

HEAVENLY STUFF: PETER AURIOL ON THE MATERIALITY OF ANGELS AND CELESTIAL BODIES

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ABSTRACT. Take three, very different kinds of entities: Sophie the cat, Venus the planet, and Gabriel the archangel. Imagining these entities, one may be tempted to picture Sophie and Venus as something material, while Gabriel as something immaterial. Peter Auriol, an early fourteenth-century Franciscan theologian, disagrees. He thinks that while Sophie and Gabriel possess matter, Venus does not. In this paper I trace what led Auriol to endorse these seemingly implausible claims, attributing matter to certain spiritual beings and yet denying it of certain physical ones. I also examine the view that emerges from the combination of these two positions, and show that they, far from being irreconcilable, point to a particular conception of matter. According to this conception, matter is not to be treated as the physical stuff that makes something a body, nor as a mere substrate of natural change, but as a subject in pure potency that can take on multiple forms.

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INTRODUCTION

Take three, very different kinds of entities: Sophie the cat, Venus the planet, and Gabriel the archangel. Imagining these entities, one may be tempted to picture Sophie and Venus as something material, while Gabriel as something immaterial. Peter Auriol, an early fourteenth-century Franciscan theologian, disagrees.¹ He thinks that while Sophie and Gabriel possess matter, Venus does not.

This is a surprising view, one that was not customarily endorsed even in the medieval period. For instance, when Aquinas discusses in his commentary on the *Sentences* whether angels are composed of matter and form, he distinguishes three possible positions one may take on the issue. The first of these he attributes to Avicenna; this view, later also known as ‘universal hylomorphism,’ holds “that matter is created in all substances, and that there

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1. There has been a rising interest in Auriol recently. Concerning some of his metaphysical views, see, e.g., William O Duba, “Aristotelian Traditions in Franciscan Thought: Matter and Potency according to Scotus and Auriol,” in *The Origins of European Scholarship*, ed. Ioannis G Taifakos (Stuttgart: Franz Steiner Verlag, 2005), 147–161 and William O Duba, “The Legacy of the Bologna *studium* in Peter Auriol’s Hylomorphism,” in *Philosophy and Theology in the ‘Studia’ of the Religious Orders and at Papal and Royal Courts*, ed. Kent Emery, William J Courtenay, and Stephen M Metzger (Turnhout: Brepols, 2012), 277–302; Russell L Friedman, “Is Matter the Same as Its Potency? Some Fourteenth-Century Answers,” *Vivarium* 59 (2021): 123–142; Robert Pasnau, *Metaphysical themes, 1274-1671* (Oxford: Clarendon Press, 2011), *passim*; the papers in the special issue of *Vivarium* dedicated to Auriol (2000); and the helpful bibliography on the Peter Auriol webpage, peterauriol.net.

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is one [kind of] matter in all things.”² The second position is what Aquinas attributes to Avicenna, maintaining that although there is no matter in spiritual beings (in other words, no ‘spiritual matter’), the matter of all corporeal things is of the same kind.³ And finally, the third position is labeled as the position of Averroes, with whom Aquinas will side on this issue, claiming that there is no matter in spiritual entities, and that the matter of customary sublunar objects and of the heavenly bodies are distinct in kind.⁴

When Auriol addresses the same question of angelic composition, he argues that angels are composed of matter and form. This may lead one to think that he endorsed what Aquinas labeled as the first position, that of Avicenna. Nevertheless, a few distinctions later Auriol also argues at length that celestial bodies, such as stars and planets, do not contain matter as a metaphysical constituent. This puts him at odds with other proponents of universal hylomorphism, and makes him a misfit with respect to Aquinas’s categorical scheme. Consequently, while Auriol’s views have been noticed before, their unusual combination led Pierre Duhem to conclude that Auriol’s endorsement of spiritual matter is “a purely verbal concession.”⁵ And while Antonio Petagine thinks that there *may* be a way for Auriol to consistently maintain that there is matter in spiritual creatures but not in heavenly bodies, he does not attempt to spell out this way or to reconstruct Auriol’s arguments in detail.⁶

In this paper I trace what led Auriol to endorse these seemingly implausible claims, attributing matter to certain spiritual beings and yet denying it of certain physical ones. I also examine the view that emerges from the combination of these two positions, and show that they, far from being irreconcilable, point to a particular conception of matter. According to this conception, matter is not to be treated as the physical stuff that makes something a body, nor as a mere substrate of natural change, but as a subject in pure potency that can take on multiple forms (either simultaneously or successively or both⁷).

I will start by examining Auriol’s stance on angelic matter. I will then turn to his treatment of celestial matter, engaging on the way in a minor interpretative disagreement with the existing literature on the topic, and finally point out some of the metaphysical implications of the emerging view.

ANGELIC MATTER

The question whether angels have matter as a metaphysical constituent troubled medieval thinkers due to the combination of some Aristotelian principles with some theological givens. On the one hand, they seem to be committed to the view that angels are intellectual,

2. Aquinas, *In Sent.* II.3.1.1: “in omni substantia creata est materia, et quia omnium est materia una.” Among Aquinas’s contemporaries, the position seems to have been endorsed by Bonaventure and, slightly later, by Peter John Olivi.

3. Among Aquinas’s contemporaries, Giles of Rome seems to endorse this position.

4. Aquinas, *In Sent.* II.3.1.1. Aquinas returns to treat the same issue for multiple times in his career, most extensively in his *De substantiis separatis* and in the first article of the disputed question *De spiritualibus creaturis*. The positions he introduces in these works, as well as Aquinas’s own stance on the question, do not change.

5. Pierre Duhem, *Le système du monde: histoire des doctrines cosmologiques de Platon à Copernic* (Paris: A. Hermann, 1913), 6:414.

6. Antonio Petagine, *Il fondamento positivo del mondo: Indagini francescane sulla materia all’inizio del XIV secolo (1330–1330 ca.)* (Rome: Aracne editrice, 2019), especially chs. 7.1 and 9.3.1.

7. As is well known, Auriol is a pluralist with regard to substantial forms, i.e., he maintains that a single substance can have multiple substantial forms at the same time (cf., e.g., William O Duga, “The Souls after Vienne: Franciscan Theologians’ Views on the Plurality of Forms and the Plurality of Souls, ca. 1315–1330,” in *Psychology and the Other Disciplines: A Case of Cross-Disciplinary Interaction (1250–1750)*, ed. Paul JJM Bakker, Sander W de Boer, and Cees Leijenhorst (Leiden: Brill, 2012), 171–274). The current issue, however, does not ride on this question.

spiritual creatures, consequently devoid of all bodiliness and hence, arguably, matter. On the other hand, they also seem to be committed to maintaining that angels are capable of undergoing certain kinds of changes (the usual examples are the acquisition of new knowledge, and perhaps a change of will in the case of the fallen angels). Since change, in the Aristotelian framework, presupposes some kind of potential principle, this was taken to imply that there is some potential principle in angels, which, if one were to equate potentiality with matter, would imply that there is also some material constituent in them. Most medieval thinkers, one way or another, subscribed to both of these considerations, and were consequently often preoccupied with questions of angelic mutability and materiality starting at least from the earliest reception of Aristotle.⁸

Some thinkers, most famously Albert the Great and Thomas Aquinas, maintained that the second one of the above considerations is mistaken. As Albert already complains, it is a misunderstanding of Aristotle to think that potentiality requires a material component.⁹ And, as Aquinas argues, the composition of being and essence is all that is required in angels, and in fact positing matter is incompatible with both intellectuality and incorporeity.¹⁰

