world (4.834–7), implies that there is a possibility of the disruption of cosmic order. In particular, it hints at the Stoic doctrine of *ἐκπύρωσις* ('conflagration'), the belief that the universe is periodically destroyed through fire and then reconstituted.³ This clearly contradicts Manilius' assertion that 'heaven remains unchanged and preserves all its characteristics' (*at manet incolumis mundus suaque omnia seruat*, 1.518) and that 'it will always be the same because it always was the same' (*idem semper erit quoniam semper fuit idem*, 1.521). Since the unchangeability of the heavens is at the heart of Manilius' cosmology, it appears that, in using the Phaethon myth, he is momentarily 'dipping into' a different kind of discourse (and, presumably, using a different kind of source), without meaning to invalidate or call into question his beliefs as expressed elsewhere.⁴ The same goes for the poet's depiction of the antipodes as covered in darkness when it is day in the northern hemisphere (1.242–5): the use of this topos peacefully coexists with Manilius' general awareness that the heavenly bodies, including the Sun, move from east to west and not from north to south.

It is thus to a certain extent Manilius' eclecticism, his readiness and ability to combine ideas from different traditions, that accounts for the lack of conceptual coherence found in the *Astronomica*. However, as has

³ The doctrine of *ἐκπύρωσις* is alluded to also in 5.209–12, apropos of the destructive effects of the rising of Sirius.

⁴ Boll 1894: 225–8 maintains that Manilius, as a presumed Stoic (and follower of Posidonius), cannot fail to believe in *ἐκπύρωσις*; he therefore suggests that, when the poet speaks of the eternity of the *mundus*, he is referring not to the heavens, but only to the divine *πνεῦμα*, which survives the conflagration. As a brief look at the context shows, however, the poet is at this point concerned with the very immutability of the heavenly bodies, which he uses as part of the argument from design against Epicureanism. That Boll is forced to settle on a clearly wrong interpretation of the text shows the pitfalls of assuming that Manilius is an orthodox adherent of one particular school of thought (or even that he is coherent within the *Astronomica*): as far as his belief in the eternity of the cosmos is concerned, Manilius is, for once, definitely not a Stoic.

already partly become clear in the preceding chapters, many of the poem's contradictions point to one main unresolved tension within the poet's world view, between what we might call the cosmic perspective, on the one hand, and the human perspective, on the other. In Manilius' universe, where the stars act as agents of fate according to the principles of 'hard' astrology, power is exerted in a top-to-bottom movement. The heavens determine all that happens on earth, and everything terrestrial and human is thus secondary to the primary causes in the realms above: terrestrial circumstances faithfully mirror the situation among the stars, and man is a microcosm of the great god that is the universe. On earth as it is in heaven—this is the cosmic perspective.

As we have seen, however, Manilius on numerous occasions throughout the *Astronomica* adopts a human perspective, hinting at the existence of bottom-to-top actions. His depiction of the signs of the zodiac and their relationships in all-too-human terms; his reliance on catasterisms (a classic bottom-to-top event) to account for the characteristics of the signs; and his likening of the *res publica* of stars to the social order of Rome, as well as his description of cosmic sympathy with expressions usually applied to human communities—all these would seem to imply that the heavens are actually modelled on what is happening on earth, not the other way around. Similarly, human beings, who according to the cosmic perspective should be at the receiving end of fate, with their own responsibility reduced to being praiseworthy or blameworthy for their wholly predetermined character, are from time to time presented as showing initiative and achieving results beyond what one would have thought possible in Manilius' universe. Using human reason to gain knowledge about the cosmos—though in general an activity encouraged by the divine—on occasion takes on the characteristics of an act of aggression or impiety, expressed in the image of 'scaling heaven', another poignant expression of bottom-to-top agency. Finally, the anticipated astral immortality of Augustus likewise threatens to disrupt the 'on earth as it is in heaven' principle, as the emperor will continue his position of power once he is among the stars. He thus serves as the prime example of a human being who actually changes the status quo within the heavens themselves.⁵

⁵ This explains why Augustus is invoked at the end of Book 4, where his future apotheosis is used—somewhat artificially—to justify human enquiries into the heavens: man can rise to the sky, either intellectually or, in rare cases like that of the emperor, by becoming a god.

All these examples point to one central dilemma, central not only to the *Astronomica* but to cosmology in general: to what extent is the universe like us, like things as we know them from life on earth? Or rather, to what extent do we have to think and speak of the universe as being like us, simply because we lack the concepts through which we could imagine, or the words with which we could describe, a world completely alien from ours? Making use of Freudian terminology, Jens Pfeiffer points to the inherent narcissism of cosmological theory, the fact that we always project ourselves onto the universe, appropriating what is out there by thinking that it is like what we already know.⁶ Once such a theory—for example, astrology—is in place, it may well pretend that things are the other way around, that it is we who are like the universe, with human beings subject to cosmic forces and our fates the result of the constellation of heavenly bodies. Ultimately, though, we humans have created the cosmos in our own image and therefore ourselves define our interactions with our own creation.

To Manilius, of course, such a constructionist view of cosmology is anathema, and he condemns the astronomical poets according to whose songs ‘earth has made up heaven, even though it depends on it’ (*terraque composuit mundum, quae pendet ab illo*, 2.38). He explains the mirroring effect between above and below with the influence of the former on the latter and ascribes the daring intellectual feats of human beings to the invitation and instigation of the *mundus* itself. Still, on occasion he simply cannot, or is unwilling to, contain the wish to ‘make up heaven’ himself, thus allowing his poem to appear contradictory, in a way that simply cannot be resolved. While the poet, for the most part, is the pious *uates mundi* who sings for, and at the behest of, *sidera* and *mundus* (2.141–2), he is also, on occasion, the impious magician who manipulates *sidera* and *mundus* for his own benefit and that of his human audience (1.1–4). If the *Astronomica*, then, effects in us the contemplation of the divine universe, we should be aware that this beautiful and orderly cosmos at which we gaze in elation has been designed by none other than Manilius himself.

⁶ See Pfeiffer 2001: 25–6. Generally on anthropocentrism and anthropomorphism in science, see Guthrie 1993: 152–76 (with ample references to earlier literature) and Kennedy 2000 (with special reference to Lucretius).

APPENDIX

Outline of the *Astronomica*

Book 1

- 1.1–117 Proem
1–24 Announcement of topic, reflection on the poet's task
25–65 History of astrology
66–112 History of civilization
113–17 Repeated announcement of topic, wish for success
- 1.118–254 The universe
118–21 Introduction
122–46 Origin of the universe: list of theories
147–66 Shape of the universe: the four elements and their natural places
168–203 Central position and 'suspension' of the earth
204–46 Sphericity of the earth
247–54 Coherence of the universe, which is governed by *uis animae diuina*
- 1.255–560 The stars
255–6a Introduction
256b–74 The zodiac
275–372 Northern signs
373–455 Southern signs
456–73 Shape of the constellations
474–531 Regularity of the stars' movement, which proves the divinity and immutability of the universe
532–8 Conclusion of the discussion of the fixed stars
539–60 Dimension of the sky
- 1.561–804 The celestial circles
561–3 Introduction
566–602 Parallels (arctic and antarctic circles, equator, tropics)
603–30 Colures
631–65 Movable circles (meridian, horizon)
666–804 Oblique circles (zodiac, Milky Way)
(684–804 digression on the origin of the Milky Way and its function as a dwelling-place for blessed souls)
- 1.805–8 The planets

- 1.809–926 Comets
 809–16 Introduction
 817–66 Theory 1: comets as fiery exhalations of the earth
 867–73 Theory 2: comets as lesser stars, attracted and then ejected by the sun
 874–926 Theory 3: comets as divine warnings of impending doom
 (905–26 the Civil Wars and achievements of Augustus)

Book 2

- 2.1–149 Proem
 1–48 History of hexameter poetry
 49–59 Originality claim
 60–135 The divine cosmos and man's ability to understand it
 136–49 Repeated originality claim
- 2.150–269 The zodiac: characteristics of the signs
 150–4 Masculine and feminine
 155–7 Human and animal
 157–96 Single and double
 197–202 'Backward' and straight
 203–22 Diurnal and nocturnal
 223–33 Aquatic, terrestrial, and amphibious
 234–43 Fertile, infertile, and intermediate
 244–55 Running, standing, sitting, and lying
 256–64 Disfigured and whole
 265–9 Vernal, estival, autumnal, and hiemal
- 2.270–692 The Zodiac: aspect and other relationships
 270–2 Introduction
 273–432 Aspect (trigons, squares, hexagons, opposition)
 433–52 Digression: divine guardians of the signs
 453–65 Digression: *melothesia*
 466–519 'Seeing', 'hearing', 'loving', and 'tricking' signs
 520–692 Enmities and friendships of the signs
- 2.693–749 The Zodiac: *dodecatemoria*
 693–737 *dodecatemoria*
 738–49 '*dodecatemoria* of *dodecatemoria*'
- 2.750–87 Digression on the didactic method
 750–4 The poet's method
 755–71 Simile 1: children who learn to read and write
 772–87 Simile 2: the building of a city

