Colourful Planets

The Reception of an Astronomical Detail in the Myth of Er

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Abstract

In the Myth of Er, Plato describes the ‘Spindle of Necessity’, a contraption presenting the cosmos as guided by Sirens and Fates, and ascribes different colours to the planets (*Rep.* 616e-617a). This paper argues that Plato probably used astronomical data for that passage, but possibly gave them a metaphorical sense, and discusses the likelihood of his having used Mesopotamian sources. The second half of the paper studies receptions of and allusions to the image, with context-based astronomical, political, and metaphysical features. Cicero adjusted the image to contemporary astronomy, and to the political function of the cosmic structures in the *Somnium Scipionis*. His commentator Macrobius emphasizes empirical correctness, but possibly with metaphysical undertones. Apuleius’ *Metamorphoses* alludes to the image in a portrait of Isis, perhaps to refer to her metaphysical role. Finally, Proclus interprets the Platonic passage as primarily metaphysical, and pointing to truths beyond astronomical phenomena.

Keywords

Plato – Cicero – Apuleius – Proclus – Myth of Er – astronomy – planets – colours

1 Introduction

The Myth of Er may well be one of the most fascinating, but also most frustrating, Platonic texts. The most outspoken criticism is probably that it is ‘vulgar’, a

painful shock', and 'childish',¹ but it is considered a highlight by others.² Within the Myth, the description of the Spindle of Necessity may again be one of the most mysterious passages. In this paper, I will discuss a detail from that passage: the colours of the planets (616e-617a). From the start, it was clear that for Gerard Boter I wanted to write about Plato's *Republic*, and preferably the Myth of Er. The choice for the planetary colours was inspired by the at first sight rather surprising fact that Roman authors who recycle the myth, Cicero and Apuleius, both include the planetary colours, in distinct ways that relate to the context and aim of their works. We will start from a discussion of the Platonic passage itself, and the question what Plato's sources may have been. We will then venture into a discussion of Cicero and Apuleius, explaining some differences, by addressing among other things the question whether the ascription of colours to the planets in Plato and other philosophical literature is to be understood as presenting the astronomical/astrological state of the art, philosophical imagery, or both.³ Finally, besides Cicero's *Republic*, with Macrobius' commentary, and Apuleius' *Metamorphoses*, we will also look at Proclus' *Commentary on the Republic*, in which we find yet another approach to the planetary colours.

The colour of the planets is a mere detail in the Myth of Er, but as we will see, behind this detail and its reception lies a wealth of rhetorical and philosophical choices, the discussion of which helps us understand ancient authorial strategies, and broaden our perspective on ancient philosophical astronomy.

2 The Myth of Er

Let me start by quoting the passage in the *Republic* that introduces the colours of the planets:

καὶ τὸν μὲν τοῦ μεγίστου ποικίλον, τὸν δὲ τοῦ ἐβδόμου λαμπρότατον, τὸν δὲ τοῦ ὀγδοοῦ τὸ χρῶμα ἀπὸ τοῦ ἐβδόμου ἔχειν προσλάμποντος, τὸν δὲ τοῦ δευτέρου καὶ πέμπτου παραπλήσια ἀλλήλοις, ξανθότερα ἐκείνων, τρίτον δὲ λευκότερον χρῶμα ἔχειν, τέταρτον δὲ ὑπέρυθρον, δεύτερον δὲ λευκότερον τὸν ἕκτον.⁴

1 Annas 1981, 349. Note that Annas adjusts her view somewhat (Annas 1982), and in any case focuses on how the myth relates to the theory of justice of the *Republic*.

2 Cf. the appreciation of Halliwell 2007, 445; Destrée 2014; and Morgan 2000, 207.

3 Questions about order and relative distance of the planets will be all but ignored in this paper. So will the question whether the colours have a literary role.

4 Pl. R. 616e8-617a4, ed. Slings.

That of the largest [i.e. the whorl of the largest sphere] was spangled; that of the seventh was brightest; that of the eighth took its color from the seventh's shining on it; that of the second and fifth were very similar to one another, being yellower than the rest; the third was the whitest in color; the fourth was reddish; and the sixth was second in whiteness.⁵

The Spindle of Necessity with its nested whorls, i.e. the homes for the planets in their orbits, has just been introduced, as has the order of the planets, when Plato moves on to the description of the degrees of luminosity⁶ or colours of the whorls (and by synecdoche of the planets): spangled for the fixed stars, brightest for the sun, reflected for the moon, yellowish for Saturn and Mercury, white for Jupiter, reddish for Mars, and white, but less white than Jupiter, for Venus. The astronomical model in the Myth of Er has been taken as a flight of fancy serving literary and philosophical purposes,⁷ as an actual attempt at presenting cosmological theory or visualising astronomical observations, and as a reference to ancient astronomical traditions. This particular passage, however, about the appearance of the heavenly bodies, tends to be ignored in scholarly literature discussing the Myth, perhaps because those who try to make sense of it focus on the more mathematical aspects,⁸ the order of the planets, and their relative distance and weight. A clear exception is Bidez' article "Les couleurs des planètes dans le mythe d'Er", which as the title suggests, is entirely dedicated to this passage.⁹ And in fact, it is an interesting passage, "un des traits les plus pittoresques de sa fiction du fuseau de la Nécessité",¹⁰ among other things because describing the differences in the appearances of the planets was something of a topos in ancient literature, both in astronomical sources and in non-astronomical ones.¹¹

Perhaps the first thing that stands out in Plato's description is that it seems to combine what we will find are two strands in the topos of the different appearances of the heavenly bodies: varieties in colour, and varieties

5 Tr. Reeve. His footnote says: "The outer hemisphere is that of the fixed stars; the second is the orbit of Saturn; the third of Jupiter; the fourth of Mars; the fifth of Mercury; the sixth of Venus; the seventh of the sun; and the eighth of the moon. The earth is in the center."

6 Halliwell 2007, 456.

7 See e.g. Johnson 1999, 5, who uses Plato's 'adamant' to emphasize the importance of the myth.

8 E.g. Pappas 1995, 216.

9 Bidez 1935.

10 Bidez 1935, 272.

11 For its relevance in astronomical sources, and for the possible role of Eudoxus in passing on their theories to Plato, see Bidez 1935, 267-270.

in luminosity.¹² The latter is not only a common understanding of *χρῶμα*, but fits Plato's colour theory in the *Timaeus*.¹³ At *Ti.* 67c-68d, the dialogue's eponymous character sets out a theory which has, as its primary colours, black, white, red, and 'bright' (λαμπρόν τε καὶ στίλβον, 68a7).¹⁴ All other colours are mixtures. To us, the addition of luminosity as one of the colours may seem odd, but it fits the theory of the *Timaeus*, according to which colour is a flame (φλόγα, 67c6).¹⁵

The most fascinating modern interpretation of *Republic* 616e using the *Timaeus* is probably that of Brumbaugh: the whorls present a celestial model of the cosmic equilibrium humans should imitate. At the celestial level, the equilibrium is due to the planets' order, distance, and material composition. The planets' colours, Brumbaugh proposes, are the visual effect of their material components as explained in the *Timaeus*: different material compositions result in different colours.¹⁶ As Brumbaugh himself is also aware, this reading does require some "hineininterpretieren".¹⁷ The clear advantage of this interpretation, however, is that it makes sense of the colours as fitting both Plato's physics and the project of the *Republic*.