Other thinkers, however, seem to believe that positing a possibility of change in angels (at least in some broad sense, more on this below) amounts to positing a material component in them. The earlier debate on spiritual matter is relatively well known, and we do not need to review its details here.¹¹ As an example, we can note that Richard Rufus of Cornwall, one of the first western commentators on Aristotle's *Metaphysics*, already spends five whole folios in his Oxford *Sentences* commentary on the question, considering Augustine's, Hugh of St.-Victor's, and other theologians' arguments in detail, only to conclude that "we cannot posit as more probable that angels have matter than that they do not."¹² What is clear in his treatment is that he recognizes that mutability (together with the problem of individuation) provides a strong motivation for positing matter in angels. Alexander of Hales, Peter John Olivi, and perhaps most famously Bonaventure are well known proponents of positing what we call 'spiritual matter', that is, matter in spiritual substances. A work that has sometimes been attributed to the early Scotus also

8. For a helpful recent overview of some of these issues, with plenty of further bibliography, see John F Wippel, "Metaphysical Composition of Angels in Bonaventure, Aquinas, and Godfrey of Fontaines," in *A Companion to Angels in Medieval Philosophy*, ed. Tobias Hoffmann (Leiden: Brill, 2012), 45–78; and Brendan Case, "Seraphicus Supra Angelicum: Universal Hylomorphism and Angelic Mutability," *Franciscan Studies* 78 (2020): 19–50. Some or perhaps most of these considerations, as well as some or perhaps most of what Auriol will say about angels would apply to the human soul as well – either in its separated post-mortem state, or in its conjoined state, or in both. The soul, however, being a substantial form of the corporeal human being, raises a host of further questions, the treatments of which would exceed the boundaries of this paper. Thus, in what follows, I will focus solely on angels, and leave aside the question of how the considerations apply to the human soul. For some of the emerging issues, see, e.g., Duba, "The Souls after Vienne."

9. *In Sent.* II.1.4; see James A Weisheipl, "Albertus Magnus and Universal Hylomorphism: Avicbron," *Southwestern Journal of Philosophy* 10, no. 3 (1979): 239–260 for some analysis.

10. *In Sent.* II.3.1.1; see also note 4 above.

11. It was already examined in D Odon Lottin, "La composition hylémorphique des substances spirituelles: Les débuts de la controverse," *Revue néo-scholastique de philosophie*, 2e serie 34 (1932): 21–41. For some more recent treatments, see David Keck, *Angels and Angelology in the Middle Ages* (Oxford: Oxford University Press, 1998); R James Long, "Of Angels and Pinheads: The Contributions of the Early Oxford Masters to the Doctrine of Spiritual Matter," *Franciscan Studies* 56 (1998): 239–254; and Lydia Schumacher, "The *De Anima* Tradition in Early Franciscan Thought: A Case Study in Avicenna's Reception," *Mediaevalia: Textos e estudos* 38 (2019): 97–115.

12. Rufus, *Sententiae Oxoniensis* II.3.C: "video quod non possit probabilius poni angelum habere materiam quam non habere" (Oxford, Balliol 62, fol. 110ra, transcribed by Jennifer Ottman). We should note that Long interprets Rufus to endorse the doctrine of spiritual matter (see Long, "Of Angels and Pinheads," especially 251).

agrees with the view, with similar arguments;¹³ the author of that work, apart from the considerations already mentioned, also argues that “since an angel is a species of [the genus of] substance, it is composed of [matter and form],” because matter and form are the most general principles that apply to every changeable thing in that genus. Similar considerations are repeated again in Gonsalvo of Spain’s treatment.¹⁴ While the details of the views may differ, all these thinkers seem to maintain that hylomorphic composition is an essential concomitant of being a creature – something that applies to the soul, angels, celestial bodies, and in general, every created being. As will become clear below, with this, Auriol disagrees. But he does not disagree with positing a material principle in angels.

Auriol treats the question of angelic matter both in an early treatise¹⁵ and in his later commentary on the *Sentences*.¹⁶ In the earlier treatise he notes that “while some think that there is a material part in such incorporeal substances, there does not seem to be a necessity to posit this.”¹⁷ But by the time he writes his *Sentences* commentary, he seems to have changed his mind. Here, after giving some arguments indicating that angels do not have any type of matter, he remarks:

I say that I do not see heavier authority for either side of this question, also because the philosophers and saints who most diligently inquired about [the angels’] nature explicitly meant that they are composed of matter and form. And so this is what I hold with them. . . .¹⁸

He arrives at this conclusion in two steps. In the first, more extensive one, he discusses whether spiritual substances¹⁹ contain pure potentiality as a metaphysical constituent; then, having given an affirmative answer, he goes on, without too much further ado, to equate this pure potentiality with matter.

13. The discussion can be found in the *Quaestiones super II-III De Anima*, q. 15 (*Oph* 5:134). See Michael B Sullivan, “The Debate over Spiritual Matter in the Late Thirteenth Century: Gonsalvus Hispanus and the Franciscan Tradition from Bonaventure to Scotus” (PhD diss., The Catholic University of America, 2010), who takes the *Quaestiones De Anima* to be authentic. We do not need to take a stance on the question of authenticity here. I examine the views of the *Quaestiones*, Gonsalvo of Spain, and Peter of Trabibus in more detail in “What’s the Matter with Angels? Angelic Materiality and the Possible Intellect in Some Early Fourteenth-Century Franciscans,” *Revista Española de Filosofía Medieval*, forthcoming.

14. Cf. *Quaestiones disputatae*, q. 11 (Gonsalvus of Spain, *Quaestiones disputatae et de quodlibet*, ed. P Leo Amorós (Florence: Collegium S Bonaventurae, 1935)); also Sullivan, “[The Debate over Spiritual Matter](#),” 288 ff.

15. See the *De principiis naturae*, c. 3. For some general description of this treatise with regard to Auriol’s view on matter, as well as its dating and connection to the *Sentences* commentary, see Duba, “[The Legacy of the Bologna studium](#).”

16. The discussion occurs in the usual place, that is, in distinction 3 of his *Sentences* commentary, book two; Cf. Peter Auriol, *Commentariorum [sic] in secundum librum Sententiarum* (Rome: Zannetti, 1605), 56–60. The 1605 Rome edition is notoriously unreliable (more about that later), so I have silently corrected it against Padova Bib. Ant. 161 and occasionally against the other manuscripts; for their list, see note 77 below.

17. *De principiis naturae*, c. 3: “Circa conclusionem secundam, licet aliqui ponant in talibus substantiis incorporalibus, materiam partem, non tamen necessitas ponendi aliqua apparet” (BAV Vat. Lat. 3063, fol. 18vb, transcribed by Martin Bauer (unpublished, last corrections in 1990).)

18. *In Sent.* II.3.1.3: “Dico autem, quod . . . non video magnum robur in aliqua parte istius quaestionis, tum quia Philosophi et Sancti qui diligentissime investigaverunt de naturis illorum, expresse intellexerunt quod essent compositae ex materia et forma. Ideo teneo cum eis. . .” (59a).

19. ‘Spiritual substances’ stand for non-bodily beings that are capable of understanding, including angels but also leaving open the possibility of other such creatures (demons, perhaps the separated soul, etc.). The question does not arise for God, who is taken to be entirely simple. Auriol uses the terms *angelus*, *substantia separata*, and *substantia spiritualis* interchangeably, and for the sake of simplicity, I will just call these spiritual creatures ‘angels’ in what follows.