- 2.788–970 The fixed circle of the observer
 788–840 The cardinal points
 841–55 The quadrants
 856–970 The *dodecatropos*
- Book 3**
- 3.1–42 Proem
 1–4 Originality claim
 5–30 Rejection of other topics as too easy
 31–42 Difficulty of the poet's topic; the audience can expect truth but not beauty
- 3.43–202 The lots
 43–95 Introduction
 96–159 Significance of the individual lots
 160–202 How to find the Lot of Fortune
- 3.203–509 How to calculate the ascendant
 203–17 Importance and difficulty of the task
 218–46 Rejection of the *uulgata ratio*
 247–74 Necessity of creating a fixed hour
 275–300 Rising and setting times of the signs at 'Alexandria'
 301–442 How to calculate rising times for all latitudes
 443–82 How to calculate the increase of daylight hours from the winter to the summer solstice
 483–509 Another method for calculating the ascendant (the *uulgata ratio* in disguise)
- 3.510–59 Chronocrators
 510–13 Introduction
 514–36 System 1
 537–59 System 2
- 3.560–617 Determining the length of life
 560–4 Introduction
 565–80 Number of years granted by each sign
 581–617 Length of life determined by the place of the Moon in the *dodecatropos*
- 3.618–82 The tropic signs

Book 4

- 4.1–121 Proem
 1–22 The world ruled by fate
 23–68 Example of Roman history
 69–107 Additional examples
 108–18 Determinism does not prevent the apportioning of praise or blame for human actions
 119–21 Transitional passage
- 4.122–293 Character imparted on the native by the individual signs
- 4.294–386 The decans
 294–309 Introduction
 310–62 The individual decans
 362–386 Decans account for greater complexity of nativities
- 4.387–407 First exhortation of the frustrated student
 387–9 The student's complaint: difficulty of the subject matter
 390–407 The poet's answer: the object of study is nothing less than (union with) god
- 4.408–501 *Partes damnandae*
 408–29 Introduction
 430–43 Difficulty of treating this topic in verse
 444–97 *Partes damnandae* of all signs
 498–501 Conclusion
- 4.502–84 Individual degrees of the zodiac
- 4.585–817 Zodiacal Geography
 585–695 Description of the world
 696–710 Different parts of the world ruled by different signs
 711–43 National differences
 744–806 Actual exposition of zodiacal geography, sign by sign
 807–17 Conclusion
- 4.818–65 Ecliptic signs
- 4.866–935 Second exhortation of the frustrated student
 866–72 The student's complaint: nature is hidden
 872–935 The poet's answer: the universe (macrocosm) wishes to reveal itself to man (microcosm)

Book 5

- 5.1–29 Proem: instead of concluding his journey here, the poet will go on to treat the paranatellonta
- 5.32–709 Paranatellonta
(538–618 Andromeda myth)
- [Lacuna]
- 5.710–45 Stellar magnitudes
(beginning of discussion lost)
- 710–17 Stars of the 3rd through 6th magnitude
- 718–33 Stars of the smallest magnitude visible only in really dark nights
- 734–45 Simile: the *res publica* of stars

Glossary of Astronomical and Astrological Terms

- aspect** The relationships among points on the *zodiac* (and the *signs* and *planets* found there) that are situated at specific angles from one another. The four aspects are *opposition* (points diametrically opposed), *trine* (points at the corner of an equilateral triangle or *trigon*), *quartile* (points at the corners of a *square*), and *sextile* (points at the corners of a *hexagon*).
- astrology** The practice of making predictions about the future based on the arrangement of the heavenly bodies. Astrology can be *strong* (the stars predict the future in every detail) or *weak* (the stars only point to tendencies and possibilities), *hard* (the stars are causes for terrestrial events) or *soft* (the stars are merely signs). *Mundane* astrology makes predictions about either the whole world or entire countries and peoples, while *individual* astrology concerns itself with individuals; the latter can be divided in *genethliological* astrology (predictions about an individual's whole life based on the arrangement of heavenly bodies at birth) and *katarchic* astrology (predictions about a specific enterprise).
- ascendant** See cardinal points.
- atbla** See lots.
- birth chart** The arrangement of the heavenly bodies at the moment of a person's birth as determined by an astrologer (also called *nativity* or *horoscope*), often presented in diagram form.
- cardinal points** The four most significant points (also called *centres*) on the *fixed circle of the observer*. These are the *horoscopus* or *ascendant* (ASC), the point of the *zodiac* that is rising over the horizon in the east; the *midheaven* or *medium caelum* (MC), the point where the *zodiac* reaches its culmination; the *occusus* or *descendant* (DESC), the point of the *zodiac* that is setting in the west; and the *lower midheaven* or *imum caelum* (IMC), the lowest point of the *zodiac*.
- castasterism** The change of a person, animal, or object into a heavenly body or constellation, sometimes viewed as a kind of apotheosis.
- centres** See cardinal points.
- chronocrators** 'Time lords': celestial features (in Manilius, *signs of the zodiac*) that govern individual sections of a person's life.
- circumpolar constellations** Constellations so close to one of the celestial poles that (for an observer in the respective hemisphere) they never set. Which constellations are circumpolar depends on the location of the observer.

- colures** Great circles on the sphere of *fixed stars* that run through the poles. The equinoctial colure intersects the celestial equator in Aries and Libra, the solstitial colure in Cancer and Capricorn.
- decans** 10° divisions of the *zodiac*, three to each *sign*. In Manilius, each decan is governed by a *sign* of the *zodiac*.
- descendant** See cardinal points.
- dodecatemoria** ‘Twelfth parts’: 2.5° divisions of the *zodiac*, twelve to each *sign*. In Manilius, each *dodecatemorium* is governed by a *sign* of the *zodiac*. The *dodecatemoria* can be subdivided further into sections of 0.5° (misleadingly called ‘*dodecatemoria* of *dodecatemoria*’) that are governed by the *planets* (minus the *luminaries*).
- dodecatropos** ‘(System of) twelve turns’: the division of the *fixed circle of the observer* into twelve *places* (*loci*; the modern ‘houses’), each of which governs a particular aspect of life.
- ecliptic** The path of the Sun around the earth.
- ecliptic signs** *Signs* in which the Sun or Moon happens to find itself when undergoing an eclipse.
- ephemerides** Charts of planetary positions used by astrologers.
- fixed circle of the observer** An imagined circle around the observer, defined by the four *cardinal points*, through which the *zodiac* and *planets* turn; the conceptual basis for a *birth chart*.
- fixed stars** In the *two-sphere universe*, the stars on the outer sphere, whose position relative to one another is unchanging.
- genethliological astrology** See astrology.
- Great Year** The period of time it takes for all heavenly bodies to return to exactly the same positions relative to one another.
- hard astrology** See astrology.
- hexagon** See aspect.
- horoscope** See birth chart.
- horoscopus** See cardinal points.
- imum caelum** See cardinal points.
- individual astrology** See astrology.
- katarchic astrology** See astrology.
- loci** See *dodecatropos*.
- Lot of Fortune** The most significant of the *lots*.
- lots** Generally, points on the *birth chart* that carry special significance. In Manilius, the lots (*athla, sortes*) are 30° divisions of the *zodiac*, whose position on the *zodiac* changes with time according to the position of the *luminaries*.
- lower midheaven** See cardinal points.
- luminaries** The Sun and the Moon.
- medium caelum** See cardinal points.
- melothesia** The assignation of individual body parts to the governance of individual *signs* of the *zodiac*.