On the other hand, we don't need the *Timaeus* to make sense of the combination of colour and luminosity, as the *Republic* itself offers two explanations for the relevance of luminosity. First, at a celestial level: it is only Sun

12 It is a known fact that colour terms in antiquity do not map easily onto ours. We will not take that into account in this paper. For a fascinating article addressing this issue and presenting an inventory of the emergence of colour categories and terms, see Warburton 2014.

13 Cf. Brisson 1992, 307.

14 See also 45b-d for the underlying theory of vision. For a wonderful interpretation of the *Timaeus* passages, see Ierodiakonou 2005.

15 More precisely, colour is the emission of fire particles—and different colours are due to different size particles (or particle combinations), cf. Ierodiakonou 2005, 224 ff. In recent discussions of this theory we generally find two camps: readers that consider his theory a phenomenological one, understanding Plato as describing natural phenomena and processes based in experience (Kranz 1912, 130 ff.); and readers rejecting this view in favour of a naturalistic theory, which ascribes colours to objects, not just to experiences (Txapartegi 2011). In the latter camp, we in turn find those who interpret the theory in terms of mixtures of pigments (which lands them in interpretative problems) and those who understand it instead in terms of the properties of the triangles of which all matter, including colour, is made. This latter reading could also be understood as a combination of the positions of the first and the last camp, i.e. of the naturalistic and phenomenological approach, insofar as the colours themselves are the result of objective interactions between the fire particles of objects of perception and the fire particles emitted by the visual body of the perceiver.

16 Brumbaugh 1951, with further support in Brumbaugh 1954.

17 Brumbaugh 1951, 175.

and Moon that are described through their radiance.¹⁸ And second, at what we might consider a symbolical or mechanical level: we read that the whorl is made of a mixture of adamant and 'other kinds' (616c5-7)—and whether we take adamant to be the hardest metal or diamond, in any case it certainly shines.¹⁹ Finally, there is no perfect match between *Timaeus* and *Republic* with respect to the specific choice of colours. In the Myth of Er, black does not figure, yellow does. This is all the more noteworthy, because in older astronomical sources, Saturn is often associated with the colour black, not yellow. Bidez may be right to suggest that the absence of black reflects Plato's decision to keep the darkness of Hades out of the Spindle of Necessity, and that yellow was chosen as the colour best representing the relative dimness of Saturn.²⁰

This brings us to the theory that the Myth of Er contains a visualisation of astronomical facts. The naked eye is in fact capable of discerning chromatic variations between the planets and stars.²¹ In this interpretation, Plato fits in ancient astronomical discussion, based on observations, of the different colours of the planets (and other heavenly bodies).²² What is more, the very colours of the planets in the Myth of Er are also present in ancient astronomical writings.²³ Plato's colours may have inspired the famous Antikythera mechanism which is the only extant ancient model of the heavenly bodies, and which probably distinguished the planets or their orbs through different materials or colours.²⁴ Another option is that Plato saw such a model and used it to describe his Spindle of Necessity. In fact, if we take the material description to be inspired by an actual model, the 'other kinds' of material, besides adamant, of which the inner whorls are made, may refer to other kinds of metal used in that model (or mineral, if adamant is diamond). In general, different types of metal do have colours such as the ones presented by Plato (yellow for gold, red for bronze, for example), and the Antikythera mechanism was indeed made of different kinds of metal. But a one to one match between colours and metals is

18 In fact, I think it is not at all unlikely that the colour theory in the *Timaeus* takes into account the experience of looking at the heavenly bodies, and especially the sun. It is looking into the sun that has the effect Plato mentions in the *Timaeus* for the 'colour' he calls bright: it makes your eyes tear (68a).

19 For a symbolic interpretation of the material of the whorl, see Johnson 1999, 8.

20 Bidez 1935, 268-269.

21 See e.g. Minnaert 1993.

22 Boll 1916, 20, 22. A staunch proponent of this view, and of the theory that Plato relied on oriental observations, is Bidez 1935, 1945.

23 E.g. Theo Smyr. *De utilitate mathematicae* 145.7-12 (ed. Hiller). See also below.

24 Kalligas 2016, 194. Another instrument using colours to distinguish the planets, but from the Hellenistic period, is an astronomical 'pinax', mentioned in Julius Valerius' Alexander novel (1.4).

not obvious.²⁵ A third option is that the myth and the mechanism refer to the same astronomical source.

The favourite candidate for such early astronomical inspiration seem to be the Chaldaeans and/or Zoroaster, but the evidence is scarce. Around 150 years ago it was not uncommon to assume that the advanced astronomical wisdom of ancient Mesopotamia and Persia was reflected in architectural features of the Ziggurats, temples constructed in rings, each with a different colour, much as in the portrait of the walls encircling Ecbatana given by Herodotus (1.98)—and subsequently, according to this tradition, also in the Spindles of Necessity.²⁶ The star of this theory, Rawlinson, however, has been shown to have overinterpreted sources and archaeological findings in order for them to match his theory, which was hence abandoned.²⁷ Recently, attempts have been made at reinstating the theory. For example, to confirm Rawlinson's assumption that the colours of Mesopotamian temples refer to the planets, James and van der Sluijs introduce sources he did not have at his disposal yet, and which show that there were indeed Mesopotamian theories about the colours of the planets.²⁸ The main text they refer to is the following:

MUL BABBAR MUL.SAG.ME.[G]AR MUL SA₅ dŠal-bat-a-nu MUL
SIG₇
dDil-bat MUL MI dSAG.UŠ: dGUD.UD.²⁹

The white star is Jupiter, the Red Star is Mars, the Green star is Venus, the Black star is Saturn, variant: Mercury

In this passage, according to James and van der Sluijs, we find the standard theory, which ascribes the symbolical colours white to Jupiter, red to Mars, green/blue to Venus, and black to Saturn. The passage they rely on also mentions Mercury, but without a colour. James and van der Sluijs nonetheless think it is fair to claim that in Mesopotamia the planet was associated with a reddish hue, and interestingly, tentatively justify this in their note, by reference to the Myth of Er (where Mercury is ξανθότερος).³⁰ Silver for the moon and gold

25 A possibility that will not be ventured into here, is that the planets were themselves each associated with a metal and its powers, as we later find it in alchemy. Cf. Procl. *In Ti.* 1.43.

26 James and van der Sluijs 2008.

27 For example, he relies on Nizami's poem *Haft Peykar* (Seven Beauties) as evidence, but this is a 12th-c. CE Persian poem, Rawlinson 1840, 128.