In the first step, Auriol dismisses the Boethian (and Thomistic) solution of accounting for angelic composition in terms of *quod est* and *quo est*, and, consequently, points out that if there were no composition in angels of potentiality and actuality, they would be simple in the way God is simple – a theologically unacceptable option.²⁰ More interestingly, he thinks that there are philosophical reasons for maintaining the same. The most important of these is that an angel is capable of understanding and willing things different from itself, and, according to Auriol, one could not account for this except by positing a purely potential component²¹: “in the genus of intellectual substances, there is something that can receive all actual entities in the genus of intelligibles. But that which receives in this way cannot be in act, whence it is in pure potency without any actuality.”²²

Take the case of understanding. Gabriel is capable of understanding, or mentally entertaining, possibly any created thing, which, in the Aristotelian framework, means that he is capable of receiving the intelligible forms of any created thing. As Auriol argues, this is only possible if a part of his intellect is pure potency at least in a similar way to that in which prime matter is pure potency.²³

Auriol’s argument here relies on the principle, known from Averroes, that “the recipient must be devoid of the nature of the received.”²⁴ As the usual examples point out, the eye must be devoid of colors in order to *see* colors; touch can sense the temperatures different from it but not its own temperature. And in general, as medieval authors would claim, including Auriol, “just as it is impossible for something to give what it does not have, it is in the same way impossible to receive a form that it has already.”²⁵ Now, since Gabriel’s intellect is able to receive all intelligible forms (whether simultaneously or only successively is not directly relevant to Auriol’s argument at present), it must be devoid of all these forms. But then, since all intelligible forms are in some way actual (actuality being the primary characteristic of forms in general), the receiving intellect must be devoid of actuality altogether. In other words, the potential intellect of angels, lacking any actuality, must be pure potency. Auriol thinks that the same conclusion is reached by paying attention to the fact that angels can be subject to passions and various acts of the will: these also presuppose something that can serve as a subject. Since the arguments are completely parallel, we do not need to repeat them here.

As Auriol concludes this discussion,

In these [separate] intellectual substances, and also in the soul, there are two true substances, one of which is in merely potential, and the other merely act, from which they are composed intrinsically. And one [of these] is called the possible intellect, by which such a substance can undergo passion, that is, can receive an understanding of things other than itself, and consequently,

20. Cf. *In Sent.* II.3.1.2: “[S]ola prima forma, quae est Deus, libera est ab illa natura potenciali; omnis autem alia substantia, sive intelligentia movens orbem, sive anima intellectiva, participat de natura illa potenciali, et omnes sunt compositae praeter primam” (58a).

21. Auriol, of course, does think that God can also understand and will other things. But as he explains here, that is a special case, since God understands everything by God’s creative divine essence.

22. *In Sent.* II.3.1.1: “in genere substantiarum intellectualium est dare aliquid quod potest recipere omnem entitatem actualem in genere intelligibilium. Illud autem sic recipiens non est ad actum trahibile, quare illud est ens in pura potentia absque omni actualitate” (56b).

23. Cf. Auriol, *In Sent.* II.3.1.1 (56b), as quoted in the previous footnote.

24. Averroes, *In De anima* III.4; quoted from *Auct. Arist. De an.*, 212: “Omne recipiens debet esse denudatum a natura recepti” (Jacqueline Hamesse, ed., *Les auctoritates Aristotelis: Un florilège médiéval* (Louvain: Publications Universitaires, 1974), 191).

25. *In Sent.* II.3.1.1: “sicut est impossibile alicui dare formam quam non habet, sic est impossibile recipere formam quam habet” (56b).

by which it formally understands; the other is its understanding by which it is in act.²⁶

Having established that angels are composites of pure potentiality and actuality, Auriol concludes that Gabriel is composite at least in a similar way to how Sophie the cat is composite: there is something in him that is potential (*quasi-matter*, we may say), the possible intellect; and there is something that is actual (*quasi-form*), the agent intellect and the act of understanding: “[the angel] is composed of these as from a formal and material [principle].”²⁷

Now, one may say that having established that angels have a potential component is far from establishing that they have a material one.²⁸ Auriol disagrees. Indeed, from the very beginning of the first article he seems to treat ‘matter’ convertibly with ‘potentiality,’²⁹ without giving an explicit argument for this convertible usage. And when he goes on, in the third article, to address the question “whether the separate [spiritual] substances are composed of matter and form”³⁰ directly, after introducing the affirmative answer quoted above,³¹ he is content to say merely that “to show this point, I do not propose any other argument, except those that had been proposed in the previous question, that is, in the first question [i.e., first article, ‘whether they are composed of potency and act’], nor any other authority except those that had been introduced in the second question.”³² And, as he notes explicitly at the end of the first article, “with respect to being ‘potency’, there is no difference between prime matter and the possible intellect.”³³

Nonetheless, while Auriol thinks that the possible intellect of an angel is analogous to the prime matter of a cat, since both of them pick out the purely potential component in a composite substance, he also thinks that there are important differences between Gabriel’s and Sophie’s potential component or prime matter. To understand these differences, we need to keep in mind that we cannot draw them based on any positive characteristics – since neither corporeal prime matter nor the possible intellect has any. Auriol’s solution to the problem of distinguishing between types of prime matter relies on his commitment

26. Auriol, *In Sent.* II.3.1.1: “in istis substantiis intellectualibus et in anima sunt duae verae substantiae, quarum una est mere potentialis et alia est mere actus, ex quibus intrinsece componuntur. Et una dicitur intellectus possibilis, quo talis substantia patitur, id est, recipit intellectionem aliorum a se, et per consequens, quo formaliter intelligit; alia vero est intellectio sui per quam est in actu” (59a). Auriol also invokes Augustine’s authority, for whose less than entirely unambiguous treatment, see his *De genesi at litteram*, I.1 (Aurelius Augustinus, *The Literal Meaning of Genesis 1: Books 1–6*, ed. and trans. John Hammond Taylor (New York, NY: Newman Press, 1982), 19–20).

27. *In Sent.* II.3.1.1.: “in genere substantiarum intelligibilium est aliquid quod est pura potentia, et hoc est intellectus possibilis, et alia quae est actus quae trahit illam ad actum, quae est intentio intellecta, tertium vero quod componitur ex istis tamquam ex formali et materiali” (56a).

28. As was mentioned above, Albert and Aquinas would level such a criticism when arguing against spiritual matter; but we should note that the precise ontological status of the passive intellect is not entirely clear in Aquinas. Cf. Joseph Li Vecchi, “Aquinas on the Matter of Mind,” *Angelicum* 87, no. 2 (2010): 371–382; and Therese Cory, *Aquinas’s Metaphysical Mind: Knowing as Being*, ch. 6 (manuscript).

29. The title of the first article is “whether... [in angels] it is necessary to posit a nature that is purely possible in that genus and is a quasi-material principle [utrum in genere substantiarum intellectualium sit necesse ponere naturam quae sit purum possibile in illo genere et principium quasi materiale]” (56a).

30. II.3.1.3: “Utrum substantiae separatae sint compositae ex materia et forma” (58b).

31. Cf. note 18.

32. “Ad probandum autem illam conclusionem, non adduco alias rationes, nisi quas adduxi in quaestione praecedenti, id est [d.] 3, 1a quaestione; nec alias auctoritates induco, nisi quae inductae sunt in secundam” (59a).

