# Heavenly Stuff: Peter Auriol on the Materiality of Angels and Celestial Bodies

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Take three entities of very different kinds: Sophie the cat, the planet Venus, and the archangel Gabriel. In imagining these entities, one might be tempted to picture Sophie and Venus as material things, and 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.

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 positions one could take on the issue. The first of these he attributes to Avicebron; this view, later also known as "universal hylomorphism," holds "that matter is created in all substances, and that there is one [kind of] matter in all things." The second position, which Aquinas attributes to Avicenna, maintains that there is no matter in spiritual beings (in other words, there is no "spiritual matter"), and that the

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<sup>&</sup>lt;sup>1</sup> There has been a growing 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 I. G. Taifakos (ed.) *The Origins of European Scholarship* (Stuttgart: Franz Steiner, 2005), 147–61, and "The Legacy of the Bologna *Studium* in Peter Auriol's Hylomorphism," in K. Emery et al. (eds.), *Philosophy and Theology in the* Studia *of the Religious Orders and at Papal and Royal Courts* (Turnhout: Brepols, 2012), 277–302; Russell L. Friedman, "Is Matter the Same as Its Potency? Some Fourteenth-Century Answers," *Vivarium* 59 (2021), 123–42; 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 website, peterauriol.net.

<sup>2</sup> Aquinas, *In Sent*. 2.3.1.1: "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.

matter of all corporeal things is of the same kind.<sup>3</sup> And finally, the third position, which Aquinas attributes to Averroes, with whom he will side on this issue, also claims that there is no matter in spiritual entities, but that the matter of sublunary things and that of the heavenly bodies are distinct in kind.<sup>4</sup>

When Auriol addresses the question of angelic composition, he argues that angels are composed of matter and form. This might lead one to think that he endorsed what Aquinas labeled the first position, that of Avicebron. However, a few distinctions later Auriol also argues at length that celestial bodies such as the 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 categorization. Consequently, while Auriol's views have been noticed before, their unusual combination has led Pierre Duhem to conclude that his endorsement of spiritual matter is "a purely verbal concession." 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.

In this paper I trace what led Auriol to endorse these seemingly implausible claims—attributing matter to certain spiritual beings and denying it of certain physical ones. I also

<sup>&</sup>lt;sup>3</sup> Among Aquinas's contemporaries, Giles of Rome seems to endorse this position; see *De materia caeli contra Averroistas*, q. 2 (Padua, 1493), fols. 4r–7v.

<sup>&</sup>lt;sup>4</sup> Aquinas, *In Sent.* 2.3.1.1. Aquinas returns to treat the same issue 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 his own stance on the question, do not change.

<sup>&</sup>lt;sup>5</sup> Pierre Duhem, *Le système du monde: Histoire des doctrines cosmologiques de Platon à Copernic*, vol. 6 (Paris: A. Hermann, 1913), 414.

<sup>&</sup>lt;sup>6</sup> Antonio Petagine, *Il fondamento positivo del mondo: Indagini francescane sulla materia all'inizio del XIV secolo (1330–1330 ca.)* (Rome: Aracne editrice, 2019), esp. sections 7.1 and 9.3.1.

examine the view that emerges from the combination of these two positions, and show that, far from being irreconcilable, they point to a particular conception of matter according to which matter is not to be treated as the physical stuff that makes something a body, nor as merely the substrate of natural change, but as a subject in pure potency that can take on multiple forms, either simultaneously or successively or both.<sup>7</sup>

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

# 1. Angelic Matter

The question whether angels have matter as a metaphysical constituent troubled medieval thinkers due to the combination of some Aristotelian principles with certain theological givens. On the one hand, they seem to be committed to the view that angels are purely intellectual and spiritual creatures, and as such devoid of all corporeality and hence, arguably, of matter. On the other hand, they also seem to be committed to the view that angels are capable of undergoing certain kinds of change; the usual examples are the acquisition of new knowledge, and perhaps a change of will in the case of the fallen angels. In the Aristotelian framework, change presupposes some kind of potentiality; this was taken to entail that there must be some potentiality in angels, which, if one were to equate potentiality with matter, would imply in turn that there is some

<sup>&</sup>lt;sup>7</sup> As is well known, Auriol is a pluralist with regard to substantial forms, that is, he maintains that a single substance can have multiple substantial forms at the same time; on this, see William O. Duba, "The Souls after Vienne: Franciscan Theologians' Views on the Plurality of Forms and the Plurality of Souls, ca. 1315–1330," in P. J. J. M. Bakker et al. (eds.), *Psychology and the Other Disciplines: A Case of Cross-Disciplinary Interaction (1250–1750)* (Leiden: Brill, 2012), 171–274. The present issue, however, does not ride on this question.

material constituent in them. Most medieval thinkers, one way or another, subscribed to both of these ideas, and were consequently often preoccupied with questions of angelic mutability and materiality starting at least from the earliest reception of Aristotle.<sup>8</sup>

Some thinkers, most famously Albert the Great and Thomas Aquinas, maintained that the second of the above considerations is mistaken. As Albert complains, it is a misunderstanding of Aristotle to think that potentiality requires a material component;<sup>9</sup> 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 incorporeality.<sup>10</sup>

Others, however, seem to believe that positing in angels the possibility of change (at least in some broad sense; more on this below) amounts to positing that they have a material component. The earlier debate on spiritual matter is relatively well known, and we do not need to review its details here.<sup>11</sup> But as an example, we can note that Richard Rufus of Cornwall, one of

<sup>&</sup>lt;sup>8</sup> For a helpful recent overviews 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 T. Hoffmann (ed.), *A Companion to Angels in Medieval Philosophy* (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 says about angels would apply to the human soul as well, either in its separated state after death, or in its conjoined state, or in both. However, since the soul is a substantial form of the corporeal human being, it raises a host of further questions, the treatment of which would go beyond the scope of this paper. In what follows I will therefore focus solely on angels and leave aside the question of how the issues raised apply to the human soul. For some of the issues involved, see Duba, "The Souls after Vienne."