28 James and van der Sluijs 2008.

29 K2346 54, group F. Reiner and Pingree 1998. I thank Hasse Leemans for her help with this passage. See also James and van der Sluijs 2008, 67.

30 James and van der Sluijs 2008, 68.

for the sun are also 'standard', they state. Why they consider the colours to be symbolical,³¹ rather than based on observation, is not discussed in the paper.

Other Mesopotamian sources, such as the MUL.APIN, show some variation in the colour descriptions, but the above passage does present the most common colours.³² For Mercury, James and van der Sluijs were off the mark, as it was mostly described as black or brown. The 'variant: Mercury' in the passage quoted above seems to refer to the fact that the name 'Black star' (MUL.GI₆) may refer both to Saturn and to Mercury.³³ In any case, it is clear that there are early sources which ascribe different permanent colours to the planets, and that some of those colours are similar to those mentioned by Plato.³⁴ The most obvious difference between Plato and the Mesopotamian sources is again the colour of Saturn, but there is a discrepancy also with the colours of Mercury and Venus.³⁵

Another source mentioned for the colours of the planets are the Pythagoreans.³⁶ Their cosmology was an obvious source of inspiration for Plato. So was their colour theory, according to some. The basic colours according to the Pythagoreans, says Aëtius, were black, white, red, and yellow, which brings us somewhat closer to the Myth of Er than the colours of Ecbatana. Aëtius, however, may simply be summarizing the colour theory presented by Plato's Pythagorean *Timaeus*.³⁷ I have not found evidence, unfortunately, of a Pythagorean relation between colours and planets. Overall, Plato's planetary

³¹ *Ibid.* 62, 74.

³² Again, Hasse Leemans pointed this out to me after a careful analysis of sources for an (unpublished) bachelor's thesis.

³³ Brown 2000, 57. I thank Hasse Leemans for pointing this out to me. For other Mesopotamian sources, distinguishing heavenly realms and assigning colours to them, see Wright 2000, 34-36.

³⁴ Permanent, that is, as opposed to context dependent (e.g. rising, setting). Reiner and Pingree 1998, 199 date the tablet in question around 700 BCE. See also Corbin 1994 on the importance of colours in Sufism.

³⁵ Claudius Ptolemy, the influential Hellenistic astronomer, seems to have solved that tension by combining the two: Saturn is associated with black or green/yellow (ὑπόχλωρα). Ptol. *Tetr.* 2.10.1 (ed. Boer and Boll) about the colour effects of eclipses involving different planets: μέλανα μὲν γὰρ ἢ υπόχλωρα φανέντα σημαντικά γίνεται τῶν ἐπὶ τῆς τοῦ Κρόνου φύσεως εἰρημένων, λευκά δὲ τῶν ἐπὶ τῆς τοῦ Διός, ὑπόκιρρα δὲ τῶν ἐπὶ τῆς τοῦ Ἄρεως, ξανθὰ δὲ τῶν ἐπὶ τῆς τοῦ Ἀφροδίτης, ποικίλα δὲ τῶν ἐπὶ τῆς τοῦ Ἑρμοῦ.

³⁶ Kalligas 2016 seems convinced that there is a Pythagorean source, but does not specify the source. Yet another source could be the Egyptians, but extant sources on planetary colours are younger than the Myth of Er (J. Quack pointed me to oMM 1229 in A. Menchetti and R. Pintaudi, "Ostraka greci e bilingui da Narmuthis", CdÉ 82 (2007), p. 227-280, esp. 230-232 and 263).

³⁷ Aët. *Placita* 1.313 (Diels, *Doxographi Graeci*, 4th ed.). Phot. *Bibl.* 439a 38 ff., also reports that the Pythagoreans had the same colour theory as Plato (and Aristotle).

colours seem to reflect astronomical findings, but his sources are not clearly identified yet.

A second tradition, which seems to originate in the Hellenistic period, is the one distinguishing the planets through different adjectives expressing not colours, but kinds and perhaps degrees of radiance.³⁸ One of the earliest sources for this tradition is the ps.-Aristotelian *De mundo*. In Aristotle's own astronomical work, the planets and their visibility are of course a topos, but their *respective* colours are not, probably because it would not sit well with his theory of ether—different colours would suggest different materials, but all planets are made of the same ether.³⁹ In *De mundo*, however, we find a passage that is remarkably close to the Myth of Er, yet essentially different:

τὸ δὲ τῶν πλανήτων, εἰς ἑπτὰ μέρη κεφαλαιούμενον, ἐν τοσούτοις ἐστὶ κύκλοις ἐφεξῆς κειμένοις, ὥστε αἰετὸν τὸν ἀνωτέρω μείζω τοῦ ὑποκάτω εἶναι, τοὺς τε ἑπτὰ ἐν ἀλλήλοις ἐμπεριέχεσθαι, πάντας γε μὴν ὑπὸ τῆς τῶν ἀπλανῶν σφαίρας περιειληφθαι. Συνεχῆ δὲ ἔχει αἰετὴν τὴν θέσιν ταύτην ὁ τοῦ Φαίνοντος ἅμα καὶ Κρόνου καλούμενος κύκλος, ἐφεξῆς δὲ ὁ τοῦ Φαέθοντος καὶ Διὸς λεγόμενος, εἴθ' ὁ Πυρόεις, Ἡρακλέους τε καὶ Ἄρεος προσαγορευόμενος, ἐξῆς δὲ ὁ Στίλβων, ὃν ἱερὸν Ἑρμοῦ καλοῦσιν ἔνιοι, τινὲς δὲ Ἀπόλλωνος· μεθ' ὃν ὁ τοῦ Φωσφόρου, ὃν Ἀφροδίτης, οἱ δὲ Ἥρας προσαγορεύουσιν, εἴτα ὁ ἥλιος, καὶ τελευταῖος ὁ τῆς σελήνης, μέχρις ἧς ὀρίζεται ὁ αἰθήρ, τὰ τε θεία ἐμπεριέχων σώματα καὶ τὴν τῆς κινήσεως τάξιν.⁴⁰

The position nearest to this sphere [sc. of the fixed stars] is occupied by the so-called circle of the Shining (Φαίνων) star, or Saturn; next is that of the Beaming (Φαέθων) star, which also bears the name of Jupiter; then follows the circle of the Fiery (Πυρόεις) star, called by the names both of Heracles and of Mars; next comes the Glistening (Στίλβων) star, which some call sacred to Mercury, others sacred to Apollo; after that is the circle of the Light-bearing (Φωσφόρος) star, which some call the star of Venus, others the star of Hera; then comes the circle of the Sun, and lastly that of the Moon—and there is the limit of the ether which encompasses the heavenly bodies and the area over which they are ordained to move.

38 Adam 1902 in his commentary on *R.* 616e merges this tradition with the Platonic text, but it seems to be post-Platonic.