33. *In Sent.* II.3.1.1.: “ad respectum possibilitatis, nulla est differentia inter materiam primam et intellectum possibilem” (58a).

to the thesis that matter is, at least in some way, identical to its potency,³⁴ and on his further claim that potencies can be distinguished based on the act they are contrasted with. In other words, we can start to grasp the difference between the prime matter Sophie is composed of and the one that Gabriel is composed of by considering the kind of potency they have (or rather, the kind of potency they *are*), and the kind of actuality this potency is contrasted with. Again, while we have, in some way, *pure* potency in both cases, they are not potencies with respect to the same kinds of forms. On the one hand, the matter of Sophie is in potency to all particular substantial forms (it has the form of Sophie right now, but it can also receive the particular form of a cat-corpse when Sophie dies, then perhaps the form of a particular flower after Sophie’s decomposition, and so on). What Sophie’s prime matter cannot take on, however, even by divine omnipotence, are universal forms: it cannot receive a form such as the form of animality. On the other hand, the potential intellect of Gabriel is in potency to receive all intelligible (and hence universal) forms, such as the form of felinity or the form of animality; but it is not in potency to receive the substantial form of a particular cat. Hence, while both the prime matter of Sophie and the potential intellect of Gabriel are pure potency, they fall into different kinds, which can be characterized by the different kinds of actuality they are contrasted with: in the former case, particular sensible forms, in the latter case, universal intelligible forms.³⁵

Taking this first difference between the two pure potencies as a starting point, we can come to what Auriol considers the most basic difference between corporeal and spiritual matter. On the one hand, corporeal prime matter is necessarily determined to three dimensions; in other words, it necessarily possesses the accident of quantity.³⁶ Consequently, all forms that are received by this corporeal matter are quantified: we can say that the substantial form of Sophie occupies the same place, and hence has the same extension, as her body.³⁷ On the other hand, the possible intellect is altogether separate from the three dimensions, and hence can receive forms that are not quantified at all. Consequently, while Gabriel possesses matter, it is not the kind of matter that is extended, and so Gabriel himself can remain extensionless.³⁸

A further difference between spiritual and corporeal matter concerns the kind of change they underlie. While it is true to say that both are underlying subjects of different forms, whether simultaneously or successively (as was seen above, this was one of the main

34. Cf. the rather convoluted discussion in *In Sent.* II.12, and for a brief analysis, Friedman, “[Is Matter the Same as Its Potency?](#),” especially 132–134.

35. *In Sent.* II.3.1.1: “Prima [differentia] est quod sicut totum genus sensibilium differt a toto genere intelligibilium, sic haec materia ab illa, quia materia est quoddam ens trahibile ad totum genus sensibilium, non intelligibilium; intellectus vero potentialis econtra ad totum genus intelligibilium, non sensibilium” (57b).

36. The question whether matter is necessarily quantified and hence extended, was a rather contentious issue in our period; for some literature, see Pasnau, *Metaphysical Themes*, esp. ch. 4.

37. This is true even in the human case, perhaps because of some holenmeric way of existing; Cf. Pasnau, ch. 16. In what way substantial forms are extended became an important debate later in the fourteenth century; see, e.g., Roberto Zambiasi, “Innovative Conceptions of Substantial Change in Early 14th-Century Discussions of *Minima Naturalia*,” *American Catholic Philosophical Quarterly*, forthcoming.

38. *In Sent.* II.3.1.1: “Secunda differentia est, quia materia prima ex toto suo genere determinat sibi ut propriam passionem trinam dimensionem, et omne receptum in ea necessario est quantum; intellectus autem possibilis separatus est a trina dimensione, ita quod innotescit nobis differentia materiae et intellectus per proprias passiones” (57b). As is well known, while the question of how many angels can dance on the point of a needle is an early modern invention, it was a genuine discussion whether multiple extensionless entities can occupy the same place, and more importantly, whether it is meaningful to talk about ‘place’ at all in the case of extensionless entities. For an overview of the problem of angelic location, see Part II of Isabel Iribarren and Martin Lenz, eds., *Angels in Medieval Philosophical Inquiry: Their Function and Significance* (Aldershot: Ashgate, 2008), 61–127. For some discussion of pinheads, see Long, “[Of Angels and Pinheads](#).”

reasons why Auriol introduced spiritual matter), Auriol thinks that angelic matter does not underlie transmutation, properly speaking.³⁹ Auriol does not spell out exactly what he means here, but we can conjecture that he may have in mind the following difference: when the prime matter of Sophie acquires a new (particular, sensible, three-dimensional) form, such as the form of a corpse, Sophie will cease to exist; but when the possible intellect of Gabriel acquires a new (universal, intelligible, extensionless) form, no such transmutation occurs. In other words, while corporeal matter is an underlying substrate of substantial change, or transmutation, spiritual matter, although its essence consists of being able to receive different forms, is not such an underlying substrate.

Nevertheless, despite these differences, Auriol thinks it is true to say that Gabriel is a material entity, and that in some way, there is something common in Gabriel's spiritual and Sophie's corporeal matter. Spiritual matter and corporeal matter are identical in that they are pure potencies: taking 'matter' in this sense just means the potentiality of taking on different forms, and in that, spiritual and corporeal matter agree. The differences between them only emerge as we consider them as substrates, or, what is the same, we consider *what kind of forms* they can take on, and how one of these forms can replace another in inhering in them. Since corporeal matter is always dimensioned, while spiritual matter is not, the above-mentioned differences arise.⁴⁰

As has been shown above, Auriol thinks that even though it is actuality alone that makes a difference, it is nevertheless meaningful to distinguish between pure potentialities. With this, he rejects the strategy, endorsed for instance by Gonteri Brito or Nicholas of Trivet, both roughly contemporaries, of giving up the pure potentiality of prime matter and considering it instead as an essence existing in some actuality – which, at least in Gonteri's and Nicholas's case, was motivated precisely by the consideration that unless prime matter had a positive essence, there could be no different types of it.⁴¹ Instead, on this question, Auriol is closer to Aquinas's and Hervaeus's position. While, as is well known, they reject spiritual matter, they do think that the matter of celestial bodies is different from the matter of earthly ones, and treat this difference as requiring no further explanation in terms of difference-making actualities.⁴² Auriol similarly thinks that we can distinguish pure potentialities by the kind of act that they are contrasted with – in this case, particular and universal forms – and no further explanation is necessary.

In light of all this, we may say that Duhem was partly right in that Auriol did not think that angels were material entities in the same way as cats are material entities – and in

39. *In Sent.* II.3.1.1: “Tertia differentia est ex natura transmutationis, quia materia prima est illud quo aliquid recipitur cum transmutatione et cum abiectioe alterius, et hoc accidit sibi ratione trinae dimensionis, quae necessario trahitur ad determinatam figuram et exigentiam formae receptae; sed intellectus possibilis est illud quo aliquid recipitur sine transmutatione et abiectioe alicuius” (57b).

40. *In Sent.* II.3.1.1: “Quantum igitur ad primum, scilicet ad respectum possibilitatis, nulla est differentia inter materiam primam et intellectum possibilem. Accipiendo vero substratum . . . tunc habet differentiam unam ab alio” (58a).

41. Cf. Aufredo Gonteri Brito, *In Sent.* II.12.3.2 (Wrocław, Univ. 195 (I F 184), fol. 501va–504va); Nicholas Trivet, *Quodl.* IV.9 (Basel UB IV B4, fol. 42rb–vb). As Gonteri puts it succinctly, “I say also that the argument [for the opposite] assumes something false, because the matter of the heavens and the matter of the elements are not pure potencies, but rather have being” (504ra).

42. As Aquinas notes, the diverse matters are distinguished by analogy to the acts that are contrasted with. Aquinas's example is sight and hearing: the potency to see something and the potency to hear are different potencies because they are actualised by different objects. Cf. *In Sent.* II.2.1.1, ad 3; and *Summa Theologiae* I.66.2, ad 4. For Hervaeus, see *In Sent.* II.12.3. (Hervaeus Natalis, *In quatuor libros Sententiarum commentaria* (Paris: Dionysius Moreau, 1647)); *Quodlibeta* III.10; and the short treatise *De materia caeli* dedicated specifically to the topic of heavenly matter (for the latter two, see Hervaeus Natalis, *Subtilissima Hervei Natalis Britonis theologi acutissimi quolibeta undecim cum octo ipsius profundissimis tractatibus* (Venice: Antonius Zimara, 1513)).

this sense, Auriol’s insistence on spiritual matter may indeed be regarded as a “verbal concession.” It seems, however, that this is only part of the story, since Auriol believes that there is some robust sense of ‘being material’ that applies equally to angels and to cats: namely, to have a potential component. The view of angelic materiality may be surprising if we take ‘matter’ to imply some physical, extended stuff; but for Auriol, the term does not have these implications: there can be material entities that are neither corporeal nor extended. That being corporeal is not equivalent to being material can be also seen from Auriol’s consideration of celestial matter, to which we turn now.

