### **Thomas Aquinas's Prime Matter Pluralism**

**Abstract**: Prime Matter Pluralism (PMP) states that while the prime matter of all terrestrial bodies is the same, there is a unique prime matter for each celestial body. Prime matters are distinct in virtue of being in potentiality to different forms. Steven Baldner argues that although Thomas Aquinas endorsed PMP in *Summa theologiae* I, he ultimately rejected it in his *De caelo* commentary and *De substantiis separatis*. Besides exegetical evidence for this claim, Baldner presents a philosophical objection to PMP: according to PMP, distinct prime matters are restricted in their respective potentialities; such restriction requires form, however; therefore, prime matter is not pure potentiality. Since prime matter *is* pure potentiality, PMP is false. *Pace* Baldner, I argue that Aquinas endorses PMP as heartily in the later works as in *STh* I. Moreover, he resisted substantially the same objection to PMP as Baldner's several times. In particular, Aquinas repeatedly rejected the claim that the restriction of prime matter's potentiality requires form. In that case, when Aquinas calls prime matter "pure potentiality," he means that it is formless of itself, not that it is in potentiality to any form whatsoever.

Keywords: Aquinas, cosmology, hylomorphism, prime matter, substantial form

Since Aristotelian cosmology was debunked centuries ago, what Thomas Aquinas says about celestial bodies receives little attention from contemporary scholars. Nevertheless, since Aquinas's thought is so systematic, elements thereof acknowledged to be false can remain informative for their relevance to elements still interesting for their own sake. This essay concerns Aquinas's explanation of the natural incorruptibility of celestial bodies. Since celestial bodies corrupt, Aquinas's account of their incorruptibility is not very interesting for its own sake. Yet, if my thesis is correct, the account clarifies his doctrine of prime matter, a key piece of his natural philosophy and metaphysics. In that case, although celestial bodies' incorruptibility is no longer a cosmological *explanandum*, scholars of Aquinas's thought should attend to his explanation thereof.

Steven Baldner finds that in the last seven years of Aquinas's career, he gives two different explanations of celestial bodies' incorruptibility. The centerpiece of the earlier account,

i.e., that found in *Summa theologiae* I, is a doctrine I dub Prime Matter Pluralism (hereafter, PMP):

**PMP**: The prime matter of all terrestrial bodies is the same. In contrast, for any celestial body c, there is a unique prime matter  $M_c$ .

The prime matter of all terrestrial bodies is the same in the sense that in itself the prime matter of any terrestrial body is in potentiality to any terrestrial substantial form. In contrast,  $M_c$  is unique in the sense that it is not in potentiality to the same forms as the prime matter of any other body. According to the version of PMP Aquinas adopts in STh I,  $M_c$  is only in potentiality to the form that it has. Thus,  $M_c$  does not underlie the privation of any substantial form. Since a body is corruptible only if its prime matter underlies the privation of some substantial form, celestial bodies are incorruptible. According to Baldner, in two later works, i.e., the roughly contemporaneous commentary on Aristotle's De caelo and De substantiis separatis, Aquinas tells a different story: abandoning PMP, he explains celestial bodies' incorruptibility solely in terms of celestial form's perfection. Celestial bodies' prime matter is the same as that of terrestrial bodies. Baldner admits it is possible to take the earlier and later accounts to differ in emphasis, not doctrine. Yet he rejects any interpretation of the later accounts requiring "that both matter and form play a role in accounting for the incorruptibility of the heavenly bodies."

Baldner's grounds for rejecting such an interpretation are primarily exegetical. He also has philosophical reasons, however. Prime matter plays a role in explaining celestial bodies' incorruptibility only if PMP is true. According to Baldner, PMP is incoherent, however. He writes

I find it difficult to understand how prime matter can remain indeterminate and yet *of itself* have an ordination to this form rather than that. It seems to me that if prime matter is understood not as pure potency but as some sort of restricted potency, then it is no longer prime matter, but it is matter that has some formal determination. Something must

do the restricting; something must make the prime matter to be a restricted not a pure potency. But in such a case, we are no longer dealing with prime matter.

As pure potentiality, prime matter is not composed of matter and form. According to PMP, celestial and terrestrial prime matters are distinct in virtue of each being restricted in the range of forms it can receive. As Baldner says, "[S]omething must make the prime matter to be a restricted not a pure potency." An obvious candidate for that office is form. In that case, instead of being pure potentiality, prime matter is composed of matter and form. Therefore, PMP entails that prime matter both is and is not a composite.