- midheaven** See cardinal points.
- mixtura** The combination of different astrological influences.
- mundane astrology** See astrology.
- native** The 'person being born', whose *birth chart* forms the basis, and whose fate is the concern, of *genethliological astrology*.
- nativity** See birth chart.
- occasus** See cardinal points.
- opposition** See aspect.
- paranattellonta** Constellations that rise simultaneously with particular *signs* of the *zodiac*.
- partes damnandae** Specific degrees of the *signs* of the *zodiac* that are considered harmful.
- places** See *dodecatropos*.
- planets** In the *two-sphere universe*, heavenly bodies that orbit the earth from west to east between the earth and the outer sphere, while also taking part in the outer sphere's daily east-west rotation. The seven planets are Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon.
- precession of the equinoxes** The gradual shifting of the equinoctial points along the *ecliptic* (first observed by Hipparchus), caused by the 'wobbling' of the earth's rotation.
- quadrants** Quarters of the *fixed circle of the observer*, defined by the *cardinal points*.
- quartile** See aspect.
- radio-solar theory** Theory according to which the seemingly erratic movements of the planets are caused by attraction from the Sun.
- sextile** See aspect.
- signs** 30° divisions of the *zodiac*, named for the twelve underlying constellations: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, and Pisces.
- soft astrology** See astrology.
- sortes** See lots.
- square** See aspect.
- strong astrology** See astrology.
- trigon** See aspect.
- trine** See aspect.
- tropic signs** The four *signs* in which the Sun is positioned at the equinoxes and solstices: Aries, Cancer, Libra, and Capricorn.
- two-sphere universe** The geocentric cosmic model predominant in the West from the fourth century BC to the Early Modern period. The stationary sphere of the earth is enclosed by the hollow sphere of the *fixed stars*, which rotates around it from east to west in the course of 24 hours. In between the two spheres, the seven *planets* orbit the earth from west to east.
- weak astrology** See astrology.

zodiac An imagined circular band on the sphere of *fixed stars* at a 23.5° angle to the celestial equator, which forms the backdrop of the seven *planets'* orbits around the earth.

zodiacal geography The assignation of individual countries or regions to the governance of individual *signs* of the *zodiac*.

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Passages Cited

Greek

- Achilles Tattius, *Comm.* 97.33–98.1
Maass 44 n. 72
- Isag.* 48.16–20 Maass 44 n. 72
48.18–20 Maass 56
- Ae?t. 2.11 19
2.20.1 24
2.29.6 32 n. 48
- Anaxagoras 59A42 DK 32 n. 48
59A77 DK 32 n. 48
- Anaximander 12A11 DK 24
12A21 DK 24
- Anaximenes 13A7 DK 24
- Apollonides, *Anth. Pal.* 9.287 156
9.287.3–4 156 n. 68
9.287.6 156
- Ap. Rhod. *Argon.* 1.496–511 250 n. 58
- Ath. 11.469c–470d 24 n. 23
- Arat. 1–757 54
1–558 34
10–13 60
65–6 189
66 189
19–558 188
64–6 37 n. 59
454–61 53
456–7 56
460–1 53
545 35
559–732 104
783–7 192 n. 34
- Σ Arat. 430.7–9 Maass 53
- Arist. *Cael.* 1.9.278b9–24 19 n. 13
2.14.297a8–298a20 25 n. 25
2.14.297b23–30 32
2.289a11–293a14 61 n. 7
- Mete.* 362a32 38 n. 61
- Callim. *Aet.* fr. 1.3–5 198
fr. 1.7–20 198
fr. 1.21–4 198–9
fr. 1.25–8 199
- Epigr.* 28.2 Pfeiffer 205 n. 60
- Hymn to Apollo* 106 199
108–9 200
110–12 200
- Cass. Dio 45.1.3–5 130 n. 6
49.43.5 129, 247 n. 53
55.11.1 160 n. 77
56.25.5 133, 136 n. 21
56.42.3 135
57.8.1 140 n. 32
57.15.8 247 n. 53
57.19.3–4 160 n. 77
- Choerilus of Samos *SH* 317 203
- Cleomedes 1.2.17–19 Todd 44 n. 72
1.2.78 Todd 38 n. 61
1.5.39–44 Todd 33
1.5.139–45 Todd 32 n. 46
- Corpus Hermeticum* 4.3 237
9.5 237
10.9 237
10.15 237
10.25 237
- Diod. Sic. 36.5.1 129
- Diog. Laert. 7.137 30 n. 41
8.35 32 n. 46
8.48 25 n. 25
- Geminus 2.14 63 n. 15
17.16 63 n. 15
17.33 63 n. 15
17.34 63 n. 15
- Heraclides of Pontus fr. 90–103
Wehrli 244 n. 47
- Hdt. 2.43–64 75
- Hippol. *Haer.* 1.6.3–5 24
1.7.4 24
1.7.6 24
1.8.9–10 32 n. 48
- Hom. *Il.* 18.607–8 18

- Hom. *Il.* (*cont.*)
 18.483 18
 18.484 18
 18.485 18
 18.486–9 18
 18.487 36
 18.488 21 n. 19
 18.489 36
- John the Lydian, *De mensibus*
 1.14 157 n. 70
- [Longinus], *Subl.* 13.3 202 n. 55
 13.4 202 n. 55
- Lucian, *Ver. hist.* 1.29 110 n. 115
- Mimnermus fr. 12.5–9 West 24
- Nic. *Ther.* 1–4 175
- Philo, *De specialibus legibus*
 1.13–14 110 n. 115
- Pl. *Leg.* 4.716c1–d4 242
Phdr. 274c5–d2 75
Resp. 10.613b1 242
 10.617b4–7 214
Ti. 30b8 240
 33b4–7 32 n. 46
 34b3–7 240
 34b8 240
 35b4–36b6 243 n. 42
 36b6–d7 240
 38b6–40d5 61 n. 7
 40a2–b6 240
 40c3–4 42 n. 68
 41d4–e1 240
 42b3–5 241
 47b5–c4 241
 47b5–8 241
 90a2–b1 241
 90c7–d7 241
 90d6 241
- Thet.* 176b1–3 242
 [Pl.] *Epin.* 977a2–b8 243 n. 42
- Plut. *Caes.* 59.6 131 n. 8
Comm. not. 1076f–1077a 110 n. 115
Mar. 42.4–5 132
Rom. 12 157 n. 70
 12.4 159 n. 73
Sull. 37.2 132
- Ptol. *Tetr.* 1.1 15 n. 5
 1.2.1–11 65 n. 19
- 1.2.15–16 71 n. 32
 1.4–8 65 n. 19
 2.6 103
 2.9.4 123
 3.2.1–2 149
- Pythagoras 14.21 DK 19
- Sext. Emp. *Math.* 5.4–5 63 n. 15
 5.50–85 92 n. 72
 5.95–102 97 n. 81
 5.97 97 n. 81
 5.103–5 71 n. 32
- Simpl. in Arist. *Cael.* 488.21–4
 Heiberg 50
 494.12 Heiberg 53 n. 91
- Solin. *Collectanea rerum memorabilium*
 1.18–19 157 n. 70
- Stob. 1.82.8–9 Wachsmuth 237
 1.129.2–130.13 Wachsmuth 31 n. 42
- Vett. Val. 1.23–4 149
- Latin**
- Anth. Lat.* 618.4 Riese 147
- August. *De Civ. D.* 5.2–6 91 n. 70
 5.2 229
 5.3 44 n. 72, 91 n. 71
 5.5 229
- Avienius, *Phaenomena* 202 190 n. 31
 631 190 n. 31
 1107 190 n. 31
 1138 190 n. 31
 1221 190 n. 31
- Cato, *Agr.* 1.5.4 128
- Catull. 7 109 n. 113
 51.3–4 143 n. 42
- Censorinus, *DN* 18.11 70 n. 29
- Cic. *Aratea* fr. 12 Soubiran 189, 190
 fr. 33.45 Soubiran 189
 fr. 33.373 Soubiran 189
 fr. 33.400 Soubiran 189
 fr. 33.456 Soubiran 189
 fr. 33.460 Soubiran 189
- De or.* 1.69 11, 27 n. 31, 180
Div. 1.10 229
 1.12 60 n. 6
 1.36 71
 1.127 229
 1.132 129 n. 4

- 2.41 229
 2.88 229
 2.90–1 91 n. 70
 2.92–3 92
 2.94–9 62 n. 12
 2.97 71
 2.99 132
Leg. 1.3 133 n. 14
Nat. D. 1.24 32 n. 46
 2.7–12 229
 2.15 227 n. 16
 2.19 228, 233
 2.37 230
 2.47–8 32 n. 46
 2.51–3 57 n. 93
 2.93 196 n. 41, 234
 2.94 234
 2.98 157
 2.115 234
 2.153 230
 2.155 230
 3.27 245
 3.28 228 n. 19
Q Fr. 2.10.3 179
Rep. 1.22 11, 27 n. 31
 1.25 133 n. 14
 2.17–18 133 n. 14
 6.16 244
 6.18–19 214, 245
 6.24 133 n. 14
Tim. 1 244
Tusc. 1.28 133 n. 14