39 See e.g. *Mete.* 342a33–b9, where Aristotle explains red and purple colours in the night sky as light travelling through the air, which functions as a medium causing different effects, depending on its density. He considers this the superposition of 'fiery colour' (πυρώδης) and white. Likewise, the stars when rising or setting on a hot day may *appear* crimson-red.

40 Ps.-Arist. *Mu.* 392a18–31, ed. Lorimer, tr. Forster.

Instead of different colours, we here find nominalized adjectives for the heavenly bodies (except for sun and moon), that primarily express varieties of radiance (shining, beaming, fiery, glistening, and light-bearing). These may still be an indication of their different appearances, and the shade of radiance—‘fiery’ (πυρόεις), for example, seems to indicate Mars’ reddish hue, and ‘glistening’ or ‘scintillating’ (στίλβων) the apparent twinkling of Mercury (due to its appearance at low altitude).⁴¹ This second type of planetary description, besides the Platonic one giving the planets different colours, is not uncommon after the 2nd century BCE—and we find it even in the text on the inside of the cover of the Antikythera mechanism.⁴² Ps.-Plutarch’s reference to them in his work on the order of the heavenly bodies led Copernicus to believe they are Platonic, but in his dialogues they are not used.⁴³

We also find combinations of the lists of colours and luminosities, as in our next author’s reworking of the Myth, Cicero’s *Somnium Scipionis*, which imitates the myth, but uses radiance, not colour, or in Theon of Smyrna, who adopts *both* the radiant adjectives *and* the Platonic colours.⁴⁴

3 Cicero

Cicero, like Plato, includes a cosmology, if we may call it thus, in the *Somnium Scipionis* (*Rep.* 6.16–17), which in several respects is very similar to that of the Myth of Er—not only because, like the Myth of Er, it is by some considered a problematic part of the work as a whole.⁴⁵ Like the Myth, the Dream also mentions the colours of the heavenly bodies, although the image is somewhat toned down compared to that of Plato:

41 Bos 1989, 94–97 also sees a gradation in the adjectives, of brightest (Saturn) to least bright (Venus).

42 Kalligas 2016, 193 n. 59. For a Roman source see Plin. *Nat.* 2.16.

43 Diels, *Dox. Gr.* 344, see Rosen 1955, 25–26.

44 Theon Smyr. *De utilitate mathematicae* p. 130.22ff. and p. 145.7–12 (ed. Hiller)–12: καὶ τὸν μὲν τοῦ μεγίστου ποικίλον, τὸν δὲ τοῦ ἑβδόμου λαμπρότατον, τὸν δὲ τοῦ ὀγδόου χρώμα ἀπὸ τοῦ ἑβδόμου ἔχειν προσλάμποντος, τὸν δὲ τοῦ δευτέρου καὶ πέμπτου παραπλήσια ἀλλήλοις, ξανθότερα ἐκείνων χρώματα, τρίτον δὲ λευκότετον χρώμα ἔχειν, τὸν τέταρτον ὑπέρυθρον, δεύτερον λευκότητι τὸν ἕκτον. Cf. Suda s.v. ἐποχή.

45 The parallel with the Myth of Er is already attested by Augustine, Eulogius, and Macrobius. For the position of the Dream in the work as a whole, see Pohlenz 1931. Note that Augustine all but ignored the Dream, which he thought expressed a criticism of the Myth of Er: *C.D.* 22.28 (*quod quidem sic tangit in libris de re publica Tullius ut eum (sc. Platonem) luisse potius quam quod id verum esse adfirmet dicere voluisse*), see also MacCormack 2013, 282.

ex quibus unum globum possidet illa, quam in terris Saturniam nominant. deinde est hominum generi prosperus et salutaris ille fulgor, qui dicitur Iovis; tum rutilus horribilisque terris, quem Martium dicitis; deinde subter mediam fere regionem sol obtinet, dux et princeps et moderator luminum reliquorum, mens mundi et temperatio, tanta magnitudine, ut cuncta sua luce lustret et compleat. hunc ut comites consequuntur Veneris alter, alter Mercurii cursus, in infimoque orbe luna radiis solis accensa convertitur.⁴⁶

One of these [sc. 7 revolving planetary] globes is of that [star] which on earth is called Saturn. Next comes that splendor called Jupiter's, which brings fortune and health to mankind. Beneath it is the red one, terrible to the dwellings of man, which you assign to Mars. Below it and almost midway of the distance is the Sun, the lord, chief, and ruler of the other lights, the mind and guiding principle of the universe, of such magnitude that he reveals and fills all things with his light. He is accompanied by his companions, as it were—Venus and Mercury in their respective orbits, and in the lowest sphere revolves the Moon, set on fire by the rays of the Sun.

Cicero does not present a full list of planetary adjectives, neither of colours nor of luminosity. Instead, colour is given only to Mars, and luminosity is ascribed, besides to Sun and Moon, to Jupiter. Jupiter has a fortune-bringing *fulgor*, Mars a misery-bringing red, the Sun is the leader of all other lights (*dux et princeps et moderator luminum reliquorum*), and the moon shines with the light of the Sun. It seems likely that Cicero's astronomy is the Platonic one, but revised on the basis of Hellenistic sources (Aratus, Posidonius, Antiochus of Ascalon), and aims at presenting astronomical observations.⁴⁷ One could say that the path through Hellenistic astronomy back to Plato is even sketched by Cicero himself, in the first book of *De republica* (1.22): Philus there tells us about a mechanical model of the heavens (similar to the Antikythera device, perhaps) invented by Archimedes, and presenting both the fixed stars and the wandering stars. Cicero relates this mechanical model to Aratus' *Phaenomena*, which he considers a poetic rendering of the theory of the heavenly bodies presented by Eudoxus, 'a pupil of Plato's, they said'.⁴⁸

46 Cic. *Rep.* 6.17, tr. Keyes, modified.

47 See e.g. Miller 2011, Gee 2013. Cf. Glei 1991.

48 Cicero does present it as if Aratus and Eudoxus only present the fixed stars, however. On this passage and its role in the *Republic* as a whole, see Gallagher 2001.

It is clear that Cicero considered, not just astronomy, but the different colours of the heavenly bodies a matter of significance or interest, also in other works. First a detail from his *Aratea*. Aratus in his own discussion of the names of constellations only points out that there are many stars which are *alike* in size and colour (πολλέων δ' ἐπὶ ἴσα πέλονται | μέτρα τε καὶ χροίη, Arat. 377-378, implying, but not saying, that some stars are different in size and colour), and that astronomers, who could not name and memorize them all, therefore used their relative proximity in constellations as a way to distinguish them from one another. Cicero in his embellished translation instead emphasizes that some stars *stand out* in both size and colour (*vario lumine*, Arat. 160-163) and it is from those that the astronomers started in forming constellations, and distinguishing and naming the stars. Gee suggests that for Cicero technical accuracy is not important in this passage, as he is more interested in the parallel between artistic and cosmic creation—as the stars spangle the sky, so the poet uses them to decorate his work—,⁴⁹ but Cicero's embellishment in this case actually does seem to qualify as an attempt at improving on Aratus' work from an empirical perspective.