My goal in this essay is to show that Aquinas endorses PMP just as heartily in *De caelo* and *De sub. separ*. as he did in *STh* I. He resisted objections to PMP akin to Baldner's no fewer than four times in his career, usually in the context of explaining the incorruptibility of celestial bodies. In particular, he always rejected the assumption that prime matter's potentiality cannot be restricted in virtue of prime matter itself. Moreover, in I *De caelo* and *De sub. separ*. 8 Aquinas accounts for celestial bodies' incorruptibility *both* in terms of celestial prime matter and the perfection of celestial form.

The paper's plan is as follows. First, I discuss Aquinas's argument for PMP in *STh* I, q.66, a.2. Second, I unpack his account of celestial bodies' incorruptibility in I *De caelo*, lect. 6 and *De sub. separ*. 8 and explain why Baldner takes those texts as evidence that Aquinas finally abandons PMP. For Baldner, a lot turns on Aquinas's assertion in I *De* caelo that the prime matter of a celestial body and that of a terrestrial body differ "through the relation (*habitudo*) to different forms." Baldner interprets this to mean that the two prime matters do not differ in themselves, but only inasmuch as they are united to forms of different sorts. In response, in section III, I argue that for Aquinas prime matter's "relation" to substantial form is nothing other than its being in potentiality to form. Prime matter *is* potentiality to form, however. Therefore,

for the prime matter of a celestial body and that of a terrestrial body to differ through the relation to different forms is for them to differ in themselves. In section IV, I offer two reasons why the account of incorruptibility in I *De caelo* succeeds only if it is read as relying on PMP. In section V, I argue that Aquinas endorses PMP in *De sub. separ.* 8, and that his account of celestial bodies' incorruptibility in that text appeals both to celestial prime matter and celestial form's perfection. Finally, in section VI, I circle back to Baldner's philosophical objection to PMP, explaining why, for Aquinas, prime matter's restricted potentiality does not undermine its metaphysical simplicity.

### I. PMP in Summa theologiae I

In *STh* I q.66, a.2 Aquinas asks whether there is a single prime matter (*una sit materia informis*) for all bodies. He begins his answer by endorsing Aristotle's argument for the claim that while terrestrial bodies are naturally corruptible, celestial bodies are naturally incorruptible.<sup>vi</sup> Supposing, *pace* Avicebron, that substantial form directly actualizes prime matter, <sup>vii</sup> from the corruptibility of terrestrial bodies and the incorruptibility of celestial bodies, "it follows of necessity that the matter of corruptible and incorruptible bodies is not the same." viii

Aquinas reasons to this conclusion as follows. Suppose there is a common matter for all bodies. Aquinas says, "Necessarily, matter, considered in itself, is in potentiality to the forms of all those things of which there is a common matter." Thus, considered in itself, the prime matter of any corporeal substance is in potentiality to any substantial form. Although the substance's form actualizes its prime matter, that prime matter remains in potentiality to all other forms. Thus, for any celestial body c composed of a celestial form F and prime matter M, M is actual with respect to F but remains in potentiality to all other substantial forms. What if F is a perfect

form, i.e., one that completely satisfies M's potentiality? Aquinas says, "[P]otentiality, considered in itself, relates indifferently to the perfect and the imperfect; hence, when [matter] is under an imperfect form, it is in potentiality to a perfect form, and conversely."xii Thus, despite F's perfection as the form of an incorruptible body, when M underlies F, M remains in potentiality to any corruptible form  $F^*$ . In that case, M underlies the privation of  $F^*$ . A body is naturally corruptible if and only if its prime matter underlies one form and the privation of another. Therefore, C is naturally corruptible. As Aristotle has shown, celestial bodies are naturally incorruptible, however. Therefore, D is not in potentiality to D is not the same as terrestrial prime matter. As Aquinas says, "Therefore, it is impossible that there is a single matter for a naturally corruptible body and a naturally incorruptible body."xiv

But when Aquinas denies "that there is a single matter for a naturally corruptible body and a naturally incorruptible body," is he speaking of *prime* matter? Is he not instead referring to secondary matter, i.e., the elements? On this reading, when Aquinas denies monism about matter, he only means that while corruptible bodies are made of earth, air, fire, and water, incorruptible bodies are made of the mysterious quintessence.\*\*

Of course, Aquinas agrees that the elemental matter of celestial bodies differs from that of terrestrial bodies. Nevertheless, interpreting his denial of monism about matter as a denial of monism about elemental matter fails to make sense of the passage's argument. For suppose that celestial (incorruptible) bodies and terrestrial (corruptible) bodies differ only in regard to elemental matter, while agreeing in prime matter. Recall that "matter, considered in itself, is in potentiality to the forms of all those things of which there is a common matter." In that case, although a celestial body c's elemental (secondary) matter is not in potentiality to a terrestrial

form, *c*'s prime matter *M* is. Underlying a celestial form, *M* does not have a terrestrial form. Thus, *M* underlies the privation of a terrestrial form. Thus, *c* is naturally corruptible. *Ex hypothesi*, *c* is naturally incorruptible, however. Therefore, celestial bodies and terrestrial bodies differ in prime matter, and not in elemental matter only.