<sup>&</sup>lt;sup>9</sup> Auriol, *In Sent.* 2.1.4; for analysis, see James A. Weisheipl, "Albertus Magnus and Universal Hylomorphism: Avicebron," *Southwestern Journal of Philosophy* 10 (1979), 239–60. <sup>10</sup> Auriol, *In Sent.* 2.3.1.1; see also note 4 above.

<sup>&</sup>lt;sup>11</sup> It was already examined in Odon Lottin, "La composition hylémorphique des substances spirituelles: Les débuts de la controverse," *Revue Néo-scolastique de Philosophie*, 2nd ser., 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), 239–54; and Lydia Schumacher, "The *De anima* Tradition in Early Franciscan

the first Western commentators on Aristotle's *Metaphysics*, spends five whole folios in his Oxford Sentences commentary on the question, considering in detail the arguments of Augustine, Hugh of St. Victor, and other theologians, 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 what we call "spiritual matter," that is, matter in spiritual substances. A question commentary on the *De anima* that has sometimes been attributed to the early Duns Scotus also agrees with the view, and uses similar arguments; the author of that work, in addition to 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.<sup>13</sup> Similar considerations are repeated in the treatment by Gonsalvus of Spain.<sup>14</sup> While the details of their views may differ, all these thinkers seem to maintain that hylomorphic composition is an essential concomitant of being a creature, and so it applies to the soul, to

Thought: A Case Study in Avicenna's Reception," *Mediaevalia: Textos e Estudos* 38 (2019), 97–115

<sup>&</sup>lt;sup>12</sup> Rufus, *Sententiae Oxoniensis* 2.3.C (Oxford, Balliol 62, fol. 110ra, transcribed by J. Ottman): "video quod non possit probabilius poni angelum habere materiam quam non habere." We should note that Long interprets Rufus as endorsing the doctrine of spiritual matter; see Long, "Of Angels and Pinheads," esp. 251.

<sup>&</sup>lt;sup>13</sup> The discussion can be found in Duns Scotus, *Quaestiones super II–III De anima*, q. 15 (OPh 5:134). See also Michael B. Sullivan, *The Debate over Spiritual Matter in the Late Thirteenth Century: Gonsalvus Hispanus and the Franciscan Tradition from Bonaventure to Scotus* (PhD thesis, The Catholic University of America, 2010), who takes the *Quaestiones De anima* to be authentic (though we do not need to take a stance on that issue here). I examine the views of the *Quaestiones*, Gonsalvus 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 Filosofia Medieval* (forthcoming).

<sup>&</sup>lt;sup>14</sup> See Gonsalvus of Spain, *Quaestiones disputatae*, q. 11 (ed. Amorós, 184–225); see also Sullivan, "The Debate over Spiritual Matter," 288–380.

angels, to celestial bodies, and to every created being in general. As will become clear below, Auriol disagrees with this, but he does not disagree with positing a material *principle* in angels.

Auriol treats the question of angelic matter both in an early treatise <sup>15</sup> and in his later commentary on the *Sentences*. <sup>16</sup> 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." <sup>17</sup> But he seems to have changed his mind by the time he wrote his *Sentences* commentary, where, after giving some arguments indicating that angels do not have any kind of matter, he remarks:

I say that I do not see much support on either side of this question, also because the philosophers and saints who most diligently inquired about the nature [of angels] explicitly meant that they are composed of matter and form. And so I hold with them...<sup>18</sup>

He arrives at this conclusion in two steps. In the first, more extensive one, he discusses whether spiritual substances—incorporeal beings that are capable of understanding, including angels, but also leaving open the possibility of there being other such creatures (demons, perhaps the

<sup>&</sup>lt;sup>15</sup> See Auriol, *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*."

<sup>&</sup>lt;sup>16</sup> The discussion occurs in the usual place, that is, distinction 3 of book 2 of his *Sentences* commentary; see 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 Padua, Biblioteca Antoniana, Ms. 161, and occasionally against the other manuscripts; for the list of manuscripts, see note 75 below.

<sup>&</sup>lt;sup>17</sup> Auriol, *De principiis naturae*, c. 3 (Vatican City, BAV, Vat. Lat. 3063, fol. 18vb; unpublished transcription by Martin Bauer, last corrected 1990): "Circa conclusionem secundam, licet aliqui ponant in talibus substantiis incorporalibus, materiam partem, non tamen necessitas ponendi aliqua apparet."

<sup>&</sup>lt;sup>18</sup> Auriol, *In Sent.* 2.3.1.3 (Zannetti, 59a): "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..."

separated soul, etc.)<sup>19</sup>—contain pure potentiality as a metaphysical constituent; then, second, having given an affirmative answer, he goes on without much further ado to equate this pure potentiality with matter.