CELESTIAL MATTER

Having argued that angels are composed of matter and form, Auriol makes the perhaps surprising claim that celestial bodies are not. To understand this, we need to recall that the Aristotelian cosmos is divided into two parts. Supported by most of the then available empirical data,⁴³ Aristotle thought that the nature of the heavenly region, which is above the sphere of the moon, differs from the nature of the earthly region, the one below the moon, in several important respects. While things on earth come to be and cease to exist naturally, things in the heavens do not, except – as medieval thinkers thought – by creation and annihilation. Moreover, while things on earth undergo all kinds of accidental changes, things in the heavens do not: they only change with respect to place. Finally, while bodies on earth tend to move, by their nature, either towards or away from the center of the universe with a finite rectilinear motion determined by their elemental constitution, the heavenly bodies move with uniform, eternal, circular motion around the center.⁴⁴ Given these differences, the question arises whether they derive from deeper ones, that is, differences in metaphysical constitution. While things in the sublunar region are composed of matter and form, medieval thinkers often read Aristotle, as well as Averroes’s commentary on the *De caelo* and his treatise *De substantia orbis*⁴⁵ as maintaining either that the heavenly bodies do not have matter as a metaphysical constituent at all, or at least that their matter is different in kind from the matter of earthly bodies.

Aristotle’s account presented further problems for medieval thinkers, since it was often conceived to be at least *prima facie* in tension with what Augustine proposed on the same issue when interpreting the creation story of *Genesis*.⁴⁶ While his *Litteral commentary* does not seem to commit him to a strong position in favor of any particular view,⁴⁷ he came to be interpreted based on this work as maintaining that when *Genesis* says “In the beginning, God created heaven and earth,”⁴⁸ ‘heaven’ should be taken to mean all spiritual creation, while ‘earth’ the (as yet formless) matter of all corporeal things. This then seems to imply indeed that the original source of corporeal things, whether celestial or terrestrial, is one; in other words, that both celestial and terrestrial bodies share a common matter.

43. A good overview of this data can be found in Edward Grant, *Planets, Stars, and Orbs: The Medieval Cosmos, 1200–1687* (Cambridge: Cambridge University Press, 1994), ch. 10, esp. 203–205. See also David C Lindberg, *The Beginnings of Western Science* (Chicago: The University of Chicago Press, 2007), 52–60 for a helpful general introduction to Aristotelian cosmology.

44. For Aristotle, see, e.g., *Metaphysics* VIII, 1044b6–8 and *De caelo* I, 269a–270b.

45. For Averroes, see, e.g., *De substantia orbis* I.2. It should be noted, however, that Averroes’s overall stance on the question is open to multiple interpretations – even if one does not go so far as to claim, with Grant, that they consists of ultimately “irreconcilable statements” (Edward Grant, “Celestial Matter: A Medieval and Galilean Cosmological Problem,” *Journal of Medieval and Renaissance Studies* 13 (1983): 157–186, at 162).

46. Cf. Augustine, *De Genesi ad litteram* I.1; PL 34:245, tr. in Augustinus, *The Literal Meaning of Genesis 1: Books 1–6*, 19–20.

47. The *De Genesi ad litteram* I.1, where he lists no less than five possible interpretations of the first sentence of *Genesis*.

48. *Gen.* 1,1.

There were various ways medieval thinkers dealt with this problem, and we do not need to delve into their details here.⁴⁹ Auriol endorses what we can label as the *Matterless Heavens View*, according to which the heavens and the heavenly bodies⁵⁰ do not have matter as a metaphysical constituent, while spending an entire question to show (perhaps worried by Scotus’s suggestion of the opposite⁵¹) that the view is not contradicted by the sayings of the Church Fathers, nor by Augustine’s account. More specifically, Auriol argues that “the heavens [are] not composite, namely from matter and form, nor are they forms or matter.”⁵² This view, while it cannot by any means be regarded as the most usual position on the issue, was endorsed by such diverse thinkers as the early Durand of St.-Pourçain, John of Jandun, and Francis of Meyronnes.⁵³

Auriol argues for all three of these conjuncts – that is, that the heavens are neither composite, nor form, nor matter – although unsurprisingly, he spends most of his argumentative efforts on the first one. It will be enough to call attention to a few of his arguments here.

The first one is what can be regarded as the most usual point made in favor of the *Matterless Heavens View*, and what tends to appear as the perhaps most important objection against the other accounts: namely, that the heavenly bodies are ungenerable and incorruptible, and material beings cannot be. As Auriol puts it summarily, “If a heavenly body were composite of matter and form, it would consequently be generable and corruptible.”⁵⁴ Auriol elaborates on this point by arguing that positing a composite heavens leads to insurmountable difficulties, no matter whether or not one assumes it to have the same matter as the earthly bodies. His arguments rely on the Aristotelian assumption that corruption amounts to matter taking on a different substantial form than it had before. But then wherever there is matter, there is potency to take on a different form – and then there is also the possibility of change, an inadmissible claim in the case of heavenly bodies.

Auriol is aware that some authors attempted to preserve the incorruptibility of material heavenly bodies by endorsing what we can call the *Diverse Matter View*, that is, the thesis that the matter of the heavenly bodies is of a different kind than the matter below the

49. An overview of the available positions, albeit very selective with regard to the later medieval period, can be found in Grant, *Planets, Stars, and Orbs* and also in Grant, “Celestial Matter.” The overview is selective since Grant only considers sources with early printed editions, and mostly commentaries on Aristotle’s *De caelo*. Thinkers, however, similarly to Auriol, often discussed the issue in the second book of their commentary on the *Sentences*, either in distinction 12 or in distinction 14. For the earlier part of the debate, see also Silvia Donati, “La dottrina di Egidio Romano sulla materia dei corpi celesti: Discussioni sulla natura dei corpi celesti alla fine del tredicesimo secolo,” *Medioevo* 12 (1986): 229–280.

50. A note about terminology: in the discussion in Auriol and others, the term used is ‘caelum’. This can refer to the heavens as such (encompassing celestial orbs as well as celestial bodies), or to the heavenly bodies themselves. Indeed, Auriol himself often goes back and forth between *caelum* and *corpora caelestia*. I will follow him in this, and will be referring to the heavens and the heavenly bodies somewhat indiscriminately.

51. Scotus insists, in all versions of his *Sentences* commentary, that the philosophers’ and the theologians’ views seem ultimately irreconcilable, or that “this question is to be answered differently according to the sayings of the Philosopher and the Commentator, and according to theology” (Scotus, *Lectura* IV.14 (Vaticana 19:126)). ??.

52. *In Sent.* II.14.1.1: “Caelum [est] non compositum, scilicet ex materia et forma, nec forma, nec materia” (188b).

53. They all treat the question in distinctions 12 and 14 of their commentaries on the second book of the *Sentences*.

54. Auriol, *In Sent.* II.14.1.1: “Si corpus caeleste sit compositum ex materia et forma, consequenter sit generabile et corruptibile” (186b).

lunar sphere.⁵⁵ Since heavenly matter, in this case, would not be in potency to any other kind of terrestrial form, there would seem to be no risk of Venus ceasing to exist by, say, turning into a corruptible terrestrial body.