Second, in the treatment of the heavenly bodies in *N.D.* 2.49-55, we find the same heavenly bodies, Sun, Moon, and the five *quae falso vocantur errantes* (2.51). This time, however, the respective appearances of those five are introduced with exactly the same radiance-expressing adjectives (in Greek) we also found in the *De mundo*.⁵⁰ A reason for Cicero preferring adjectives of radiance to colours in the *N.D.* may be that he there also explicitly addresses the substance the heavenly bodies are made of, i.e. their consisting of the purest ether: *ex mobilissima purissimaque aetheris parte gignuntur neque ulla praeterea sunt admixta natura totaque sunt calida atque perlucida* (2.39). Another option, of course, is that his Hellenistic sources used those terms (Cleanthes is explicitly mentioned in 2.40).

Returning now to the *Somnium Scipionis*, it is important to point out that, like Plato, Cicero not only presents the astronomical state of the art, but also uses astronomy as part of his metaphorical toolbox. At a basic level, colour and radiance emphasize the astrological role of the heavenly bodies: Jupiter brings prosperity, Mars brings adversity. At a deeper level, however, there is a meaningful connection between cosmology and politics in *De republica*. As

49 Gee 2001, 533.

50 I will resist the temptation to dive into the rabbit hole of where in our sources this set of adjectives first shows up, and just point out that Aratus uses most of them (*Frg.* 11.2.134 ed. Zuretti) and Manetho (3rd c. BCE) seems to use them quite frequently in his *Apotelesmatica* (*passim*).

Gallagher points out, there is a parallel between sun and soul, but also between sun and the *rector rei publicae*, or Scipio Africanus (and between moon and Aemilianus, perhaps).⁵¹ The emphasis on Jupiter and Mars may be understood as part of the political message of the dream: Jupiter as a divinity is a central figure, as part of the image of the Roman triumph.⁵² Likewise, we may take Mars to symbolize the battles Scipio Aemilianus had to fight.

In Macrobius' 4/5th c. CE Platonizing commentary on the *Somnium Scipionis*, interestingly enough, we find a rather down to earth approach to the planets and their colours. In general, Macrobius considers the descriptions of the constellations to be among the core elements of the *Somnium Scipionis*, as of the Myth of Er.⁵³ He defends both Myth and Dream as stories contributing to the overall aims of the arguments in Plato and Cicero, and counters Colotes' criticism of using myths and fables in what should be a serious treatise, by pointing out that philosophers sometimes veil truth with allegory, because 'nature does not enjoy an open and naked exposition of herself' (*inimicam esse naturae apertam nudamque expositionem sui*, 1.2.17). Moreover, the mention of the heavenly bodies gives the dream a 'universal' character, according to Macrobius (1.3). At the same time, however, in the details of his exegesis, Macrobius does not explain how to understand that universal character, but instead emphasizes the accuracy (*diligens*, 1.17.5) of Cicero's description. And despite his overall Platonizing angle, Macrobius explains that accuracy as due to a combination of an empirical foundation and reasoning—especially concerning the planets and their order, but also, we will see, other characteristics, among which their colours.⁵⁴

Although Macrobius does not dedicate a chapter to discussing the radiance of the planets, he brings it up in the chapter on the order of the planets, and in part at the service of that discussion.⁵⁵ For example, he first elaborates on the fact that the moon is the only body 'borrowing', rather than emitting, light (1.19.9). The earth is like the moon in borrowing light, although it does

51 Gallagher 2001, 513–516.

52 Cf. *Rep.* 1.56, which connects astronomy and politics. On the imagery see further Stevens 2006. On the political reading of the *Somnium Scipionis* see McConnell 2017.

53 Macr. *Somn.* 1.1.2: *Adiecta quadam sphaerarum vel siderum non otiosa descriptione* (ed. Stahl). I did not have access to the edition of Armisen-Marchetti.

54 1.19.8: *Perspicacior tamen observatio veriore ordinem apprehendit, quem praeter indaginem visus haec quoque ratio commendat quod lunam quae luce propria caret et de sole mutuatur; necesse est fonti luminis sui esse subiectam*, Cf. 1.18.6: *... nec negare hoc quisquam poterit quod visus adfirmat*.

55 For the idiosyncracies of his view on that order, see Stahl's introduction.

not shine but only becomes bright.⁵⁶ Macrobius' reason for discussing the radiance of the moon first is that it contributes to his argument concerning the order of the heavenly bodies: the moon shining with borrowed light is evidence of the fact that it lies beneath the source of light, i.e. the sun (1.19.8). If it had been beyond the sun, it would have been 'located in the purest ether' as are the other planets (*locatae in ipso purissimo aethere*, 1.19.9), and hence shone by itself, because everything that is in that ether is its own natural light.⁵⁷

For Mars and Jupiter Macrobius offers again a very down-to-earth analysis: 'When [Cicero] calls the brilliance of Jupiter propitious and helpful to the human race, and the ruddiness of Mars terrible to the world, he draws from the colours of both planets, for Jupiter glistens and Mars has a reddish glow (*nam fulget Iovis [sc. stella], rutilat Martis*)' (1.19.19). So again, Macrobius appeals to our actual empirical information. He does not really accept the astrological views, concerning the prosperity and adversity due to Jupiter and Mars respectively, but he willingly presents the kind of views that may have inspired Cicero, and which he found in one source (*apud unum*): Ptolemy based his astrology on cosmic hierarchy, in which Sun and Moon play a beneficial role in guarding life, and those planets which have a numerical relation with that of either Sun or Moon are thereby in harmony with them and hence also beneficial, but any planet (Mars and Saturn are the cases in point) which does not have such a numerical compatibility, is hence not beneficial to life (1.19.19-26). By way of alternative, it seems, Macrobius also adds Plotinus' view, that the planets may be called 'beneficial' or 'harmful' in the sense that they give us premonitions, although they themselves do not actually influence our lives directly (1.19.27).

Finally, the description of the Sun is, according to Macrobius, no mere rhetorical fancy, but a correction of Plato's view. Whereas Plato in *Tim.* 39b describes the Sun as the source of all light, Cicero adjusts this view on the basis of the fact that the other planets (except earth and moon, of course) light up with their own light as well, albeit a smaller one than that of the Sun (1.20.1-3).⁵⁸

56 Macrobius also briefly discusses the visibility of Venus and Mercury, as being greater when they are below the Sun, 1.19.7.

57 Note that for Macrobius ether is the material space, as it were, in which the planets are located, rather than the matter of the planets themselves, although at 1.21.33 he also speaks of ether in the planets (*in ipsis est aether semper idem*). Macrobius presents a strange view of the moon as shining due to being partially translucent, that we cannot discuss here. There is some similarity between his view and that of the Stoics, although they considered the moon's shining a radiance due to the alteration of its material mixture by the addition of sunlight (Pinto 2017).