In the first step, Auriol dismisses the Boethian (and Thomistic) solution of accounting for angelic composition in terms of *quod est* and *quo est*. He points out that if there were no composition of potentiality and actuality in angels, they would be simple in the way God is simple—a theologically unacceptable conclusion.<sup>20</sup> More interestingly, he thinks that there are also philosophical reasons for maintaining this view. The most important of these is that an angel is capable of understanding and willing things other than itself. According to Auriol, one could not account for this except by positing a purely potential component: "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 brought into act, whence it is in pure potency without any actuality."<sup>21</sup> 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

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<sup>&</sup>lt;sup>19</sup> 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; for the sake of simplicity, in what follows I will just call these spiritual creatures "angels."

<sup>20</sup> Cf. Auriol, *In Sent.* 2.3.1.2 (Zannetti, 58a): "Sola prima forma, quae est Deus, libera est ab illa

natura potentiali; omnis autem alia substantia, sive intelligentia movens orbem, sive anima intellectiva, participat de natura illa potentiali, et omnes sunt compositae praeter primam." <sup>21</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 56b): "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." Of course, Auriol 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 own creative divine essence.

possible if a part of his intellect is pure potency in a similar way to how prime matter is pure potency.<sup>22</sup>

Auriol's argument here relies on the principle, known from Averroes, that "the recipient must be devoid of the nature of the received." 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 including Auriol would claim, "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." Now, since Gabriel's intellect is able to receive all intelligible forms (whether it can do so 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 receive 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.

Auriol concludes this discussion as follows:

In these [separate] intellectual substances, and also in the soul, there are two true substances, one of which is wholly potential, and the other wholly act, from which they are composed intrinsically. And one [of these] is called the possible intellect, by which such a substance undergoes passion, that is, it receives an understanding of things other

<sup>&</sup>lt;sup>22</sup> See the text quoted in the previous footnote.

<sup>&</sup>lt;sup>23</sup> Averroes, *In De anima* 3.4, quoted from Jacqueline Hamesse (ed.), *Les auctoritates Aristotelis: Un florilège médiéval* (Leuven: Publications Universitaires, 1974), 191, no. 212:

<sup>&</sup>quot;Omne recipiens debet esse denudatum a natura recepti."

<sup>&</sup>lt;sup>24</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 56b): "sicut est impossibile alicui dare formam quam non habet, sic est impossibile recipere formam quam habet."

than itself, and consequently, by which it formally understands; the other is the understanding of itself, by which it is in act.<sup>25</sup>

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), namely, the possible intellect; and there is something that is actual (*quasi-form*), namely, the agent intellect and the act of understanding: "[the angel] is composed of these as from a formal and a material [principle]."<sup>26</sup>

Now, one might say that establishing that angels have a potential component is far from establishing that they have a material one.<sup>27</sup> Auriol disagrees; indeed, from the very beginning of the first article he seems to treat 'matter' as interchangeable with 'potentiality,'<sup>28</sup> without giving an explicit argument for this interchangeable usage. And when he goes on in the third article to address directly the question "Whether the separate [i.e., spiritual] substances are composed of

<sup>&</sup>lt;sup>25</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 59a): "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." Auriol also invokes Augustine's authority, for whose less than entirely unambiguous treatment, see his *De genesi at litteram* 1.1 (tr. J. H. Taylor, *The Literal Meaning of Genesis, vol 1: Books 1–6* (New York: Newman Press, 1982), 19–20).

<sup>26</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 56a): "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."

<sup>&</sup>lt;sup>27</sup> 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. See Joseph Li Vecchi, "Aquinas on the Matter of Mind," *Angelicum* 87 (2010), 371–82; and Therese Cory, "Aquinas's Metaphysical Mind: Knowing as Being" (unpublished manuscript), chap. 6.

<sup>&</sup>lt;sup>28</sup> 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]" (Zannetti, 56a).

matter and form,"<sup>29</sup> after introducing the affirmative answer quoted above, <sup>30</sup> he is content to say merely:

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., the first article, "Whether they are composed of potency and act"], nor any other authority except those that were introduced in the second question.<sup>31</sup>

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."<sup>32</sup>

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 the potential component of the archangel Gabriel and the prime matter of Sophie the cat. To understand these differences, we need to keep in mind that we cannot rely on any positive characteristics they might have, 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 instead on his commitment to the thesis that matter is, at least in some way, identical to its potency,<sup>33</sup> and on his further claim that potencies can be distinguished on the basis of the acts they are contrasted with. In other words, we can start to grasp the difference between the prime matter Sophie is composed of and the matter that Gabriel is composed of by considering the kind of potency they have—or rather, the

<sup>&</sup>lt;sup>29</sup> Auriol, *In Sent.* 2.3.1.3 (Zannetti, 58b): "Utrum substantiae separatae sint compositae ex materia et forma."

<sup>&</sup>lt;sup>30</sup> See note 18 above.

<sup>&</sup>lt;sup>31</sup> Auriol, *In Sent.* 2.3.1.3 (Zannetti, 59a): "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."

<sup>&</sup>lt;sup>32</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 58a): "ad respectum possibilitatis, nulla est differentia inter materiam primam et intellectum possibilem."

<sup>&</sup>lt;sup>33</sup> Cf. the rather convoluted discussion in *In Sent*. 2.12, and for a brief analysis, Friedman, "Is Matter the Same as Its Potency?," esp. 132–4.

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 kind of form. 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: particular sensible forms in the former case, universal intelligible forms in the latter.<sup>34</sup>

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 matter and spiritual matter. Corporeal prime matter is necessarily determined to three dimensions; in other words, it necessarily possesses the accident of quantity.<sup>35</sup> Consequently, all forms that are received by this corporeal matter are quantified: we can say that the substantial form of Sophie occupies the same

<sup>&</sup>lt;sup>34</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 57b): "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."