Auriol thinks, however, that this is not sufficient. First, he notes that it is not clear how one would draw the distinction between these different kinds of matter, if we abstract from formal characteristics. Auriol does not refer back here to his earlier treatment of angelic matter, in which, as we have seen, he argues that the difference between angelic and corporeal matter can be drawn based on the kinds of forms or actualities they are in potency to. Thus, one may object that if he could draw that distinction between those two kinds of matter, so could the proponent of celestial matter draw it between the celestial and the terrestrial one. Since Auriol does not deal explicitly with this objection, we can only speculate about what his response may have been. He may think that the distinction between universal (intelligible) forms and particular (corporeal) forms is such that positing that one kind of matter is only in potency to one and not to the other, does not endanger the claim that matter is pure potency. Celestial and terrestrial forms, however, are both corporeal, and thus in some way belong to the same kind; positing a kind of matter that is in potency to one but not to the other would imply that matter is not purely potential. Be that as it may, the second, perhaps more important argument points out that the matter that underlies one celestial body would still be able to take on the form of another celestial body, and in that case the first body would be corruptible.⁵⁶

Having dealt with the *Diverse Matter View*, Auriol turns to the position that we have seen mentioned in Aquinas, who attributes it to Avicenna: that the matter of all things, celestial and terrestrial, is of the same kind. While Auriol thinks that the *Uniform Matter View* is at least more consistent in itself than the previous one, he also thinks it is equally unable to account for celestial incorruptibility. One may try, perhaps with Giles of Rome,⁵⁷ to say that Venus is incorruptible because there simply is no contrary form that its matter would be able to take on; or, as later perhaps proposed by Ockham,⁵⁸ to maintain that there is no created active power that would be able to reduce the inherent potency of celestial matter to act. Auriol thinks, however, that these attempts, even if successful for explaining why the heavenly bodies *happen to* be incorruptible, fail to account for how or why they are *intrinsically* such.⁵⁹ In other words, Auriol seems to think that if Aristotle is right about the incorruptibility of heavenly bodies, and that their nature is so

55. The view was famously endorsed by Aquinas (although for some of the intricacies of attributing it to him, cf., e.g., Steven Baldner, “Thomas Aquinas on Celestial Matter,” *The Thomist* 68 (2004): 431–467; for the traditional interpretation, as well as plenty of references, see Thomas Litt, *Les corps célestes dans l’univers de Saint Thomas d’Aquin*. (Louvain: Publications Universitaires, 1963)), but also by such diverse figures as the early Alexander of Alexandria, Aufredo Gonteri Brito, Hervaeus Natalis, and Nicholas Trivet. They all discuss the issue in the usual place (*In Sent.* II.12 and II.14).

56. This is a consideration that may have led Hervaeus Natalis, for instance, to endorse the view that there are perhaps as many kinds of matter as there are celestial bodies (see his *In Sent.* II.12.3; Hervaeus Natalis, *In quatuor libros Sententiarum commentaria*, esp. 239a). As Auriol insists, however, forming an argument that will be repeated later by Ockham and others, the same consideration seems to lead to the absurd conclusion that heavenly matter is infinitely many in kind, since the same argument can be applied to any two distinct integral parts of a single celestial body as well (190b; it already appears in the *De principiis naturae*, fol. 27vb). For Ockham, Cf. *Reportatio* II.18 (William Ockham, *Quaestiones in librum secundum Sententiarum (Reportatio)*, ed. Gedeon Gál and Rega Wood, Opera Theologica V (St. Bonaventure, NY: Franciscan Institute, 1981)), 398.

57. See especially *De materia caeli*, Aegidius Romanus, *De materia coeli contra Averroistas* (Padua, 1493).

58. *Reportatio* II.18; William Ockham, *In II Sent.*, esp. 399–404.

59. *In Sent.* II.14.1.2: “Harum viarum nulla satisfacit, nec salvat intrinsecam incorruptibilitatem quam oportet dare in caelo” (190b).

vastly different from the earthly ones, this cannot be merely a coincidence, explained by the lack of suitable natural agents; but rather, it requires an explanation that points to their intrinsic, metaphysical features. As Auriol claims, one such explanation is that they are not composite substances in the way in which a cat or a human being is a composite substance.

To understand Auriol's position better, it is worth to look at another one of his arguments against composite heavens. According to this argument,

We should not posit a multitude [of things] unless an evident and necessary argument shows that [the appearance] cannot be saved by fewer; for God and nature do nothing in vain. But there is no necessity in positing matter in the heavens.⁶⁰

The argument relies on the Principle of Parsimony, and points out that if we can save the phenomena without positing matter and form as metaphysical parts in the heavenly bodies, we should not posit them. The crucial question, of course, is whether we can indeed save the phenomena without positing matter; for it seems, at least *prima facie*, that motion, as well as the sensible accidents (such as shape, color, and so on), presuppose it. According to Auriol, however, they do not:

[C]orporeity does not imply that there is matter in the heavens; for corporeal being is given by form, not by matter. Nor does quantity imply it; for although indeterminate quantity is on account of matter, nevertheless, determinate quantity is on account of form (and in the heavens there is only determinate quantity). Third, nor does [any] sensible quality [imply it]. . . Every accident that is in the heavens, is an accident that follows on account of form, not on account of matter.⁶¹

To understand the core of Auriol's argument here, we need to recall that perhaps surprisingly, *being a body*, in the broadly Aristotelian framework, is not a material characteristic. Something is a body because it possesses a form – the form of corporeity, one of the most universal forms on the Porphyrian tree. Thus, for Auriol, there is nothing implausible in maintaining that something can be a body, possessing the form of corporeity, but at the same time not possessing matter as a metaphysical constituent (just as, as was seen in the previous section, there is nothing implausible in maintaining that something can possess matter without being a body). Celestial bodies are precisely bodies of this matterless kind.

Celestial bodies are not only bodies but bodies with sensible accidents and motion. This, however, poses no problems for Auriol. Once we have a corporeal entity, it can possess the accident of determinate quantity, and an extended body can possess whatever bodily accidents we want to ascribe to it, including color, shape, location, and consequently motion. With this, Auriol claims, one can explain all the observable phenomena without positing hylomorphic composition in celestial bodies.

Another one of Auriol's arguments against a material component in the heavenly bodies elaborates on one of these features he has just hinted at: that is, on the kind of dimensions or quantity that celestial bodies may have, even if extrinsically (more about that below). Briefly, Auriol thinks (and many agree) that regular, earthly bodies possess

60. *In Sent.* II.14.1.2: "Multitudo ponenda non est nisi ratio evidens et necessaria illud probet aliter per pauciora saluari non posse. Deus enim et natura nihil faciunt frustra. Sed materiam ponere in caelo nulla habet necessitas" (189a)

61. *In Sent.* II.14.1.2: "Materiam enim esse in caelo non concludit corporeitas; forma enim dat esse corporeum, non materia. Nec illam concludit quantitas, licet enim quantitas interminata sit ratione materiae, tamen quantitas terminata inest ratione formae (in caelo autem tantummodo est quantitas terminata). Tertia, non sensibilis qualitas. . . . Omne ergo accidentia quae sunt in caelo sunt accidentia quae consequuntur ratione formae, non quae insunt ratione materiae" (189a).