 Claud. *Panegyricus dictus Manlio Theodoro consuli* 274–5 2 n. 2

 Enn. *Ann.* 2–11 Skutsch 244
Iphigenia fr. 185–7 Jocelyn 128
 fr. var. 9 Vahlen 20 n. 14

 Festus 144.18–21 Lindsay 20 n. 14
 Firm. Mat. *Mathesis* 2.30 172 n. 97
 2.30.3 172 n. 97
 2.30.4 172 n. 97
 2.30.5 172 n. 97
 3.praef. 4–1.1 235 n. 30
 5.7.4 123
 6.31.9 124
 8.6–17 171
 8.23.1–2 60 n. 4
 8.28.1 150 n. 58
 8.31.4 60 n. 4

 Gell. *NA* 14.1.18 71 n. 32
 14.1.26 91 n. 70
 German. *Arat.* 444–5 54
 467 190
 558–60 189 n. 29
 627 190
 673 190 n. 30
 fr. 2 54
 fr. 3 54
 fr. 4 54
 fr. 6 52 n. 88

 [Hermes], *Asclepius* 7 237
 9 237
 22 237

 Hor. *Carm.* 1.11.2–3 128
 1.12.46–8 141 n. 35
 2.17.17–30 128
 2.17.19–20 151 n. 59
Sat. 1.6.113–14 129 n. 4

 Jer. *Ab Abr.* 1972 247 n. 53
 Juv. 6.562 137
 6.582–91 129 n. 4
 6.588 129 n. 4
 Justinian, *Dig.* 43.12–13 202 n. 54

 Livy 39.16.8 129 n. 4
 Σ Luc. 1.639 91 n. 71
 Lucr. 1.73 193, 194
 1.74–7 193
 1.74 193
 1.80–2 171 n. 96
 1.136–9 163
 1.136 163
 1.196–8 195
 1.823–7 195
 1.832 162
 1.907–14 195
 1.926–30 193
 1.926–7 200
 1.927 193, 200
 1.928 193
 1.948–50 262 n. 2
 1.1065–7 33 n. 50
 1.1115–17 262 n. 2
 2.688–99 195
 2.1013–22 195
 3.14–30 262 n. 2
 3.29–30 262 n. 2
 4.1–5 193

- Lucr. (*cont.*)
 6.1138–1286 192
- Manilius 1.1–24 246
 1.1–15 120 n. 137
 1.1–6 185, 249
 1.1–4 14, 265
 1.1–3 186, 249
 1.1–2 14, 61, 185
 1.1 172, 177, 211
 1.2 14, 65, 112 n. 120
 1.4–6 249
 1.4–5 187, 200, 249
 1.4 200
 1.6 162, 187, 200 + n. 50, 211,
 246 n. 51
 1.7–10 139, 146, 166
 1.7 140
 1.8 140, 169
 1.9 169
 1.11–12 207, 208 n. 61
 1.11 222
 1.13–19 192
 1.13–15 15–16, 212
 1.13 146, 193, 212, 245
 1.16–19 16
 1.16–17 17
 1.16 16, 193
 1.17 63, 193, 194, 212, 245
 1.18 16, 62 n. 9
 1.19 245 n. 50
 1.20–3 211
 1.20–2 188, 211, 214, 235 n. 29
 1.21–2 195
 1.21 211
 1.22–3 214, 219 n. 6, 244
 1.22 214, 245
 1.23 187, 211 + n. 66
 1.25–65 68, 222
 1.25–39 17
 1.25–37 68, 71
 1.25–30 255
 1.26–8 256
 1.26 68, 211, 222, 255, 256
 1.28 256
 1.29 256
 1.30–7 68
 1.30 68, 235, 256
 1.35–6 17
 1.40–5 68, 71, 235
 1.42 69 n. 25
 1.43–5 235
 1.43 69
- 1.44 69 + n. 26
 1.45 69
 1.46–65 70, 71
 1.46–50 235
 1.46–8 70
 1.46 70
 1.48–50 70
 1.48–9 71, 258
 1.48 70, 257
 1.50 223
 1.51 70
 1.52 117 n. 131
 1.58–60 17 n. 9
 1.58–9 70
 1.61–5 71
 1.63 61, 219 n. 6, 257
 1.64 219
 1.66–112 72, 246
 1.85–90 247
 1.86–9 248 n. 54
 1.91–4 246, 249
 1.91–2 248 n. 55
 1.91 248 n. 55
 1.92 248 n. 55
 1.93 248 n. 55
 1.95 247
 1.96–112 72, 247
 1.96–8 262 n. 2
 1.97 257
 1.104 257
 1.113–14 200 + n. 50
 1.117–21 17
 1.117–18 17
 1.120 17
 1.121 17
 1.221–35 11
 1.122–46 9 n. 13, 29
 1.145–6 29
 1.147–8 29, 34, 214 n. 71
 1.147 17 n. 10
 1.148 29, 30
 1.149–66 30, 31 n. 44
 1.149 30 n. 41
 1.150 30
 1.168–203 31
 1.168–70 31
 1.170 31
 1.173–93 31
 1.173 31
 1.180 31
 1.185 17 n. 10
 1.195 31
 1.201 31

- 1.202-3 31
 1.204-46 31
 1.204-5 32
 1.206-10 32
 1.206 17 n. 10
 1.211-13 32
 1.215-20 32
 1.221-35 11, 32
 1.222-9 32
 1.230-5 33
 1.236-46 33
 1.242-5 263
 1.247-54 218, 220
 1.247-51 34
 1.247 34
 1.248 34
 1.250 34, 218
 1.251 34, 218, 219
 1.252 220
 1.254 220
 1.255-808 188
 1.255 34
 1.256-74 35
 1.261 35
 1.263-4 35
 1.274 49 n. 84
 1.275-93 35
 1.275-8 35
 1.294-372 35
 1.294-307 35
 1.298-302 36
 1.308-72 37
 1.315 37 n. 59, 190
 1.319-23 39
 1.320-2 39
 1.320 39
 1.324-30 39, 250 n. 59
 1.329-30 250 n. 59
 1.366-70 39
 1.373-455 37
 1.377-86 37
 1.378 37
 1.382-3 37, 140
 1.384-6 140, 146
 1.385 37, 140 n. 34, 141 n. 36, 169
 1.386 141 + nn. 34 and 36, 169
 1.412 39
 1.443-4 38
 1.451-3 38
 1.453-5 39
 1.456-73 40 n. 65, 115 n. 126
 1.456-68 40
 1.461 115 n. 126
 1.469-73 40
 1.471 115 n. 126
 1.474-538 40
 1.474-531 217, 233
 1.474-82 194
 1.475-9 56
 1.479 115 n. 126
 1.483-94 22
 1.483-93 194
 1.483-5 217
 1.483 233-4
 1.484 218
 1.485 218
 1.486 194
 1.492-3 195, 234
 1.493 220
 1.495-500 21
 1.497 21
 1.501-5 21
 1.506-7 21
 1.508-12 22, 163
 1.508-10 165
 1.511-12 165
 1.513-23 22
 1.518 165, 263
 1.521 263
 1.523 22
 1.524-30 22
 1.531 22, 217, 218
 1.532-8 49
 1.538 48
 1.539-60 40
 1.541-3 257 n. 74
 1.558 123 n. 141
 1.566-602 41
 1.603-30 42
 1.631-3 42
 1.633-47 42
 1.648-65 42
 1.667-71 42
 1.670 45
 1.672-5 43
 1.679-80 20 n. 17
 1.681-2 44
 1.684-804 45
 1.684-700 45
 1.701-16 45
 1.717-57 45
 1.718-61 9 n. 13
 1.735-49 263
 1.758-804 45, 133, 241, 244, 245
 1.774 242 n. 41
 1.777 173

Manilius (*cont.*)