<sup>&</sup>lt;sup>35</sup> The question whether matter is necessarily quantified and hence extended, was a contentious issue in our period; for some literature on the issue, see Pasnau, *Metaphysical Themes*, esp. chap. 4.

place as her body, and hence has the same extension.<sup>36</sup> The possible intellect, by contrast, 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.<sup>37</sup>

A further difference between spiritual and corporeal matter concerns the kinds 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 reasons why Auriol introduced spiritual matter), Auriol thinks that angelic matter does not underlie transmutation, properly speaking.<sup>38</sup> Auriol does not spell out exactly what he means here, but we can conjecture that he had 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,

<sup>&</sup>lt;sup>36</sup> This is true even in the human case, perhaps because of some holenmeric way of existing; see Pasnau, *Metaphysical Themes*, chap. 16. In what way substantial forms are extended became an important topic of debate later in the fourteenth century; see Roberto Zambiasi, "Innovative Conceptions of Substantial Change in Early Fourteenth-Century Discussions of *minima naturalia*," *American Catholic Philosophical Quarterly* 97 (2023), 505–28.

<sup>&</sup>lt;sup>37</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 57b): "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." 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 2 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."

<sup>&</sup>lt;sup>38</sup> See Auriol, *In Sent.* 2.3.1.1 (Zannetti, 57b): "Tertia differentia est ex natura transmutationis, quia materia prima est illud quo aliquid recipitur cum transmutatione et cum abiectione 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 abiectione alicuius."

extensionless) form, no such transmutation occurs. In other words, while corporeal matter is an underlying substrate of substantial change, or transmutation, spiritual matter is not such an underlying substrate, even though its essence consists of being able to receive different forms.

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 in common between Gabriel's spiritual matter and Sophie's corporeal matter. Spiritual matter and corporeal matter are identical in that they are pure potencies: taken in this sense, 'matter' just means the potentiality of taking on different forms, and in this respect spiritual and corporeal matter are alike. The differences between them emerge only when we consider them as substrates, or (what amounts to the same thing) when we consider *what kind of form* they can take on, and how one of these forms can replace another in inhering in them. Since corporeal matter is always dimensioned whereas spiritual matter is not, the above-mentioned differences arise.<sup>39</sup>

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. He thus rejects the strategy, endorsed for instance by Gonteri Brito and Nicholas of Trivet, both roughly contemporaries, of no longer treating prime matter as pure potentiality and considering it instead as an essence existing in some actuality—which, at least for Gonteri and Nicholas, was motivated precisely by the consideration that unless prime matter has a positive essence, there cannot be different types of it.<sup>40</sup> Instead, on this question Auriol is closer to Aquinas and

<sup>&</sup>lt;sup>39</sup> Auriol, *In Sent.* 2.3.1.1 (Zannetti, 58a): "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."

<sup>&</sup>lt;sup>40</sup> See Aufredo Gonteri Brito, *In Sent.* 2.12.3.2 (Wrocław, Biblioteka Uniwersytecka, Ms. 195 (I F 184), fols. 501va–504va); Nicholas Trivet, *Quodl.* 4.9 (Basel, Universitätsbibliothek, Ms. IV B4, fol. 42rb–vb). As Gonteri puts it succinctly: "The argument [for the opposite] assumes

Hervaeus. 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 they treat this difference as requiring no further explanation in terms of difference-making actualities.<sup>41</sup> Auriol similarly thinks that we can distinguish pure potentialities by the kinds of act that they are contrasted with—in this case, particular and universal forms—and that 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 are material entities in the same way that cats are, and in 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, having a potential component. The view that angels have materiality may be surprising if we take 'matter' to mean some physical, extended stuff, but for Auriol, the term does not have this implication: there can be material entities that are neither corporeal nor extended. That being corporeal is not equivalent to being material can also be seen in Auriol's theory of celestial matter, to which we now turn.

#### 2. Celestial Matter

Having argued that angels are composed of matter and form, Auriol makes the perhaps surprising claim that celestial bodies are not composed of matter and form. To understand this,

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something false, because the matter of the heavens and the matter of the elements are not pure potencies, but rather have being" (fol. 504ra).

As Aquinas notes, the diverse matters are distinguished by analogy with the acts they are contrasted with. As examples he gives sight and hearing: the potency to see something and the potency to hear are different potencies because they are actualized by different objects. See Thomas Aquinas, *In Sent.* 2.2.1.1, ad 3; and *Summa theologiae* 1.66.2, ad 4. For Hervaeus, see *In Sent.* 2.12.3 (Moreau, 236–9); *Quodl.* 3.10 (Zimara, fols. 82vb–83va); and the short treatise *De materia caeli*, q. 3 (Zimara, fols. 38ra–40vb), which is dedicated specifically to the topic of heavenly matter.

we need to recall that the Aristotelian cosmos is divided into two parts. Supported by most of the then available empirical data, <sup>42</sup> 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 (so 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 change only with respect to place. Finally, while bodies on earth naturally tend to move 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. 43 Given these differences, the question arises whether they derive from deeper ones, that is, differences in metaphysical constitution. While things in the sublunary 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, 44 as maintaining 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 apparently, in tension with what Augustine proposed on the same issue when interpreting the creation story in the Book of Genesis. While his *Literal Commentary* does