58 Note that elsewhere Macrobius tends to characterize Sun and Moon as the brilliant planets and the other five as the errant ones (*duo lumina et vagae quinque*, 1.14.23, 1.17.16, 1.18.4).

On the whole, despite his approach to the *Dream of Scipio* as veiled truth, Macrobius take the cosmology to contain a literal and accurate description of the planets, and in his commentary focuses on astronomical details. The tone in these passages is also quite different from the far more poetic descriptions of Neoplatonic metaphysics, as e.g. in 1.14.15: 'from the Supreme God even to the bottommost dregs of the universe there is one tie, binding at every link and never broken'. We may tentatively find a dash of Neoplatonic metaphysics, however, even in Macrobius' factual description of the luminosity of Sun, Moon, and Earth, if we interpret it as sketching something like a chain of light representing the metaphysical tie: the Sun shining with its own light, the Moon as reflecting the Sun's light, and the Earth as merely lighting up with that same light.⁵⁹

To sum up, we could say that in Cicero's reworking of the Myth of Er, not only is the astronomical detail closer to observed fact, but those planets that are described as having radiance or colour, moreover fulfill a concrete role in the political imagery of the work. Macrobius, on the other hand, in his commentary on the *Somnium Scipionis*, focuses almost exclusively on astronomical details and leaves out the metaphorical role which the planets and their colours may have played, but may have in mind a Neoplatonic metaphysical structure in describing the heavenly bodies.

4 Apuleius

Another metaphysical use of colourful heavenly bodies is to be found in the work of 2nd c. CE Platonist Apuleius. In the last book of his *Metamorphoses*, the protagonist Lucius tells the reader about his transformation from donkey back into a human being, after the appearance of the goddess Isis, *regina caeli* (11.2). This book has some features that remind the reader of the Myth of Er. One of them may be the portrayal of the goddess' colourful attire:⁶⁰

⟨vestis⟩ multicolor, bysso tenui pertexta, nunc albo candore lucida, nunc croceo flore lutea, nunc roseo rubore flammida; et quae longe longaeque etiam meum confutabat optutum palla nigerrima splendescens atro nitore, quae circumcirca remeans et sub dexterum latus ad umerum laevum recurrens, umbonis vicem deiecta parte laciniae, multiplici

59 Similar to the triad of unparticipated cause, participated cause, and participant (Procl. *ET* 21).

60 For other Platonic resonances in book 11 of the *Metamorphoses*, see Drews 2015.

contabulatione dependula, ad ultimas oras nodulis fimbriarum decoriter confluctuabat. Per intextam extremitatem et in ipsa eius planitie stellae dispersae coruscabant, earumque media semenstris luna flammeos spirabat ignes.⁶¹

Her robe, woven of sheer linen, was of many colours, here shining with white brilliance, there yellow with saffron bloom, there flaming with rosy redness; and what most especially confounded my sight was a deep black cloak gleaming with dark sheen, which was wrapped about her, running under her right arm up to her left shoulder, with part of its border let down in the form of a knot; it hung in complicated pleats, beautifully undulating with knotted tassels at its lower edge. Along the embroidered border and over the surface of the cloak glittering stars were scattered, and at their centre the full moon exhaled fiery flames.

This beautiful and evocative description has been understood as fitting traditional elements of the Isis cultus,⁶² as a rhetorical tour de force, and an oxymoron expressing the supernatural status of the vision,⁶³ and it has moreover been considered an echo of the Spindle of Necessity of the Myth of Er. The latter may seem far-fetched at first sight, but a convincing case for this interpretation has been made by MacDougall.⁶⁴ In general, one could say that there are plenty of arguments in favour of any far-fetched reading of the *Metamorphoses*, not least Apuleius' well-known fondness of allusion and symbolism, and the many layers in his writing.⁶⁵ And as MacDougall points out, the cosmological context is given by Isis' star-spangled cloak, the moon at the center of the cloak and in her crown, and her epithets of queen of heaven and mother of the stars.⁶⁶ Moreover, also in other sources, Isis is portrayed as wearing seven cloaks which represent the planets.⁶⁷ Thus the possibility of this description presenting a cosmocopy is there. The particular colours given to the robe, plus the fact that Apuleius is a Platonist, are the final reasons for MacDougall to

61 Apul. *Met.* 11.3-4, tr. Hanson. For a detailed commentary see Keulen et al. 2015.

62 For which see Griffiths 2015, 128-129. See however also the criticism of an earlier traditional reading of Griffith's in Bianchi 2006, 490 ff.

63 Moretti 2018, 150-152.

64 MacDougall 2016. For a more general discussion of parallels between *Republic* and *Metamorphoses*, see Ulrich 2020.

65 Finkelpearl 1998.

66 *regina caeli* 11.2, *mater siderum* 11.7. Cf. Marcovich 1986.

67 Marcovich 1986 refers to Isiac inscription *Sylloge* 254 and Hippolytus, *Refutatio* 5.7.23.

investigate the parallel with the Spindle.⁶⁸ The dark, star-spangled cloak would stand for the outer whorl, the sphere of the fixed stars, and the colourful robe would stand for the inner whorls of the different planets and their respective colours.⁶⁹ Yellow of second and fifth (Saturn and Mercury), white of third and sixth (Jupiter and Venus), and red of the fourth (Mars). The parallel does not really fit for sun and moon, as the moon stands at the center of the black cloak, where in the Myth of Er the moon has its own whorl, and the sun seems absent altogether. Both are comprehensible in the context of Isis, however, as the moon stands for Isis herself and hence obtains a more prominent position, and the sun is Osiris' star, and hence has no place in Isis' outfit.

In other works, Apuleius also describes the heavenly bodies, but each time apparently with a different source in the background, such as *Timaeus*, *Phaedrus*, or *De mundo*, and as a consequence with different features as well—and never mentioning planetary colours. For example, in his own *De mundo*, Apuleius uses latinized versions of the very same nominalized adjectives we know from ps.-Aristotle's *De mundo* and from Cicero as alternative names of the planets:⁷⁰ Phaenon, Phaethon, Pyrois, Stilbon, and Phosphorus. In *De Platone* 1.11, instead, Apuleius is most interested in the order of the planets, as we know it from the *Timaeus*; in *Florida* 10 he gives an overview of the planetary influences on life on earth, and *De deo Socratis* 2 echoes the twelve Olympians of the *Phaedrus*. Overall, then, Apuleius does not present a consistent view of the planetary realm, but instead always presents context-dependent descriptions of the planets and alludes to or uses the sources that fit that context best.⁷¹

Let us briefly return to the colours of Isis' robe, for a tentative interpretation of how they fit the specific context of the *Metamorphoses*. What is the point of the elaborate description of Isis' appearance? Of course, it fits in a tradition of elaborating on Isis' divine regalia. But if Apuleius indeed wants us to think of the Myth of Er, then the colours of her robe may tell us that Isis represents, not just the moon as the partner of the sun, but a whole cosmos. This is where Apuleius' Platonic metaphysics may come in. As Drews shows, Isis elsewhere stands for the divine unity that consists of a plurality, whereas

68 MacDougall 2016, 257.

69 As suggested by Marcovich 1986. This reading makes more sense than Griffiths 2015, 128–129, as he instead connects Isis' outfit only to traditional portraits of the goddess. Apuleius, I would say, is consciously adjusting those traditional portraits and thereby adds a layer of meaning.