- 1.794-5 233
 1.794 233
 1.798-804 141, 146
 1.798-801 144
 1.798-9 141
 1.799-804 46
 1.799-801 142
 1.799 142, 143
 1.800 142 + n. 39, 143, 169
 1.801 142, 144 n. 43
 1.802-3 168 n. 90
 1.802 142
 1.803-4 142
 1.803 142
 1.804 48
 1.805-8 46 n. 75, 48
 1.807-8 48 n. 83
 1.808 34
 1.809-926 46
 1.809-12 48
 1.811 17 n. 10, 48
 1.813 48
 1.817-76 9 n. 13
 1.817-66 46
 1.867-73 46, 52 n. 89
 1.874-926 46
 1.874-921 134 n. 16, 144
 1.875 46
 1.877-9 47
 1.880-95 47
 1.884-91 47, 144, 192
 1.896-904 47
 1.896-903 3, 163
 1.898-903 144
 1.899-903 138
 1.905-26 47
 1.905-21 163, 166
 1.905 46 n. 78
 1.907-21 144
 1.916 169
 1.922 145
 1.923-4 145
 1.924 47 n. 81
 1.925-6 48, 145
 1.926 169
 2.1-149 201
 2.1-48 183 n. 17, 201, 205
 2.1-11 201
 2.8-11 201
 2.8-9 204
 2.10 187 n. 26, 202
 2.11-24 202
 2.11 202
 2.25-38 40, 202
 2.25-7 111, 191
 2.25 191
 2.27 112
 2.28-36 112, 191
 2.32 96
 2.35 112 n. 120
 2.37-8 112, 169, 191
 2.37 40
 2.38 112, 265
 2.39-42 202
 2.40 202
 2.43 202
 2.44-5 202
 2.46-8 202
 2.49-52 203
 2.50 203
 2.51-2 203
 2.52 203
 2.53-6 204
 2.53 204
 2.57-9 204
 2.58-9 205, 208, 212
 2.58 202 n. 55, 205
 2.59 205
 2.60-6 63, 206
 2.60-2 218
 2.60 205, 219 n. 6
 2.62 220
 2.63 220, 228
 2.64-6 219, 220
 2.64 219
 2.67-81 206, 233
 2.67-8 220
 2.67 63, 220
 2.68 63 n. 14
 2.82-6 62, 206
 2.82-3 221
 2.82 63, 206, 219
 2.84 62
 2.87-108 61
 2.87-104 206
 2.93-7 192 n. 34
 2.105-28 65
 2.105-25 212
 2.105-8 206
 2.105-7 222
 2.107-8 222
 2.108 223
 2.115-25 206, 222-3
 2.115-16 222 n. 11
 2.115 223

- 2.116 223
 2.122 223
 2.123-5 211
 2.123 220, 221 n. 10, 223
 2.124-5 212
 2.124 207, 223
 2.125 223, 249
 2.127-8 256 n. 72, 257
 2.128 187 n. 26
 2.129-35 66
 2.136-49 178 n. 11
 2.136-7 207
 2.137-40 205
 2.137 213
 2.138-40 208, 212, 213
 2.138 241 n. 37
 2.141-2 207, 212, 213, 265
 2.142 207
 2.143-9 237
 2.143-8 254 n. 67
 2.143-4 213
 2.143 213, 241 n. 37
 2.145-8 213
 2.148 213
 2.149 254
 2.150-749 82
 2.150-269 82
 2.150-1 82
 2.270-692 82
 2.270-432 64
 2.352-7 64-5
 2.375-8 64 n. 17
 2.385-6 64 n. 17
 2.432 87
 2.433-65 87
 2.433-52 79 n. 54, 87, 121
 2.439 124 n. 143
 2.453-65 87, 102
 2.448-52 261
 2.449 117 n. 131
 2.466-519 64
 2.466-82 113
 2.466 87
 2.483 113
 2.484 113
 2.507-9 146
 2.579-607 86, 163
 2.595-602 166
 2.595 86 n. 62
 2.603-7 87, 113 n. 123
 2.644 117 n. 131
 2.688 123 n. 141
 2.693-749 87
 2.693-737 121
 2.693-5 162
 2.701 88
 2.705 123 n. 141
 2.707-8 88
 2.710 123 n. 141
 2.726-37 117 n. 131
 2.738-49 122
 2.740-1 122
 3.742-8 117 n. 131
 2.745-8 122
 2.749-54 122
 2.749 122
 2.750-87 178, 260
 2.750 88, 117 n. 133, 119
 2.751-87 88
 2.752-3 220
 2.755-87 195
 2.755-71 195, 234
 2.755-64 123
 2.772-87 234
 2.772-83 123
 2.785-6 123-4
 2.788-840 88
 2.807 220
 2.829 162 n. 82
 2.841-55 88
 2.856-958 88
 2.886-9 162
 2.888-9 163
 2.897-8 162 n. 82
 2.909-10 162
 2.912-18 192 n. 34
 2.916-17 162
 2.937-8 162 n. 82
 2.958-64 88-9
 2.959-65 119
 2.959-64 117
 2.965-7 89
 2.965 117
 3.1-42 89
 3.1 208
 3.2 208
 3.3 208
 3.5-26 208
 3.23 208
 3.24-5 208 n. 63
 3.26-30 208-9
 3.29 209
 3.30 209
 3.31 210
 3.31-9 209
 3.31-4 209

- Manilius (*cont.*)
- 3.34–5 209
 3.34 210
 3.36–7 178 n. 11, 213 n. 69
 3.38 209, 210
 3.39 209
 3.41 211 + n. 66
 3.43–159 121
 3.43–95 89
 3.47–57 89
 3.50–1 220
 3.54 220
 3.55 220
 3.58–70 89
 3.58 62 n. 9, 221
 3.61 16 n. 8, 63
 3.70–82 89
 3.89 117
 3.96–159 89
 3.128 117
 3.155–8 117
 3.156–9 117 n. 133
 3.156–8 119
 3.160–202 90
 3.162 162 n. 82
 3.203–17 92
 3.203–5 90
 3.207 90
 3.215 92
 3.218–46 92
 3.218 92
 3.247–482 92
 3.385–442 92
 3.393–4 261
 3.443–82 92
 3.483–509 93
 3.510–59 93, 121
 3.560–617 94
 3.581–5 117 n. 131
 3.587–9 117 n. 133
 3.587 123
 3.618–82 94, 152
 3.676–82 152 n. 65
 3.676–9 94
 3.680–2 94 n. 76
 4.1–118 62, 220
 4.14–16 62, 220
 4.14 252
 4.16 1 n. 1, 62 n. 10, 229
 4.22 253 n. 66
 4.23–42 163
 4.23 165
 4.24–30 165
- 4.30–42 165
 4.43–62 163, 166
 4.43–9 165
 4.49 166
 4.50–6 165
 4.57–62 165
 4.57 143
 4.64–5 166
 4.64 166
 4.65–6 166
 4.97 252 n. 63
 4.98–9 252 n. 63
 4.105 252
 4.108–18 252
 4.115 252
 4.118 253 n. 64, 254 n. 67
 4.119–21 212
 4.121 211 n. 66
 4.122–293 95, 102 n. 93, 149
 4.122–3 95
 4.124–291 98
 4.144–6 99
 4.148–9 163
 4.152–61 108 n. 109, 208 n. 61
 4.162–3 99 n. 85
 4.176–88 96
 4.176 97
 4.178–9 96
 4.178 97
 4.180–2 97
 4.180 97
 4.183–6 97
 4.187–8 97
 4.203–4 99 n. 85
 4.213–14 163
 4.217–19 99 n. 85
 4.218 99 n. 85
 4.219 99 n. 85
 4.254–5 99 n. 85
 4.294–386 99, 121
 4.298–302 162 n. 82
 4.319 123 n. 141
 4.380–6 100
 4.386 123 n. 141
 4.387–407 100, 211
 4.387–9 177 n. 7, 178
 4.390–407 178, 212, 221, 224
 4.390–2 212–13, 225
 4.390 257
 4.392 257
 4.406–7 213, 225
 4.407 238
 4.411–14 65 n. 19