<sup>&</sup>lt;sup>42</sup> 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), chap. 10, esp. 203–5. For a helpful general introduction to Aristotelian cosmology, see David C. Lindberg, *The Beginnings of Western Science* (Chicago: University of Chicago Press, 2007), 52–60. <sup>43</sup> For Aristotle, see, e.g., *Metaphysics* 8.4, 1044b6–8, and *De caelo* 1.2, 269a–270b. <sup>44</sup> For Averroes, see *De substantia orbis* 1.2. 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 Edward Grant, that they consists of ultimately "irreconcilable statements"; see Grant, "Celestial Matter: A Medieval and Galilean Cosmological Problem," *Journal of Medieval and Renaissance Studies* 13 (1983), 162.

not seem to commit him to a strong position in favor of any particular view,<sup>45</sup> he came to be interpreted based on this work as maintaining that when it is said in Genesis, "In the beginning, God created heaven and earth,"<sup>46</sup> 'heaven' should be taken to mean all spiritual creation, while 'earth' should be taken to mean the (as yet formless) matter of all corporeal things. This seems to imply that the original source of corporeal things, whether celestial or terrestrial, is one—in other words, that celestial and terrestrial bodies share the same kind of matter.

While there were various ways medieval thinkers dealt with this problem, the details of which we do not need to delve into here,<sup>47</sup> Auriol endorses what we can call the *Matterless Heavens View*. According to this position, the heavens and the heavenly bodies<sup>48</sup> do not have matter as a metaphysical constituent. Perhaps worried by Scotus's suggestion of the opposite,<sup>49</sup> Auriol also spends an entire question showing that the view does not contradict the Church Fathers, or Augustine's account. More specifically, he argues that "the heavens are not

<sup>&</sup>lt;sup>45</sup> See Augustine, *De Genesi ad litteram* 1.1 (PL 34:245; tr. Taylor, 19–20), where he lists no less than five possible interpretations of the first sentence of Genesis.

<sup>&</sup>lt;sup>46</sup> Gen. 1:1.

<sup>&</sup>lt;sup>47</sup> Overviews of the available positions can be found in Grant, *Planets, Stars, and Orbs*, and "Celestial Matter." These are very selective with regard to the later medieval period, however, since Grant only considers sources available in early printed editions, mostly commentaries on Aristotle's *De caelo*, whereas late medieval thinkers often discussed the issue, as Auriol does, in their commentaries on book 2 of the *Sentences*, either in distinction 12 or in distinction 14. For the earlier part of this 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), 229–80.

<sup>&</sup>lt;sup>48</sup> 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 the celestial orbs as well as the celestial bodies, or to the celestial bodies themselves. Auriol himself often goes back and forth between *caelum* and *corpora caelestia*. I will follow him in this, and will refer to the heavens and the heavenly bodies somewhat indiscriminately.

<sup>&</sup>lt;sup>49</sup> Scotus insists in all versions of his *Sentences* commentary that the views of the philosophers and the views of the theologians seem ultimately irreconcilable; or as he puts it, "This question is to be answered differently according to the sayings of the Philosopher and the Commentator, and according to theology" (*Lectura* 4.14, Vaticana 19:126).

composed, namely, of matter and form, nor are they forms or matter."<sup>50</sup> 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 Saint-Pourçain, John of Jandun, and Francis of Meyronnes.<sup>51</sup>

Auriol argues for the truth all three of these theses—that is, that the heavens are neither composite, nor form, nor matter—although unsurprisingly, he devotes most of his argumentative efforts to the first one. It will be enough to call attention to a few of his arguments here. The first argument is the one most usually made in favor of the Matterless Heavens View: that the heavenly bodies are ungenerable and incorruptible, whereas material beings cannot be. This argument tends to appear as the most important objection against the other accounts. As Auriol puts it summarily, "If a heavenly body were composite of matter and form, it would consequently be generable and corruptible." He elaborates on this point by arguing that positing that the heavens are composite, whether or not one takes them to have the same matter as earthly bodies, leads to insurmountable difficulties. His arguments rely on the Aristotelian theory 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

<sup>&</sup>lt;sup>50</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "Caelum non [est] compositum, scilicet ex materia et forma, nec forma, nec materia."

<sup>&</sup>lt;sup>51</sup> They all treat the question in distinctions 12 and 14 of their commentaries on the second book of the *Sentences*.

<sup>&</sup>lt;sup>52</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 186b): "Si corpus caeleste sit compositum ex materia et forma, consequenter sit generabile et corruptibile."

the matter of the heavenly bodies is of a different kind from the matter of the sublunary realm.<sup>53</sup> Since on this view heavenly matter is not in potency to any other kind of terrestrial form, there seems to be no risk of Venus ceasing to exist by, say, turning into a corruptible terrestrial body. But Auriol thinks 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 here does not refer back to his earlier treatment of angelic matter, in which, as we have seen, he argues that the distinction between angelic and corporeal matter can be drawn on the basis of the kinds of form or actuality they are in potency to. Thus, one may object that if he can draw that distinction, so too the proponent of celestial matter can draw one between celestial and sublunary matter. Since Auriol does not deal explicitly with this objection, we can only speculate about what his response might have been. He might have argued that the distinction between universal (intelligible) forms and particular (corporeal) forms is such that positing that one kind of matter is in potency only to one kind of form and not to the other does not endanger the claim that matter is pure potency. Celestial and sublunary forms, however, are both corporeal, and thus belong in some way to the same kind; positing a kind of matter that is in potency to the one and not to the other would imply that matter is not purely potential. Be that as it may, the second and perhaps more important argument points out that the matter that underlies one celestial body