70 Apul. *Mun.* 2. On the relation of this work to the Greek original, see Finamore 2006.

71 Cf. Hunink 2001, 124 n. 1.

Osiris, as the Sun, stands for the One itself.⁷² A tentative Platonizing interpretation of the robe, then, could be that Isis in full attire stands for the one intelligible cosmos, the Mind—inferior to the One, but imitating it.

5 Proclus

Finally, let us turn to Proclus' fifth-century CE interpretation of the Myth of Er. As is clear from the beginning of his 16th essay, which is devoted entirely to explaining the Myth of Er, Proclus interprets it both literally and metaphorically—literally as presenting the rewards of justice, and metaphorically—or one could also say analogically, which in turn comes down to metaphysically—as representing the cosmic paradigm of the Socratic state (*In R.* 2.99.12 ff.).⁷³ The celestial gods, in that metaphysical imagery, are the guardians of universal and particular cosmic laws.⁷⁴

Of the more or less 250 pages of commentary on the myth, Proclus spends three pages on interpreting the colours of the planets (*In R.* 2.222.25–225.29). He first discusses the colours as such, and then dives into their metaphysical significance, in two stages. The fixed stars are varied, the Sun is brightest, because it is bright in essence, next up is the Moon, which is bright by participation—Proclus immediately starts preparing the metaphysical interpretation by using metaphysical notions to describe the derived luminescence of the moon: κατ' οὐσίαν ... κατὰ μετουσίαν (223.6–7). Saturn and Mercury are 'yellowish' (ξανθόν πως): not just plain yellow, but 'yellowier than the bright ones' (τῶν λαμπρῶν ξανθότερον), as a result of a dilution (ἀνείται τὰ τούτων χρώματα), namely the mixture of brightness with white and red (223.8–13, cf. *Tim.* 68b). Jupiter and Venus are white, the latter less so, and Mars is very red, 'as we in fact see it is' (223.15–16).

Proclus explains why each colour suits the planet or planets it belongs to, the presence of pairs of colours, and the exception of the colour of Mars, which is not in a pair, in his first metaphysical interpretation (223.16–224.6). This interpretation relies on both the colour theory and the elementary theory of the *Timaeus*, but doesn't sit well with either.

Jupiter and Venus are planets of harmony and mixture, and hence they form a pair, and white (but not so bright as to hurt the eye) is the appropriate colour,

72 Drews 2015, 520.

73 See also Martijn (forthcoming) and Dillon 2015.

74 *In R.* 2.100.13–15 (ed. Kroll): Τρίτον δὲ αὐτοὺς τοὺς θεοὺς τοὺς οὐρανίους, φύλακας ὡς ἀληθῶς ὄντας ἐγκοσμίους τῶν παντοίων ἐν τῷ κόσμῳ νόμων ὀλικῶν τε καὶ μερικῶν.

as it makes darkness disappear. Saturn and Mercury, who combine and bring together, are also in a pair, and are yellow, which itself is a combination of all other colours, namely of white, red, and bright. 'All other colours' here must refer to 'planetary colours', not the basic colours of the *Timaeus*, as in that case black is missing. We will return to that below. The leaders, Sun and Moon, have the only 'colour' that does not require another to be seen: brightness. All other colours (now perhaps including black) are visible because of brightness. Sun and Moon are a pair because they have the role of parents. Brightness, as 'a different kind of fire', namely a self-sufficient colour, matches their nature, because they are the causes of visible things, and 'it is the only colour that carries an image of intelligible light' (224.5-6). Mars is the only red planet, and as such is not part of a pair, because of Ares' divisive character. Its colour, like its solitude, resembles (πρέπει, 223.20) this character. In a roundabout way, Proclus seems to explain this by connecting the colour red with the element of fire, which is the sharpest element, that cuts and divides.⁷⁵ This theory does not really fit the colour theory of the *Timaeus*, in which not red, but bright is the sharpest colour (*Tim.* 67e-68a), and red instead emerges when an intermediate colour, between bright and white, meets the moisture of the eyes (68b). It also does not fit Proclus' astronomy, according to which celestial fire does not burn or cut, but only illuminates in the broadest sense of the word (*In Ti.* 3.128.30 ff.). It seems, then, that Proclus gives a rather ad hoc interpretation of the colours.

As a kind of intermezzo (*In R.* 2.224.6-17), before moving on to the deeper metaphysical explanation, Proclus adds the reason for the absence of black and the presence of yellow in the overview of the colours of the planets: black is missing because it is the result of a mixture of fire and earth, and hence will not be found among the celestial bodies, yellow is added instead, as being akin to the other three. This addition tells us that Proclus thinks his readers will assume that the colours of the planets in the Myth of Er are no different from the fundamental colours of the colour theory of the *Timaeus*, which has black as one of the primary colours. Unfortunately, Proclus' explanation for the absence of black also contradicts part of his own astronomical theory, as expounded in his *Commentary on the Timaeus*. There, he maintained that among the heavenly bodies we find all four elements, including earth—albeit

75 *In R.* 2.223.19-23: ὑπερέρυθρον χρώμα ... < 16 > ... πρέπει γὰρ τῷ μὲν [ὡς] χαί[ροντι] διακρίσεσιν καὶ τῇ ἑτερότητι [τὸ] ... ὃν καὶ τὸ χωρὶς ἄλλων ἔχειν τὴν ιδιότητα τῆς χροῶς καὶ τὸ εἶδος μέντοι πολὺ τὸ πυρῶδες ἔχον καὶ πρὸς τὸ ὀξύ καὶ διαιρετικὸν ἐπιτήδειον. The text is corrupt, but the overall sense is clear. The Platonic text in the background is the description of the elements in the *Timaeus* (*Tim.* 56ab).

all in a special celestial mode. The presence of the solidity of 'heavenly' earth explains why some celestial bodies are more visible, and block our view of what is behind them.⁷⁶ Perhaps we must assume that according to Proclus, for the colour black, earthly earth is needed, and in good quantity, not just a dash of celestial earth.