- 4.411 100
 4.413 101
 4.416–29 104 n. 95, 113
 4.416–24 101
 4.416 104 n. 95
 4.425 114
 4.426–9 101
 4.431–43 101
 4.431–5 210
 4.434 101, 210
 4.436–8 210
 4.436 210
 4.437 210
 4.441 101
 4.442 101 n. 90
 4.443 101
 4.444–97 101
 4.469–72 101
 4.481–2 101 n. 90
 4.498–502 65 n. 19
 4.500–1 117 n. 131
 4.502–84 98 n. 84, 102
 4.502–4 102 n. 93
 4.505–17 102
 4.547–52 153, 158, 170 n. 93
 4.547 153
 4.549–52 169
 4.552 169
 4.566–7 164
 4.571–2 101 n. 90
 4.585–817 66, 102
 4.585–6 102
 4.595–695 102
 4.694 163
 4.696–743 102
 4.701–10 87 n. 64, 102
 4.742–3 65
 4.744–806 103
 4.763–6 154
 4.764 154, 156
 4.765–6 156 n. 68
 4.766 154, 155, 158, 160
 4.773–7 67, 99, 157
 4.773–5 108 n. 109
 4.773 158
 4.774 163
 4.776–7 169
 4.776 157 n. 69, 158
 4.807–17 103, 113 n. 123
 4.818–65 103
 4.818–20 162 n. 82
 4.821–40 113
 4.821–39 103
 4.821 104 n. 95
 4.834–7 263
 4.839–40 114
 4.866–935 65
 4.869–72 177 n. 7, 178, 223
 4.873–935 178, 212, 221
 4.876 222
 4.879 221 n. 10
 4.883–5 262
 4.883 224
 4.884–5 221, 258
 4.884 257
 4.885 241
 4.886–7 241
 4.887 221 n. 10, 224 n. 12
 4.888–93 221
 4.888–90 220
 4.893–5 222
 4.896–7 221 n. 10, 224, 241
 4.897–910 224
 4.903–8 258
 4.905–6 241
 4.906–7 224, 241
 4.910 220, 221 n. 10, 224
 4.915–19 224
 4.920–1 224
 4.922 256 n. 72
 4.923–32 224
 4.927 224
 4.932 224
 4.933–5 159
 4.934–5 170 n. 93
 4.934 159, 169–70
 4.935 159, 169
 5.1–11 118
 5.1–7 104, 210 n. 64
 5.1 104
 5.4–7 119
 5.5–7 120 n. 137
 5.8–26 104
 5.8–11 119, 212
 5.8–9 210 n. 64
 5.8 104
 5.10 210–11 n. 64
 5.27–8 104
 5.28 117
 5.29 104
 5.32–709 95, 107
 5.32–56 107
 5.53 169
 5.67–101 107
 5.102–17 106
 5.105–7 164

- Manilius (*cont.*)
 5.119–23 164
 5.197–205 107
 5.209–12 263 n. 3
 5.311–13 105, 106
 5.311 106–7 + n. 105
 5.324–38 106 n. 104
 5.324–8 250 n. 59
 5.339–47 107
 5.389–93 107
 5.409–15 106 n. 104
 5.423–30 108
 5.449–85 108
 5.454 164
 5.474–6 108
 5.510 160 n. 76
 5.513 160 n. 76
 5.515 160 n. 76
 5.645–6 162 n. 82
 5.645 190
 5.646 37 n. 59, 190
 5.667–81 108
 5.709 5, 109
 5.710–45 119
 5.710–15 109
 5.710 5
 5.716–17 109
 5.718–25 109
 5.726–33 109
 5.721–33 40 n. 66
 5.734–45 109–10, 119 n. 135
 5.734 114
 5.738–9 114
 5.738 110, 114 + n. 24
 5.739 110, 114 n. 24
 5.740 114
 5.743 110, 115
 5.744–5 110
- Ov. *Am.* 1.15.9–42 204 n. 57
 3.9.25–6 202 n. 54
Ars am. 1.2 180 n. 13
Fast. 1.310 171 n. 95
Met. 1.3–4 186 n. 25
 1.21–88 18 n. 12
 1.22–31 31 n. 43
 8.182 190 n. 30
 15.60–481 244
 15.144 245 n. 50
 15.146–9 245
 15.146 246 n. 51
 15.147–9 193 n. 37
- Phaenomena* fr. 1 189 n. 29
 fr. 2 189 n. 29
- Petron. *Sat.* 35 98 n. 82
 39 98 n. 82
- Plaut. *Rud.* 1–29 128
- Pliny *HN* 2.1.8 20
 2.59–78 51, 55
 2.94 150 n. 56
 2.180 33
 18.211 27 n. 28
 35.199 4
- Prop. 2.34.85–94 204 n. 57
 4.1 128
 4.1.64 200
 4.1.86 151 n. 59
- Quint. *Inst.* 10.1.55 39 n. 62, 53
- Sen. *Ep.* 86.15 175
 107.11 253
 122.1–3 33 n. 50
- Serv. *ad Verg. Aen.* 4.519 186 +
 n. 23
ad Verg. G. Prooem. 129.9–12
 Thilo 176–7
ad Verg. G. 1.33 148 n. 49.
- Suet. *Aug.* 5 147
 31.1 129 n. 3
 94.5 130 n. 6, 133 n. 11
 94.12 132, 136 n. 22, 149 n. 54
- Tib.* 14.2 161 n. 78
 14.4 155
 26.2 140 n. 32
 67.2 140 n. 32
 69.1 136
- Tac. *Ann.* 1.72 140 n. 32
 2.32 247 n. 53
 2.87 140 n. 32
 6.20 160 n. 77
 6.22 137
- Tib.* 1.3.18 128
- Ulpian. *Leg. Mos. et Rom. collatio*
 15.2.2 172 n. 98
- Val. Max. *Praef.* 1 140 n. 33
 1.3.3 129
- Varro, *Sat. Men.* 420 20 n. 16

- Verg. *Aen.* 1.294–6 47
 4.519–20 14 n. 1, 185, 186
 4.653 186 n. 22
 4.696 186 n. 22
 6.119–20 249 n. 57
 7.312 248 n. 55
 10.176–7 248 n. 55
Ecl. 3.46 249 n. 57
 4.55–7 249 n. 57
 6.3–5 199
 6.5 187
 6.30 249 n. 57
 6.70–1 249
 6.71 187
 8.55–6 249 n. 57
 8.69 187, 249
 8.71 248 n. 55, 249
G. 1.24–39 135
 1.32–5 148
 1.32 135
 1.249–51 33 n. 50
 1.488 47
 1.500–4 47
 1.500 145
 1.501 145
 1.503–4 145 n. 45
 1.512–14 47
 1.512 47 n. 81
 2.176 183, 200
 2.475–82 187
 2.476 187
 2.477 188
 2.484–6 188
 2.490–2 188
 2.490 197
 2.493 197
 3.3–8 203 n. 56
 3.4 203, 209, 248 n. 55
 3.10–11 187 n. 26
 3.291–3 193 n. 37
 [Verg.] *Aetna* 254 197
 255 197
 260–9 197
Vitr. 9.1.6–14 51
 9.1.15 44–5

Index

- Aemilii 166
aemulatio see intertextuality
aether 30
Agrippa 129, 132, 247 n. 53
Anaxagoras 32 n. 48
Anaximander 24, 25 n. 25
Anaximenes 24, 25 n. 25
antipodes 33, 37, 47, 140–1, 263
Antony 97 n. 80, 133 n. 12, 151 n. 59, 152
Anubio 201 n. 50
Apollonides 155–6
Apollonius of Perga 51
Aratus/*Aratea* 8, 11, 27–8, 34–40, 49, 53–4, 56–7, 104, 112, 175, 179, 180, 184, 188–92, 200 n. 50, 201 n. 52, 259, 260
(see also *Aratus Latinus*; Avienius; catasterism; Cicero; Eratosthenes; Germanicus; Ovid; Varro of Atax; Vergil)
Aratus Latinus 28
Archytas 243
argument from design 217, 227, 233, 234, 236, 263 n. 4
Aristarchus of Samos 25 n. 26
Aristotle 10, 25, 28, 30, 32, 60–1, 65
ascendant see *horoscopus*
aspect 63–5, 83–6, 271, and *passim*
astral immortality 133–5, 241, 244, 245 n. 48
(see also catasterism; Julius Caesar; Milky Way)
astrology 271 and *passim*
criticism 62 n. 12, 71 n. 32, 91–2, 97 n. 81 (see also Carneades; Sextus Empiricus)
different types 66–7
Egyptian 69, 74–5, 100
genethliological 67 and *passim*
'hard' v. 'soft' 60 and *passim*
history 67–76
horoscopic 67
in Rome 127–37
individual 66
katarchic 67, 132, 149–50 n. 56
legislation 76, 128–9, 131, 136–7, 170–2, 181 n. 15, 247 n. 53
Mesopotamian 60 n. 5, 69, 70, 73–4, 77 n. 51
mundane 66
pseudepigraphical writings 72
relation to astronomy 14–15
'strong' v. 'weak' 59 and *passim*
term *astrologia* 15
(see also aspect; astronomy; cardinal points; Chaldaeans; chronocrators; decans; *dodecatemoria*; *dodecatropos*; ecliptic signs; fixed circle; *horoscopus*; houses; *imum caelum*; lots; *medium caelum*; *melothesia*; *mixtura*; *occasus*; paranatellonta; *partes damnandae*; places; planets; stars; tropic signs; universe)
Astronomica
Andromeda episode 184 n. 19
archetype 109 n. 111
date 3–4, 137–61, 260
didactic digression 121–6, 178, 195–6, 260
didactic poetry 174–82, 260
final simile 109–10, 114–15, 167–8, 264
history of civilization 72, 246–9
incompleteness (?) 5, 117–20, 170–2
intertextuality with Aratus/*Aratea* 8, 34–40, 184, 188–92, 259, 260
intertextuality with Catullus 184 n. 19
intertextuality with Cicero 188–90, 232–4, 242 n. 40, 244, 251
intertextuality with Horace 184 n. 19
intertextuality with Lucretius 8, 47, 120 n. 138, 144, 162–3, 184, 192–6, 217, 260
intertextuality with Ovid 9, 184 n. 19, 245–6, 250
intertextuality with Vergil 8, 47–8, 144–5, 167, 184, 185–8, 248–9, 260
lacuna in Book 55, 52, 109, 119
magic 246–50, 255, 265