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<sup>&</sup>lt;sup>53</sup> The view was famously endorsed by Aquinas. For some of the intricacies of attributing it to him, see Steven Baldner, "Thomas Aquinas on Celestial Matter," *The Thomist* 68 (2004), 431–67. For the traditional interpretation, as well as plenty of references, see Thomas Litt, *Les corps célestes dans l'univers de Saint Thomas d'Aquin* (Leuven: Publications Universitaires, 1963). It was also endorsed by such diverse figures as the early Alexander of Alexandria, Aufredo Gonteri Brito, Hervaeus Natalis, and Nicholas Trivet, who all discuss the issue in the usual place, namely, distinctions 12 and 14 of book 2 of the *Sentences*.

would still be able to take on the form of another celestial body, and in that case the first body would be corruptible.<sup>54</sup>

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, both celestial and terrestrial, is of the same kind. While Auriol thinks that this *Uniform Matter View* is at least more consistent in itself than the previous one, he also thinks it is no more able to account for celestial incorruptibility. One might want to claim, perhaps with Giles of Rome, that Venus is incorruptible because there simply is no contrary form that its matter would be able to take on,<sup>55</sup> or, as later perhaps proposed by Ockham, that there is no created active power that could reduce the inherent potency of celestial matter to act.<sup>56</sup> But Auriol thinks that these attempts, even if they succeed in explaining why the heavenly bodies *happen* to be incorruptible, fail to account for how or why they are *intrinsically* incorruptible.<sup>57</sup> In other words, he seems to think that if Aristotle is right that heavenly bodies are incorruptible and that their nature is so vastly different from that of earthly ones, it cannot be that this is so just because there happen to be no suitable natural agents; rather, it should be explained as a necessary fact that is due to their intrinsic metaphysical constitution. 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.

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<sup>&</sup>lt;sup>54</sup> This consideration may have led Hervaeus Natalis to endorse the view that there are perhaps as many kinds of matter as there are celestial bodies; see Hervaeus, *In Sent.* 2.12.3, esp. 239a. As Auriol insists, however (making 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 also be applied to any two distinct integral parts of a single celestial body (*In Sent.* 2.14.1.2, Zannetti, 190b; it already appears in his *De principiis naturae*, fol. 27vb). For Ockham, see *Rep.* 2.18 (OTh 5:398).

<sup>&</sup>lt;sup>55</sup> See especially Giles of Rome, *De materia coeli contra Averroistas* (Padua, 1493).

<sup>&</sup>lt;sup>56</sup> See Ockham, *Rep.* 2.18 (OTh 5:399–404).

<sup>&</sup>lt;sup>57</sup> Auriol, *In Sent.* 2.14.1.2 (Zannetti, 190b): "Harum viarum nulla satisfacit, nec salvat intrinsecam incorruptibilitatem quam oportet dare in caelo."

To understand Auriol's position better, it is worth looking at another one of his arguments against the heavens being composed of form and matter. 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.<sup>58</sup>

The argument relies on the Principle of Parsimony: if we can save the phenomena without positing matter and form as metaphysical parts in the heavenly bodies, then 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 (shape, color, etc.), presuppose it. According to Auriol, however, they do not:

Corporeality does not entail that there is matter in the heavens; for corporeal being is given by form, not by matter. Nor is this entailed by quantity, for although indeterminate quantity is on account of matter, determinate quantity is on account of form (and in the heavens there is only determinate quantity). Third, nor [is it entailed by any] sensible quality.... Every accident that is in the heavens is an accident that follows on account of form, not on account of matter.<sup>59</sup>

To understand the core of Auriol's argument here, we need to recall that in the broadly Aristotelian framework, *being a body* is, perhaps surprisingly, not a material characteristic. Something is a body because it possesses a form, namely, 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 inasmuch as it possesses the form of corporeity, but at

<sup>59</sup> Auriol, *In Sent.* 2.14.1.2 (Zannetti, 189a): "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."

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<sup>&</sup>lt;sup>58</sup> Auriol, *In Sent.* 2.14.1.2 (Zannetti, 189a): "Multitudo ponenda non est nisi ratio euidens 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."

the same time not possess matter as a metaphysical constituent (just as there is nothing implausible in maintaining that something can possess matter without being a body, as was seen in the previous section). Celestial bodies are precisely bodies of this matterless kind.

As an objector points out, however, celestial bodies are not simply bodies, but bodies with sensible accidents and motion. Auriol's response relies on the previous point: 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 the features he has just hinted at, namely, the kind of dimensions or quantity that celestial bodies can have, even if only extrinsically (more on this below). Briefly, Auriol thinks (and many agree) that ordinary, earthly bodies possess both indeterminate and determinate dimensions: <sup>60</sup> Sophie has indeterminate dimensions, since she can grow, and also has determinate dimensions, since she has a more or less cat-sized body. In general, indeterminate dimensions, as was briefly mentioned above in the context of spiritual matter, which lacks them, are responsible for corporeal matter being extended *at all*; and as was also mentioned, Auriol thinks that they are therefore necessary attributes of corporeal matter. They are indeterminate, since, as Auriol illustrates, when a given chunk of matter takes on the form of water and then the form of air, its extension changes. Now, according to the Aristotelian consensus, celestial bodies

<sup>&</sup>lt;sup>60</sup> 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 C. Leijenhorst et al. (eds.), *The Dynamics of Aristotelian Natural Philosophy from Antiquity to the Seventeenth Century* (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.