The suggestion that celestial bodies and terrestrial bodies differ only in elemental matter fails for a second reason: according to Aquinas, the matter of each celestial body differs from that of any other. Again, "[n]ecessarily, matter, considered in itself, is in potentiality to the forms of all those things of which there is a common matter." Now suppose that the matter of Saturn and Jupiter is the same, i.e., in itself it is in potentiality to the same forms. In that case, while the matter of Saturn  $M_S$  underlies Saturn's form  $F_S$ ,  $M_S$  remains in potentiality to the form of Jupiter  $F_{\rm J}$ . Thus,  $M_{\rm S}$  underlies the privation of  $F_{\rm J}$ . Therefore, Saturn is naturally corruptible. Obviously, since Jupiter's matter  $M_J$  underlies  $F_J$  and the privation of  $F_S$ , Jupiter is also naturally corruptible. In general, if any two celestial bodies have a common matter, then those two celestial bodies are naturally corruptible. Ex hypothesi, all celestial bodies are naturally incorruptible. "Therefore," Aquinas reasons, "it remains that the matter of a celestial body, considered according to itself, is in potentiality only to the form which it has."xvi In other words, the incorruptibility of celestial bodies entails that each celestial body has a unique matter. The quintessence is not unique to any celestial body, however. Instead, all celestial bodies are made of it, just as all terrestrial bodies are made of earth, air, fire, and water. Therefore, when Aquinas insists that a celestial body's matter is in potentiality to a unique substantial form, the matter of which he speaks is not the quintessence.

One can summarize Aquinas's account of celestial bodies' incorruptibility in STh I as follows: unlike terrestrial bodies, for any celestial body c, c's prime matter  $M_c$  is in potentiality

to a single substantial form  $F_c$ . Since  $F_c$  completely satisfies  $M_c$ 's potentiality,  $M_c$  does not underlie the privation of any other form. Therefore, c is incorruptible.

### II. Baldner on I De caelo and De substantiis separatis 8

Aquinas's argument in *STh* I, q.66, a.2 explains a celestial body's incorruptibility in terms of its unique prime matter. By contrast, the accounts in *De caelo* and *De sub. separ*. attribute a major role to the perfection of celestial form. According to Baldner, "There is a change in emphasis from matter to form, and this change is indicative...of a change in doctrine." In section II, I discuss Aquinas's arguments in I *De caelo* lect. 6 and *De sub. separ*. 8 and explain why Baldner interprets them to signify Aquinas's abandonment of PMP.

In I *De caelo*, lect. 6 Aquinas answers three arguments of John Philoponus against the incorruptibility of celestial bodies. In the third argument, Philoponus asserts that like other natural bodies, celestial bodies include matter and privation. Therefore, like other natural bodies, celestial bodies are corruptible. xviii

Philoponus foresees the following objection: celestial bodies are incorruptible because their matter is not the same as that of terrestrial bodies. The objector's strategy is clear: since Philoponus asserts that celestial bodies' corruptibility follows from their having matter with privation, the objector counters that unlike a terrestrial body's matter, a celestial body's matter does not underlie the privation of any form. Therefore, the objector concludes, celestial bodies are incorruptible.

Philoponus answers that celestial bodies are corruptible even if their matter differs from that of terrestrial bodies. For Philoponus, if the matter of celestial bodies differs from that of terrestrial bodies, then "necessarily, [celestial and terrestrial] matter would be composed,

namely, of what is common to each matter and what causes diversity between matters." It is impossible for things which are matter only to be diverse. Instead, matters are diverse only if they include "what is common to each," i.e., prime matter, and "what causes diversity between matters," i.e., form. In other words, matters are diverse only if they are secondary matters. Thus, a celestial body's matter and a terrestrial body's matter are diverse if and only if the former is composed of prime matter and a celestial form, while the latter is composed of prime matter and a terrestrial form. In that case, the prime matter of a celestial body underlies the privation of a terrestrial form, and the prime matter of a terrestrial body underlies the privation of a celestial form. Therefore, celestial and terrestrial bodies are corruptible. In short, far from guaranteeing the incorruptibility of celestial bodies, the diversity of celestial and terrestrial matter entails that celestial bodies are corruptible.