- poetics 197–215 (*see also*
 Callimachus; immanent literary
 history; *omnia iam uulgata* motif;
primus motif; *recusatio*; travel
 metaphor; universe as text; *uates*
mundi; water metaphor)
 reception 1–3, 62 n. 10 (*see also*
 Firmicus Maternus)
 self-contradictions 12–13, 33, 47,
 111–15, 169–70, 251–8, 263–5
 text 13 n. 15
 (*see also* Manilius)
- astronomy
 history 23–8
 Mesopotamian 25, 26 n. 27
 term *astronomia* 15
 (*see also* astrology; cosmology; planets;
 stars; universe)
- Athenio 129, 131
athla *see* lots
- Augustus 4, 8, 37, 45–6, 47, 127–73
passim, 189 n. 29, 260, 264
 birthday 147 + n. 47
 Capricorn 132–3, 135, 146–53, 161,
 260
 horoscope 108 n. 109, 132–3, 135,
 136 + n. 22, 146–53, 153–4,
 156–9, 161
 Libra 146–53, 153–4, 156–9, 160
 sundial 152–3
- Avienius 28, 190 n. 31
- Barbaro, Francesco 2 n. 3
 Bentley, Richard 3, 138, and *passim*
 Berossus 74
 Boethius 2, 3 n. 7, 120 n. 138
 Boll, Franz 105
 Bracciolini, Poggio 2, 3 n. 7
 Brahe, Tycho 15
- Caesar *see* Augustus; Julius Caesar;
 Tiberius
- Callimachus/Callimacheanism 176,
 197–215 *passim*, 260
- Calpurnius Siculus 1 n. 1
 Capricorn *see* Augustus
 cardinal points 78–9, 271, and *passim*
cardines *see* cardinal points
 Carneades 130 + n. 5
 catasterism 27–8, 39–40, 96, 112–13, 133,
 134, 135, 141, 151 n. 59, 168, 189,
 190 n. 31, 191, 250 n. 59, 264, 271
 (*see also* Aratus; Eratosthenes)
- Cato the Elder 128, 164
 Cato the Younger 166, 227
 Catullus 109 n. 113, 143 n. 42, 184 n. 9
 centres *see* cardinal points
 Chaldaeans 15, 69 n. 27, 128
 Choerilus of Samos 203
 chronocrators 93, 121, 128, 271
 Chrysippus 228, 251
- Cicero 11, 59, 60, 62 n. 12, 71, 76, 130,
 131 n. 8, 132, 157, 159 n. 73, 179,
 180, 226–7, 228, 229, 230, 231,
 232–4, 242 n. 40, 244, 251
Somnium Scipionis 45, 133, 233, 244,
 245
 translation of Aratus 28, 34, 188–90
- Civils Wars 47, 48 n. 82, 86, 115, 131,
 135, 144–5, 151, 163, 166–7, 172,
 186 n. 24
- Cleantes 227 n. 16
 coffee-table books *see* didactic poetry
 comets 46–7, 48, 49, 52 n. 89, 144, 163
 (*see also* Julius Caesar)
- Container Corporation of
 America 257 n. 74
- contemplation of the heavens 225, 226,
 230, 236, 238, 241, 252, 262
- Copernicus 25, 50, 77 n. 51
- Cornelius Hispalus 128–9
- cosmic religion 251, 260
- cosmology
 anthropocentrism/
 anthropomorphism 111, 113,
 265 n. 6
 constructionism 111, 265
 narcissism 265
 (*see also* astrology; astronomy;
 contemplation; cosmic religion;
 Homer; universe)
- creation *see* universe
- decans 75, 99–100, 272, and *passim*
 Democritus 194
 descendant *see* *occasus*
 didactic poetry 174–82, 196–7, 260
 coffee-table books theory 181–2, 262
dodecaoros 106
dodecatemoria 87–8, 272, and *passim*
dodecatropos 80, 88–9, 272, and *passim*
 Dorotheus of Sidon 201 n. 50
- ecliptic signs 103–4, 113–14, 272, and
passim
ekpyrosis 263

- elements 29, 30–1, 33–4, 65
 Empedocles 30, 175
 Empedotimus 244
 Engonasin 37, 189–90
 Ennius 76, 120 n. 137, 128, 171–2,
 196 n. 41, 198, 208 n. 63, 234,
 243–4
Enūma Anu Enlil 73
 Epicurus/Epicureanism 25 n. 26, 172,
 179, 192–6, 217, 226, 233–4,
 250 n. 60, 263 n. 4
 (see also Lucretius)
 Eratosthenes 26
Catasterisms of (pseudo-)Eratosthenes
 28 n. 33, 34, 191
 Eudoxus 27, 42, 51, 52, 53 n. 91
 Firmicus Maternus 1, 106, 118,
 119–20 n. 136, 123, 124, 125,
 164 n. 84, 172 n. 97
 fixed circle of the observer 78–80, 272,
 and *passim*
 Galilei, Galileo 50
 Gemini see Manilius
 Gemma Augustea 133, 134, 157 n. 71
 Gerbert d'Aurillac 1–2, 120 n. 138
 Germanicus 1 n. 1, 28, 34, 39, 52, 54,
 108 n. 109, 112, 189+n. 29, 190,
 193 n. 38
 Gevartius 2 n. 2
 gigantomachy 257, 258
 Giraldi, Lilio Gregorio 125
 Goethe, Johann Wolfgang von 222 n. 11
 Gratius 175
 Great Year 53, 70, 71, 126, 272
 Haedus 105–7
 have-one's-cake-and-eat-it-too
 principle 13, 170, 258, 263
 (see also *Astronomica*, self-contradictions)
 Heraclides of Pontus 25 n. 26, 244
 Hermes Trismegistos 68, 69, 72, 75,
 234–9, 250, 251, 255–7, 258
 (see also Hermetism; Mercury; Thoth)
 Hermetism 8, 38 n. 61, 47 n. 79, 68,
 216 n. 1, 234–9, 242, 247, 254 n.
 68, 261
 Herodotus 75
 Hesiod 175, 176, 177, 178, 180, 182,
 183, 187, 191, 200, 201 nn. 50 +
 52, 202, 249
 hexagon see aspect
 Hipparchus 22 n. 20, 26, 28, 51, 71 n.
 30, 109
 Homer 182, 183, 191, 201–2, 203, 204,
 205
 cosmology 18–19, 23–4, 25 n. 25
 shield description 18–19, 21 n. 19,
 23, 36
 Horace 128, 168, 184 n. 19
 horoscope 67+n. 23 and *passim*
horoscopus 67 n. 23, 78, 90–3, and *passim*
 houses
 mundane 79 n. 54 (see also places)
 planetary 79 n. 54, 87 n. 63, 121,
 124 n. 143
 Housman, A. E. 2–3, 93, 99, 232, and
passim
 Hyginus 5, 28 n. 33
imitatio see intertextuality
 immanent literary history 196–7
imum caelum 79 and *passim*
 'influence' see stars
 intertextuality 8–10, 182–97, 260–1
 (see also *Astronomica*)
 Islam 151 n. 61
 Jackson, Moses J. 3
 Jesus 151
 Julius Caesar 47, 86 n. 62, 131, 132,
 133–4, 140, 142, 143, 144, 145,
 151 n. 59, 159, 163, 165, 166, 168,
 169, 170 n. 93
 calendar reform 27 n. 28, 131, 147 n.
 47, 148
 comet 133–4, 135, 149–50, 168
 Juvenal 1
 Kepler, Johannes 15, 50
kosmopolis 110 n. 115
kosmos see universe
 Kuhn, Thomas S. 25 n. 24
 Lachmann, Karl 138
Laienastrologie 97–8+n. 82, 116
 Leo 60 n. 4, 96–7, 111, 191
Liber Hermetis 235–6
 Libo Drusus 137, 170
 Libra see Augustus
loci see places
 'Longinus' 202 n. 55
 lots 81, 89–90, 272, and *passim*
 Lot of Fortune 81, 90, 149–50, 272,
 and *passim*