cannot change size or shape, that is to say, they do not have indeterminate dimensions at all. But then, since having corporeal matter necessarily entails having indeterminate dimensions, they cannot have corporeal matter either.<sup>61</sup>

While accounting for the bodiliness of heavenly bodies simply by pointing to their form of corporeity may suggest that they are pure forms, the second main point that Auriol seeks to establish is that they are not that either. As he 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.<sup>62</sup>

In other words, forms determine all their own perfections and qualities, and even their own determinate quantity. (Perfections and qualities are after all formal characteristics, and as was mentioned above, determinate quantity is due to the substantial form.) Heavenly bodies, however, do not and cannot determine all their own perfections and qualities, nor even, according to Auriol, their own determinate quantity and dimensions. The reason for the latter is that determinate quantity is due not to corporeal nature—which is the only kind of nature celestial bodies have, if we disregard their movers—but to the soul, or perhaps to the substantial form in the case of inanimate things. Once a particular substantial form is induced in corporeal

<sup>&</sup>lt;sup>61</sup> See Auriol, *In Sent.* 2.14.1.1 (Zannetti, 187a–b).

<sup>&</sup>lt;sup>62</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188a): "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, inquantum huiusmodi, non determinat sibi tantam quantitatem, corpus enim, inquantum corpus, non habet ex se quod sit tantum vel tantum, maius vel minus."

prime matter, it determines what kind of extension this chunk of matter can take on without losing that particular substantial form; in Auriol's example, a cow cannot be made to have the dimensions of a serpent without also ceasing to be a cow, nor can a serpent be made to have 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 from the 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 to perfect them.

Having a mover joined to a celestial body in the way a perfecting form is joined to matter may suggest that rather than 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,<sup>64</sup> he nevertheless takes up an argument against this third conjunct as well. Heavenly bodies are analogous to prime matter in some important ways, but they differ in one key respect: 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.<sup>65</sup> Thus, the celestial movers are not joined to the celestial bodies as, say, souls

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<sup>&</sup>lt;sup>63</sup> See Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "Unde anima quaelibet determinat figuram certam sui corporis, sine qua non potest esse: facias enim bovem longum, sicut serpentem, statim amittet esse bovis. Similiter non posset esse serpens quadratus, quin amittat natura serpentis figuram sibi propriam, sine qua impossibile est esse."

<sup>&</sup>lt;sup>64</sup> See Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "magis debet censeri materia quam forma." <sup>65</sup> See Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "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."

are joined to human bodies, giving them their first actuality of life, but are completely external to them.<sup>66</sup>

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." 67

What *are* they then? Of their positive characteristics, Auriol says little.<sup>68</sup> Auriol's silence on this point, however, seems to be more than merely accidental, and seems to follow from his view that celestial bodies and prime matter are similar in important respects. Just as prime matter cannot exist *in re* without substantial form, celestial bodies cannot exist without their movers; and just as prime matter receives all its characteristics from the forms, celestial bodies 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." Again, if we want to describe these celestial bodies in themselves rather than as they are with their moving

<sup>&</sup>lt;sup>66</sup> Auriol devotes a whole separate article to this question; see *In Sent.* 2.14.2.2.

<sup>&</sup>lt;sup>67</sup> See Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "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."

<sup>&</sup>lt;sup>68</sup> Indeed, as Edward Grant has noted, "by offering so little information, Aureoli could present the positive features of his conception of the heavens in but a few lines" (Grant, *Planets, Stars, and Orbs*, 249).

<sup>&</sup>lt;sup>69</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "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." See also earlier (187b): "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."

intelligence joined to them, Auriol thinks that all we can say is that they are "something as if in the middle [between matter and form], having the nature of a subject."<sup>70</sup>

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 the heavenly bodies have. As Edward Grant puts it, Auriol "judged the heaven to be an existent magnitude, a quanta esse"; Petagine, citing the same passage, describes Auriol's celestial body as a "quantified entity." But while characterizing the heavenly region and its bodies as inherently quantified would certainly be an interesting and novel position, it is not Auriol's. The above interpretation seems unfortunately to rest on a misreading in the often unreliable early printed edition. This edition indeed uses the phrase esse quanta three times, as well as esse coniuncta once; however, in the available manuscripts these same phrases appear without exception as essentia quinta, that is, 'fifth essence,' referring to Aristotle's remarks on the aether.

<sup>&</sup>lt;sup>70</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "est quasi medium, ut sit ratio subiecti."

<sup>&</sup>lt;sup>71</sup> Such characterizations are given in Grant, "Celestial Matter," and *Planets, Stars, and Orbs*, 247–48; and Petagine, *Il fondamento positivo*, esp. 295.

<sup>&</sup>lt;sup>72</sup> Grant, "Celestial Matter," 182.

<sup>&</sup>lt;sup>73</sup> Petagine, *Il fondamento positivo*, 215: "Il cielo resulta un entità quantificata."

<sup>&</sup>lt;sup>74</sup> All these instances occur within two paragraphs (Zannetti, 188bE–189aA).

<sup>&</sup>lt;sup>75</sup> The manuscripts I have checked are the following: Vatican City, Biblioteca Apostolica, Ms. Borgiano 404 (fol. 52rb) and Ms. Vat. lat. 942 (fol. 55va); Düsseldorf, Landes- und Staatsbibliothek, Ms. B. 159 (fol. 105rb–va); Florence, Biblioteca Nazionale Centrale, Ms. conv. soppr. A.3.120 (fol. 69rb) and Ms. conv. soppr. B.6.121 (fol. 70va–b); Naples, Biblioteca Nazionale, Ms. VII.C.3 (fol. 161va); Padua, 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 strongly suggests that the Rome edition is wrong in this case.