both indeterminate and determinate dimensions⁶²: Sophie has indeterminate dimensions as she can grow; while she also has determinate dimensions as she has a more or less cat-sized body. In general, indeterminate dimensions, as was briefly mentioned above in the context of spiritual matter that lacks them, are responsible for corporeal matter being extended *at all*; and, as was also mentioned, Auriol thinks they are therefore necessary attributes of corporeal matter. It is called ‘indeterminate,’ since, as Auriol illustrates, when the same chunk of matter takes on the form of water and then the form of air, its extension changes. Now, celestial bodies, according to the Aristotelian consensus, cannot change size or shape, which means that they do not have indeterminate dimensions at all. But then, since having corporeal matter necessarily implies having indeterminate dimensions, they cannot have corporeal matter either.⁶³

While accounting for the bodiliness of heavenly bodies by merely pointing to their form of corporeity may suggest that they are pure forms, Auriol’s second main tenet is to establish that they are not that either. As Auriol notes,

That nature which does not determine to itself its own perfect or ultimate perfections, nor its motion, nor its quantity or figure, nor anything such, but has these determinations from its conjunction with something else, is not a form. For it belongs to the nature of a form that it is in act, and that it determines matter . . . just as the soul of a lion makes it so that its organs be of such and such a quality and shape But the nature of heavens does not determine to itself its properties and ultimate perfections.⁶⁴

In other words, forms determine all their own perfections, qualities, and even their determinate quantity (perfections and qualities, after all, are formal characteristics, and, as was mentioned above, determinate quantity is the kind that is due to the substantial form). Heavenly bodies, however, do not and cannot determine all their perfections and qualities, and, according to Auriol, not even their determinate quantity or dimensions. The reason for the latter is that determinate quantity is not due to corporeal nature – which is the only kind of nature celestial bodies have, if we disregard their movers – but are due to the soul or perhaps to the substantial form in case of inanimate things. Once a particular substantial form is induced in corporeal prime matter, it determines what kind of extension this chunk of matter can take on without losing that particular substantial form; as Auriol illustrates, a cow cannot be made into the dimensions of a serpent, without also ceasing to be a cow,⁶⁵ or – as he continues the example – a serpent cannot be made into the shape of a rectangle, since its soul makes it essentially have a certain kind of size and shape. The heavenly bodies, however, receive their determinate dimensions extrinsically, by the

62. For an explanation of these notions, especially in the earlier debates, see Silvia Donati, “The Notion of *dimensiones indeterminatae* in the Commentary Tradition of the *Physics* in the Thirteenth Century,” in *The Dynamics of Aristotelian Natural Philosophy from Antiquity to the Seventeenth Century*, ed. Cees Leijenhorst, Christoph Lüthy, and Johannes MMH Thijssen (Leiden: Brill, 2002), 189–224. There was considerable debate about how to account for these two kinds of quantities. For Auriol’s position, see Petagine, *Il fondamento positivo*, 78–84. See also below.

63. *In Sent.* II.14.1.1 (187a–b).

64. *In Sent.* II.14.1.1: “Illa natura quae ex se non determinat sibi extremas sive postremas perfectiones suas, nec motum, nec quantitatem, nec figuram, nec aliud huiusmodi, sed determinationem ad talia habet ex coniunctione cum alio, illud non est forma. De natura enim formae est quod sit in actu, et determinet materiam . . . eo modo quo anima leonis facit exigitive quod membra eius sint talis quantitatis et figurae. . . Sed natura caeli sibi non determinat proprietates suas et perfectiones postremas: natura enim caeli, in quantum huiusmodi, non determinat sibi tantam quantitatem, corpus enim, in quantum corpus, non habet ex se quod sit tantum vel tantum, maius vel minus” (188a).

65. *In Sent.* II.14.1.1: “Unde anima quaelibet determinat figuram certam sui corporis, sine qua non potest esse: facias enim bovem longum, sicut serpentem, statim amittet esse bovis” (188b).

celestial mover, which is also what gives them their eternal, circular motion and their other perfections. Therefore, the heavenly bodies cannot be pure forms either, but require something that perfects them.

Having a mover joined to a celestial body in the manner of a perfecting form may suggest that instead of being pure forms, celestial bodies are more akin to pure matter, to which a substantial form is joined as a perfecting principle. While Auriol agrees that “[they are] more similar to matter than to form,”⁶⁶ nevertheless he takes up an argument against this third conjunct as well. Heavenly bodies are analogous to prime matter in some important ways. But in one key respect they differ: while prime matter receives its actuality and, in some sense, its being (*esse*) from the substantial form joined to it, celestial bodies do not so receive it since they are already actual.⁶⁷ Thus, the celestial movers are not joined to the celestial bodies as, say, souls are joined to human bodies, giving them their first actuality of life, but are completely external to them.⁶⁸

The heavenly bodies, therefore, are neither composite, nor pure form, nor pure matter. As Auriol himself concludes the discussion, “the heavens are not form, because form is not in potency to its perfections; nor is it matter, because matter is in potency to the first act.”⁶⁹

What *are* they then? Of their positive characteristics, Auriol says little. Indeed, Edward Grant already notes that “[b]y offering so little information, Aureoli could present the positive features of his conception of the heavens in but a few lines.”⁷⁰ Auriol’s silence, however, seems to be more than merely accidental, and seems to follow from his aforementioned view that celestial bodies and prime matter are similar in some important respects. Just as prime matter cannot exist *in re* without substantial form, celestial bodies similarly cannot exist without their movers. Just as prime matter receives all its characteristics from the forms, celestial bodies similarly receive all their characteristics, with the crucial exception of their first actuality, from their movers. This means that just as we cannot describe prime matter in positive terms, we cannot so describe celestial bodies either. As Auriol notes, “just as matter cannot be understood except by analogy to form, in the same way, we cannot understand the heavens to have determinate quantity, figure, motion, and other properties, except in their relation to the [moving] intelligence.”⁷¹ Again, if we want to describe these celestial bodies in themselves, as without their moving intelligence being joined to them, all Auriol thinks we can say is that they are “something as if in the middle [between matter and form], having the nature of a subject.”⁷²

We should note here briefly that in the scarce literature that exists on this particular topic, Auriol is sometimes described as maintaining that the heavens are “quantified subjects” and “conjoined essences”; and that this quantification is the first actuality that

66. *In Sent.* II.14.1.1: “magis debet censeri materia quam forma” (188b).

67. *In Sent.* II.14.1.1: “Ratio est quare non proprie dici potest materia, quia natura materiae est natura potentiae, est enim in potentia ad actum primum, et per hoc est in potentia ad extremas perfectiones quae sequuntur actum primum. Sed natura caeli non est in potentia ad actum primum” (188b).

68. Auriol devotes a whole separate article to this question in *In Sent.* II.14.2.2.

69. *In Sent.* II.14.1.1: “Non ergo est forma, quia forma non est in potentia ad suas postremas perfectiones; nec est materia, quia materia est ad potentia ad actum primum” (188b).

70. Grant, *Planets, Stars, and Orbs*, 249.

71. *In Sent.* II.14.1.1: “sicut materia non intelligitur nisi in analogia ad formam, sic non possumus intelligere caelum habere determinatam quantitatem, figuram, motum, et proprietates alias, nisi in respectu ad intelligentiam” (188b). See also earlier: “Tertia propositio quam Aristoteles et Commentator senserunt de caelo est quod ipsum non est intelligibile in suo ultimo actu et completo, sive in ultima sui perfectione, quae est operatio, nisi in ordine ad formam, quae est motor eius” (187b).