- lower midheaven see *imum caelum*
- Lucan 1, 115
- Lucretius 8, 9, 47, 120 n. 138, 144, 162–3, 171–2, 175, 176, 177, 178, 179, 182, 184, 188, 192–6, 197, 200, 217, 260
(see also Epicureanism)
- macrocosm and microcosm 14, 65, 102, 111, 178, 206, 212–13, 214, 215, 221–2, 223, 229–30, 233
- magic see *Astronomica*
- magnitude see stars
- 'Manetho' 201 n. 50
- Manilius
Gemini his sign (?) 108 n. 109, 208 n. 61
name 3 n. 7
non-Roman origin (?) 4–5, 162–3
(see also *Astronomica*)
- Manilius Antiochus 4–5, 162 n. 80
- Manlius Theodorus 2 n. 2
- Maximus 201 n. 50
- medium caelum* 78–9 and *passim*
- melothesia* 87, 102, 111, 272
- Mercury (god) 17, 68, 97, 234–9, 255–7
(see also Hermes Trismegistos; Hermetism; Thoth)
- Menander 108–9
- microcosm see macrocosm
- midheaven see *medium caelum*
- Milky Way as dwelling place of the dead 45–6, 133, 141–4, 163, 233, 241, 242 n. 41, 244–5, 246
(see also astral immortality; Cicero; Pythagoras)
- mixtura* 122–6, 150, 195, 260, 273
- mundus* 19–20
- music of the spheres 214–15, 219 n. 6, 244, 245, 246, 250
(see also Pythagoras)
- Navigius Fronto 3 n. 7
- Nechepso and Petosiris 69, 70, 72, 75, 201 n. 50, 235
- Nicander 11, 175, 180
- Nigidius Figulus 91 n. 71, 105 n. 99, 130, 132, 133 n. 11, 151 n. 59, 244, 247 n. 53
- occasus* 79 and *passim*
- Octavius 132
- Okeanos 18, 23, 36
- omnia iam uulgata* motif 203–4, 208
- opposition see aspect
- Orpheus 187, 249–50
- Ovid 39, 112, 120 n. 137, 162 n. 81, 171 n. 95, 175, 176, 180 n. 13, 184 n. 19, 186 n. 25, 191, 202 n. 54, 204 n. 57, 244, 245–6, 250
translation of Aratus 9, 28, 34, 188, 189 n. 29, 190
- Panaetius 130, 229
- paranattellonta 104–9, 273, and *passim*
- Parmenides 25 n. 25
- partes damnandae* 100–1, 113–14, 210, 273, and *passim*
- pater patriae* 140, 145, 146, 168
- Petosiris see Nechepso
- Petronius 1, 97–8 n. 82
- Philolaus 243
- places 79–80 and *passim*
- planets 16 n. 7, 43–5, 48–57, 116–26, 259–60, 262 n. 1, 273, and *passim*
(see also radio-solar theory)
- Plato/Platonism 8, 15, 18, 25, 30, 32, 50, 52, 60–1, 75, 231 n. 23, 238, 239–42, 242–3, 244, 251 n. 61, 261
- Plautus 76, 128
- Pliny the Elder 51, 54–5
- poetics see *Astronomica*
- Poggio see Bracciolini
- Polemio 239 n. 34
- Pompey 132, 165, 166, 167 n. 87
Theatre of 160 n. 76
- Posidonius 10, 41 n. 67, 130, 229, 231–2, 234, 250
- potter's wheel as an illustration of celestial rotation 44–5, 91 n. 71
- precession of the equinoxes 22 n. 20, 26, 37 n. 58, 43 n. 70, 77 n. 52, 94 n. 76, 273
- Presocratics 24, 29
- primus* motif 200, 205, 208
- Prometheus 256 + n. 71
- Propertius 128, 204, 204 n. 57
- Ptolemy 15, 27, 49 n. 85, 50–1, 65, 70–1 n. 30, 72, 123
- Publilius Syrus 4–5
- Pythagoras/Pythagoreanism 8, 19, 25 n. 25, 32, 45, 49 n. 85, 133, 214–15, 242–6, 247, 250, 261
(see also Milky Way; music of the spheres)
- Pythodorus Philometor 157 n. 71

- quadrants *see* fixed circle of the observer
Quellenforschung 8–10, 216
 Quirinus 142–4
- radio-solar theory 51–2, 54–5, 273
recusatio 198, 199, 203, 208
 Regiomontanus 2
 Regulus 60, 97 n. 80
 (*see also* Leo)
 Rhodes *see* Tiberius
 Rome, horoscope of 99, 108 n. 109, 131,
 157–9, 163
 Romulus 133, 138, 159, 165
 horoscope 131, 151
- ‘saving the phenomena’ 50, 52
 Scaliger, Joseph 3, 122, 125, 148–9, and
passim
 Seneca 115, 251
 sextile *see* aspect
 Sextus Empiricus 71 n. 32, 92 n. 72,
 97 n. 81, 122–3 n. 140
 Sextus Pompeius 47, 144, 163
 Scribonius 161 n. 78
 Servius 176–7
sidus Iulium see Julius Caesar
 Sosigenes 27 n. 28
sortes see lots
sphaera barbarica 105
 sphere as the perfect body 32
 square *see* aspect
 Staberius Eros 4
 stars
 dance 42 n. 68
 ‘influence’ 63–5
 magnitude 109–10
 sound *see* music of the spheres
 ‘vision’ 63–5
 (*see also* astral immortality; astronomy;
 astrology; catasterism)
 Stoicism 8, 30–1, 32 n. 46, 57 n. 93,
 61, 110 n. 115, 115, 190, 216 n. 1,
 226–34, 237, 238, 239, 240, 242,
 247, 250, 252, 253, 261, 263 n. 4
 Stoppard, Tom 3 n. 6
 Southern Bears 37–9, 57
 sundial *see* Augustus
sympatheia 61, 63, 228
- Tarutius Firmanus 131, 151, 157–9
 (*see also* Rome; Romulus)
 Tertullian 1 n. 1
 Teucer of Babylon 105 n. 98, 106
 Teutoburg Forest, Battle of 4, 138, 144, 163
 Theocritus 191, 201 n. 52, 202
 Theogenes 132
 Thoth 68, 75, 234–9, 255–7
 (*see also* Hermes Trismegistos;
 Hermetism; Mercury)
 Thrasyllus 136, 137, 251
 Tiberius 4, 8, 134, 136, 137–61 *passim*,
 168, 170, 172, 189 n. 29, 260
 horoscope 157–8, 161 + n. 78
 sojourn on Rhodes 154–6, 158
 Tibullus 128
 travel metaphor for poetry 16, 119,
 193–4, 199, 204–5, 207, 212, 215,
 241 n. 37, 255
- trigon *see* aspect
 trine *see* aspect
 tropic signs 94, 99 n. 85, 150–3, 161, 273
 tropic points 94 n. 76, 147 n. 48,
 152 n. 65
- universe
 as a *kosmos* 18–23 and *passim*
 as a living being 16 n. 8, 17 n. 10, 63,
 216–51 *passim*
 as a society 115 n. 126, 220 + n. 9 (*see*
also Astronomica, final simile)
 as a text 195–6, 214
 as an artifact 18–20, 63 n. 14, 220 + n. 9
 creation 18, 240
 divinity 22, 34, 40, 216–51 *passim*
 immutability 21, 40, 165, 155, 217, 263
 self-revelation 111, 207, 211, 215,
 222, 223, 226, 230, 236, 258, 261
 synonymous with ‘heavens’ 19 n. 13
 two-sphere 25–6, 31, 273, and *passim*
 (*see also* astronomy; cosmology;
 macrocosm; *mundus*)
- Varro, M. Terentius 131, 159 n. 73, 244
 Varro of Atax 28
uates mundi 208 n. 61, 210, 211, 215,
 222, 239, 246, 261, 265
 Vergil 8, 28, 47–8, 135, 144–5, 147–8,
 167, 168, 175, 176, 177, 180, 182,
 183, 184, 185–8, 193 n. 37, 196–7,
 199, 200, 201 n. 52, 203, 205 n. 58,
 208 n. 63, 248–9, 251, 260
 Vitruvius 51, 54
- water metaphor for poetry 199–200,
 201–4, 215
 Whitehead, A. N. 239