<sup>&</sup>lt;sup>76</sup> Apparently then, for Auriol and arguably for Aristotle, while aether is a "fifth element", it is not a material element. 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), 134–9.

Moreover, even apart from the manuscript evidence, 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 noted above, they do not have indeterminate quantity at all, precisely because they do not have matter. On the other hand, while they do have determinate quantity, Auriol explicitly notes multiple times that this is not something intrinsic to their natures but is given to them by an extrinsic source, namely, the moving intelligence. This means that for Auriol, quantity is not intrinsic to the heavenly bodies, even though they are in first actuality; he therefore cannot maintain that their first act is their quantity or that they are quantified subjects in themselves. All we can say about them, it seems, is that they are pure subjects in first act, and that this first act is their (unquantified but in some way perhaps dimensioned to corporeity.

### **Conclusion**

It has seemed to some interpreters, perhaps following Albert the Great and Thomas Aquinas in their evaluation of earlier thinkers,<sup>79</sup> that positing matter in angels or in the soul and not positing it in the heavenly bodies both rest on a confusion. While these views were supposedly supported by the claim that mutability entails matter, this claim, according to these interpreters, betrays a confusion about Aristotle's concept of matter.<sup>80</sup> As I have tried to show, however, this is not obviously the case.

<sup>&</sup>lt;sup>77</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 188b): "corpus caeli non determinat sibi figuram, inquantum talis natura corporalis est"; or "Figuram sibi propriam, sine qua impossibile est esse, puta rotunditatem, non habet caelum ex propria natura suae entitatis corporalis."

<sup>&</sup>lt;sup>78</sup> Auriol, *In Sent.* 2.14.1.1 (Zannetti, 189a): "Subjectum habens dimensiones tantum in actu suo."

<sup>&</sup>lt;sup>79</sup> For some details, see Weisheipl, "Albertus Magnus."

<sup>80</sup> See Long, "Of Angels and Pinheads," 253.

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

Regarding heavenly bodies as immaterial "bare subjects" might be a surprising position, and might also give the impression that with this new kind of entity, Auriol is stepping outside the standard Aristotelian hylomorphic scheme, in which things are either hylomorphic compounds or, occasionally, subsisting forms. Auriol, however, regards this view as altogether Aristotelian, deriving from the assumption, again, that matter is primarily a substrate of change, especially generation and corruption. If this is the case, then in entities where no such change

<sup>&</sup>lt;sup>81</sup> See, e.g., Aristotle, *Met.* 12.8, 1073b–74b. For analysis, see Case, "*Seraphicus supra Angelicum*," and Fernand Brunner, "Sur l'hylémorphisme d'Ibn Gabirol," *Les études philosophiques*, n.s., 8 (1953), 28–38.

occurs, one should resist the urge to posit matter, notwithstanding their corporeality and whatever other accidents they may have.<sup>82</sup>

What emerges from all this, in Auriol, is a conception of the universe as consisting of metaphysically different kinds of entities. Some of them, like Sophie the cat, consist of corporeal matter and form; others, like the archangel Gabriel, consist of spiritual matter and form; and still others, like the planet Venus, are metaphysically simple, neither form nor matter, but a bare subject in first act, in which the form of corporeity inheres. Wherever there is matter, there is a potency to take on different forms, particular forms in the case of corporeal matter, universal forms in the case of spiritual matter; this is why Gabriel has matter but Venus does not.

Moreover, wherever there is corporeal matter there is also extension, but where there is spiritual matter there is not; this is why Sophie is extended and Gabriel is not. And, perhaps more interestingly, the corporeal-incorporeal division does not coincide with the material-immaterial one; this is why Gabriel is a material entity and yet is incorporeal and unextended, while Venus is an immaterial entity and yet is corporeal and (at least extrinsically) extended.

On a more general level, these (at first sight) surprising theses that Auriol endorses also illustrate that matter, whatever it is in the Aristotelian framework, should not be simply equated with structureless physical stuff. The reason these theses might seem implausible is precisely because when thinking about hylomorphic entities it is easy to imagine them as consisting of some physical stuff structured in a certain way by a substantial form. But this is misleading: as

<sup>&</sup>lt;sup>82</sup> This also answers a possible worry that, given the above considerations about corporeity as a form sufficient to give bodiliness and in turn also sufficient to make it possible for something to be the subject of quantity and extension, one might be led to deny matter even in ordinary objects. But there seems to be no real danger of extending 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).

this case study has illustrated, matter, at least for such an Aristotelian as Auriol, is not a physical entity, but rather a metaphysical principle that accounts for the mutability of certain entities, such as cats and angels, but not, notoriously, for that of celestial bodies.<sup>83</sup>

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<sup>&</sup>lt;sup>83</sup> Research for this paper was funded by the project "Studying Medieval Hylomorphism Whole, 1300–1330," KU Leuven Internal Fund, grant C14/20/007. I am very grateful to Russell Friedman for the helpful feedback on an earlier version of this paper, and to Sonja Schierbaum and the audience at the lecture given on this topic at the University of Würzburg for their incisive comments. I am also grateful to the anonymous reviewers for their help in making the paper better than it would have been otherwise, and to Ian Drummond for his careful and thorough editorial work. All remaining errors are my own.

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