The deeper metaphysical explanation Proclus then moves on to, is an elaboration of the first version, for each pair and for the solo planet Mars (*In R.* 2.224.18-225.29), connecting colour to metaphysical role. Sun and moon pair up as father and mother, Jupiter and Venus as transcendent perfective and vivifying causes of what is created, and Saturn and Mercury as causes of cognition.⁷⁷ Mars works solo, because, Proclus emphasizes once more, he is the cause of division. The three pairs, not just of planets, but of colours, together constitute what is for Proclus a central triad of being, life, and cognition, as causes of the material world: brightness for being, which comes first, white for living, as closest to brightness and as chasing off the darkness of non-living, and yellow for cognition as combining the other colours, or as moving between being, life, and difference; as unifying multiplicity and splitting up unity into multiplicity—which is what we do in cognition. The redness of Mars, as the only cause of division, imitates Otherness or Difference, the intellectual source of separation at the level of Being (or 'the Membrane', as it is called in the Chaldaean Oracles).⁷⁸

The most interesting feature of Proclus' interpretation is perhaps reflected in his brief discussion of the relation between text and reality. His concluding paragraph (*In R.* 2.225.15-29) starts with the statement 'So the colours are images (εἰκόνες) of these things'.⁷⁹ And he goes on to point out that if the planets are not *seen* to have the exact colours Plato ascribes to them, that is because he chose to give them the colours that best fit their qualities and powers. Or, if that (I guess: literary freedom⁸⁰) is not an acceptable explanation, we may offer two or even three arguments from the physics and the epistemology of

76 *In Ti.* 3.128.14-129.9, cf. 110-114. Fire is always present, but in some cases mixed with other elements. Cf. Proclus' own elementary theory, according to which fire is primarily visible, but needs admixture with other elements to actually be seen (*In Ti.* 2.7.33-10.16).

77 Each member of a pair, moreover, is given its own role to play, in a nice chiasmic addition which also establishes an ascent: intellectual knowledge for Saturn, deductive for Mercury; cause of generation for the one (Festugière suggests Venus), of conversion for the other (that would be Jupiter); creation of forms for the Sun, and of material variety for the Moon (*In R.* 2.224.24-225.1).

78 For references to the 'Membrane' see Festugière 2012 n. 6 *ad loc.*

79 *In R.* 2.225.15: Τὰ μὲν οὖν χρώματα τούτων εἰκόνες.

80 Another option, besides literary freedom, is that Proclus has in mind the difference between 'vulgar' astronomy and 'real' astronomy (inspired by Pl. *Th.* 173e6 and discussed

colours: first, the physical argument is that from far away colours may not be perceived as they really are, because of the matter (air) they travel through; second, we watch them at night (which Proclus probably considers an additional argument for not seeing colours the way they are); and finally, when we see colours next to one another, they ‘fall upon our eyes differently because of one another’. As Festugière points out, this seems to be a general point of colour theory, unless Proclus thinks the night sky is black.⁸¹ Another possible interpretation, however, is that Proclus is thinking of proximity: in ancient astronomy, it was known that planets have different colours under different circumstances, including the proximity of other bodies or the horizon.⁸² So the colour of a heavenly bodies may indeed appear to change ‘because of another’.

Proclus’ point in this last discussion is probably not that the colours Plato mentioned are not the ones the planets actually have, but that the focus on phenomena is not Platonic. Proclus ends by saying ‘enough with investigating the activities of the stars from their colours as (if?) from images’ (ἐκ τῶν χρωμάτων ὡς ἀπ’ εἰκόνων, *In R.* 2.225.27-29). His point here, apparently, is that we need not choose between a literary and a metaphorical understanding of the cosmography in the *Republic*, as long as we look beyond the phenomena. This fits his view that Platonic images are often metaphysical images—i.e. are about entities that are themselves copies of other entities. For example, to some extent the colours of the planets match our perception—Mars does in fact look reddish to us—so the description is certainly not only a matter of allegorizing. For Proclus, rhetorical or literary embellishments are often, if not always, rooted in metaphysical relations. Moreover, in general, since Proclus at least at some point takes the colour theory of the *Timaeus* to be in the background of the Myth of Er, this would also imply that the colours ascribed to the planets are therefore due to their material compositions and as such real. That this is the case, and that Proclus also assumes there to be a connection between colour and planetary character, is clear again from the case of Mars: red is a fiery colour and fire is the sharpest of elements.⁸³ On the other hand, the uneasy fit between astronomy, colour theory, and interpretation of the Myth of Er could suggest that Proclus *treats* the colours as literary images,

by Proclus at *in Ti.* 1.202.15-16), where the former studies phenomena, and the latter is concerned with invisible causes. I thank an anonymous reviewer for reminding me of this.

81 Festugière 2012 *ad loc.* It is not clear to me what colour Proclus would ascribe to the night sky.

82 See above n. 35 and 39; and see Boll 1916.

83 In itself, such a connection also fits Proclus’ systematicity, as well as an old principle of ‘same colour means same activity’. For the latter see Bidez 1935, 266.

which allows him to introduce a broader variety of metaphysical elements into his interpretation.

6 Conclusion

What is at stake in our understanding of the colours of the planets in the Myth of Er? On the one hand, they are but a minor detail. We could simply accept them as a rhetorical flourish. The colours in the description of the Spindle, as the colours in Isis' robe, make the images all the more memorable and vivid. On the other hand, one might consider subscribing to the Neoplatonic exegetical principle that in Platonic dialogues, and perhaps all carefully crafted ancient philosophical texts, all details should be understood as contributing to the purpose of the text as a whole—and in a Platonic context this principle might be even more relevant where we are dealing with *perceptible* details such as colours. In that case, whenever an ancient philosopher gives the planets colours, our interpretation should try to make sense of them. What Plato's inspiration for the planetary colours may have been, whether Mesopotamian, or Pythagorean, or other, we may never know. We may, however, select a most appealing interpretation of his description of the planets, namely that of Brumbaugh: the planetary colours as visual indications of cosmic harmony.⁸⁴ Although it requires a fair amount of exegetical liberty, its appeal lies in the fact that it does justice to a feature Plato's Myth of Er and Cicero's *Somnium Scipionis* seem to share and that fits the styles of these two authors: they both combine metaphor and fact, in this case, astronomical state of the art—the two poets use the shiny stars, as they really are, not just to decorate their work, but to make a point about what the world is really like, and how micro- and macrocosmos relate. If our interpretations are correct, in Plato's case, the point is cosmological and ethical, in Cicero's case, it is cosmological and political. Their commentators Proclus and Macrobius instead focus on metaphysics and astronomy, but the same relation between the phenomenal truths about the stars and the use of those truths as images of something else is at play here as well, namely the metaphysical ties between the planets and the earth. Apuleius, finally, stands apart in that he does not describe the cosmos itself, but a garment, which of course does refer to the cosmos. In his case, that reference is again not just rhetorically appealing, but also in addition has intertextual weight as a reference to the Myth of Er, and finally a possible deeper layer

84 In fact it is kind of surprising that Proclus does not come up with this theory—it fits his reading of Plato so well.

as portraying the metaphysical function of Isis as the intelligible cosmos or divine Mind.

It is colourful details such as these, and the variety of ways in which different authors set them to work in function of their overall literary, philosophical, scientific, and political purposes, that make antiquity, to misquote Gerard Boter, the addictive Disney World that it is.⁸⁵

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85 Boter 2011, 285-286 actually refers to the online Royal Library of the Netherlands as an addictive "Efteling".

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