72. *In Sent.* II.14.1.1: “est quasi medium, ut sit ratio subiecti” (188b).

the heavenly bodies have.⁷³ As Edward Grant puts it, Auriol “judged the heaven to be an existent magnitude, a *quanta esse*”⁷⁴; Petagine, citing the same passage, describes Auriol’s celestial body as a “quantified entity.”⁷⁵

While the idea to characterize the heavenly region and its bodies as something inherently quantified would certainly be very interesting and novel, this is not Auriol’s position. The above interpretation, unfortunately, seems to rest on a misreading in the often unreliable early printed edition. The edition indeed uses the phrase *esse quanta* three times, as well as *esse coniuncta* once;⁷⁶ however, in the available manuscripts these same phrases read, without exception, as *essentia quinta*,⁷⁷ that is, ‘fifth essence,’ referring to Aristotle’s remarks on the aether.⁷⁸

Apart from the manuscript evidence, it seems that it would be difficult for Auriol to maintain that the heavenly bodies are inherently quantified or are magnitudes as such. What kind of magnitudes would they be? On the one hand, as was noted above, they do not have indeterminate quantity at all (precisely since they do not have matter). On the other hand, while they do have determinate quantity, Auriol explicitly notes multiple times that it is not something intrinsic to their natures but is given to them by an extrinsic source, the moving intelligence.⁷⁹ This means that for Auriol, quantity is not intrinsic to the heavenly bodies, even though they are in first actuality; which seems to imply that he cannot maintain that their first act is their quantity or that they are, in themselves, quantified subjects. All we can say about them, it seems, is that they are pure subjects in first act, and this first act is their (unquantified but in some way perhaps dimensioned⁸⁰) corporeity.

CONCLUSION

It has seemed to some interpreters, following perhaps Albert the Great’s and Aquinas’s evaluation of earlier thinkers,⁸¹ that positing matter in angels or in the soul, or not positing it in the heavenly bodies, rests on a confusion. While these views were supposedly supported by the claim that mutability implies matter, this, according to these interpreters, betrays a confusion about Aristotle’s concept of matter.⁸² As the above considerations try to show, however, this is not obviously the case.

73. Such characterizations are given in Grant, “Celestial Matter”; Grant, *Planets, Stars, and Orbs*, 247–248; and Petagine, *Il fondamento positivo*, esp. 295.

74. Grant, “Celestial Matter,” 182.

75. “[I]l cielo risulta un entità quantificata” (Petagine, *Il fondamento positivo*, 215).

76. All occur within two paragraphs, on pages 188bE–189aA.

77. The manuscripts checked are: Città del Vaticano, Biblioteca Apostolica, Ms. Borgiano 404 (fol. 52rb); Città del Vaticano, Biblioteca Apostolica, Ms. Vat. lat. 942 (fol. 55va); Düsseldorf, Landes- und Staatsbibliothek, Ms. B. 159 (fol. 105rb–105va); Firenze, Biblioteca nazionale centrale, Ms. conv. soppr. A.3.120 (fol. 69rb); Firenze, Biblioteca nazionale centrale, Ms. conv. soppr. B.6.121 (fol. 70va–b); Napoli, Biblioteca nazionale, Ms. VII.C.3 (fol. 161va); Padova, Biblioteca Antoniana, Ms. 161 scaff. ix (fol. 63ra); and Pelplin, Biblioteka Seminarium duchownego, Ms. 46/85 (fol. 183va). While the overall quality and reliability of the manuscripts differ, this cumulative evidence almost certainly suggests that the Rome edition is wrong in this case.

78. For a helpful but brief overview of this “fifth element,” see Lindberg, *The Beginnings of Western Science*, 53. For an analysis of Aristotle’s arguments for the existence of aether, see G E R Lloyd, *Aristotle: The Growth and Structure of His Thought* (Cambridge: Cambridge University Press, 1968), 134–139. Apparently then, for Auriol and arguably for Aristotle, aether was not a material element.

79. *In Sent.* II.14.1.1: “corpus caeli non determinat sibi figuram, in quantum talis natura corporalis est”; or “Figuram sibi propriam, sine qua impossibile est esse, puta rotunditatem, non habet caelum ex propria natura suae entitatis corporalis” (188b).

80. *In Sent.* II.14.1.1: “Subiectum habens dimensiones tantum in actu suo” (189a).

81. See Weisheipl, “Albertus Magnus” for some details.

82. Long, “Of Angels and Pinheads,” 253.

First, it is worth noting that for Aristotle, the problem did not arise with the same force; he could maintain that changeable things were material, while unchangeable ones were not. The intelligences, for Aristotle, were not composed of matter, but nor were they changeable: as there was no notion of ‘creation’ for him, the intelligences could be pure, unchanging and unchangeable forms, maintaining an eternal, uniform, circular motion.⁸³ Whatever the details of medieval angelology, it is clear, however, that angels cannot be such; they are creatures, which means that their existence is not in itself necessary, and unlike God, they are changeable entities. Consequently, to account for these characteristics that distinguish angels from the pure divine actuality, medieval thinkers had to posit *some* kind of composition in them. Some posited spiritual matter, endorsing therefore Aristotle’s conviction that matter is where change is, at least if we take ‘change’ in the broad sense of a substrate taking on different forms. And some posited some other kind of composition, saving thereby Aristotle’s conviction that the intelligences are pure forms.

Regarding heavenly bodies as immaterial “bare subjects” may seem somewhat surprising, and may also give the impression that with this new kind of entity, Auriol is stepping outside the standard Aristotelian hylomorphic scheme, where things are either hylomorphic compounds or, occasionally, subsisting forms. It should be kept in mind, however, that Auriol regards this view as altogether Aristotelian, deriving from the assumption, again, that ‘matter’ is primarily a substrate of change, and especially a substrate of generation and corruption. If this is the case, then in entities where no such change occurs, one should resist the urge to posit matter – notwithstanding their corporeity and whatever other accidents they may have.⁸⁴

What emerges from all this, in Auriol, is a conception of the universe consisting of metaphysically different kinds of entities. Some of them, like Sophie, consist of corporeal matter and form. Some, like Gabriel, consist of spiritual matter and form. And some, like Venus, are metaphysically simple, being a subject of the form of corporeity. Wherever there is matter, corporeal or spiritual, there is potency to take on different forms: particular forms in the former case, and universal forms in the latter case. This is why Gabriel has matter, while Venus does not. Moreover, wherever there is corporeal matter, there is also extension, but where there is spiritual one, there is none. This is why Sophie is extended and Gabriel is not. And, perhaps more interestingly, as seen above, the corporeal *versus* incorporeal division does not coincide with the material *versus* immaterial one; this is why Gabriel is a material and yet incorporeal and unextended entity, while Venus is an immaterial and yet corporeal and (at least extrinsically) extended one.

On a more general level, these *prima facie* surprising theses that Auriol endorses also illustrate that ‘matter’, whatever it is in the Aristotelian framework, should not be equated with structureless “physical stuff.” The theses may seem implausible precisely because when thinking about hylomorphic entities, it is easy to imagine them as some physical stuff being structured in a certain way by a substantial form. But this is somewhat misleading. As this case study illustrates, matter, for at least such an Aristotelian as Auriol, is not a physical entity but rather a metaphysical principle, accounting primarily for the mutability of certain entities, such as cats and angels, but, notoriously, not celestial bodies.

83. See, e.g., *Metaphysics* 12, 1073b–1074b. For some analysis, see Case, “*Seraphicus Supra Angelicum*,” and also Fernand Brunner, “Sur L’Hylémorphisme d’Ibn Gabirol,” *Les Études philosophiques*, NS 8, no. 1 (1953): 28–38.

84. This also answers a possible worry that given the above considerations about corporeity as a form sufficient to give bodiliness and in turn be the subject of quantity and extension in things, one may be led to deny matter even from ordinary objects. There seems to be no real danger of transferring Auriol’s considerations about celestial bodies to terrestrial ones, precisely because the latter are changeable things. (I am grateful to Erik Åkerlund for formulating this objection at the conference “Causal Powers in Medieval and Early Modern Philosophy” (Stockholm, May 19–21, 2022).)

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