To refute Philoponus's argument for celestial bodies' corruptibility, Aquinas must show that the matter of celestial bodies does not exist with privation. He accomplished this in *STh* I, q.66, a.2 by positing a unique prime matter for each celestial form. In I *De caelo*, lect. 6, he explains celestial bodies' incorruptibility as follows:

It is not necessary that the subject or matter [of the celestial body] have privation, because privation is nothing other than an absence of a form that could naturally belong to the thing. To this matter or subject [that is, of the celestial body], however, no other form could naturally belong, because its own form completely satisfies the potentiality of matter, since it is a kind of total and universal perfection. This is clear from the fact that the [celestial body's] active power is universal, not limited like the power of terrestrial bodies, whose forms, since they exist in a limited way (*tanquam particulares existentes*), cannot completely satisfy the entire potentiality of matter. Hence, [in a terrestrial body] the privation of some other form that it could naturally acquire remains in the matter along with the form [that it does have]. \*xx

In this text Aquinas attributes a prominent role to celestial form's perfection in explaining celestial bodies' incorruptibility. "[P]rivation," he says, "is nothing other than an absence of a form that could naturally belong to the thing." For any celestial body c composed of prime

matter M and a celestial form F, another form  $F^*$  could naturally belong to M were it not for F's being "a kind of total and universal perfection." F is universal inasmuch as it completely satisfies M's potentiality, with the result that no other form could naturally belong to M. Thus, M does not underlie the privation of any other form. Therefore, C is naturally incorruptible. As Baldner says, "The point of [Philoponus's] objection had been that it is by virtue of matter that the heavenly body is corruptible; Thomas's response is that it is by virtue of the form that the heavenly body is incorruptible."

The argument in I  $De\ caelo$ , lect. 6 represents a departure from the argument of  $STh\ 1.66$ , a.2 in at least two other respects, both of them related to form's beefed-up role. First, Aquinas has backed away from the claim that a celestial body's prime matter is only in potentiality to the form that it has. If M were only in potentiality to F, it would be pointless to explain c's incorruptibility in terms of F's perfection. \*\*xiii\* In itself M is in potentiality to forms besides F; nevertheless, F so satisfies M's potentiality that M does not underlie the privation of those forms. Second, in I  $De\ caelo$ , lect. 6 Aquinas has rejected his earlier claim that "potentiality, considered in itself, relates indifferently to the perfect and the imperfect." If he still held that, he would not now claim that a celestial form's perfection makes a celestial body incorruptible. Instead, as Baldner says, Aquinas "seems to be affirming what he denied in the  $Summa\ Theologiae$ : that a more perfect, more universal, more powerful form could completely satisfy the potentiality of matter." \*\*xxiii\*

Having refuted Philoponus's argument that celestial bodies are corruptible, Aquinas addresses Philoponus's claim that the matter of a celestial body and that of a terrestrial body differ only if they are composed. He says

From which it follows that the matter of the celestial body is different from that of the terrestrial bodies, not because there is some composition [in the matter], as Philoponus

thought, but through the relation [habitudo] of [matter] to different forms, one of which is total and the other is partial. In this way the potentialities [of matter] are diversified by the diversity of actualities to which they are related. xxiv

In *STh* I, Aquinas claimed that the prime matter of a celestial body and that of a terrestrial body differ in themselves. In the present passage he says those matters differ through the "relation" to different forms (*per habitudinem ad diversas formas*). \*\*x\*\* Baldner interprets prime matter's *habitudo* to form as its "being united to" form. As he says, "[M]atter in one instance is related to, or united to, an incorruptible form, but matter in another instance is related to, or united to, a corruptible form. \*\*x\*\* When matter is united to an incorruptible ("total") form, the form satisfies the matter's potentiality, with the result that it does not remain in potentiality to any other form. In contrast, when matter is united to a corruptible ("partial") form, it retains its potentiality to other forms. \*\*x\*\* In that case, explaining why celestial bodies, unlike terrestrial bodies, are incorruptible no longer requires PMP. Instead, when Aquinas speaks of the "diversity of matter," Baldner says, ""diversity of matter' means a diversity of *secondary* matter, not a diversity of prime matter. "\*xx\*\*iii

Similarly, according to Baldner, Aquinas's account of celestial bodies' incorruptibility in the contemporaneous *De substantiis separatis* makes no appeal to celestial prime matter. In *De sub. separ*. Aquinas distinguishes between three levels of creatures. Creatures on the highest level, i.e., the separated substances, "do not have in themselves anything which is a being in potentiality only" (*non habent in se ipsis aliquod quod sit ens in potentia solum*). In contrast, substances on the second level, i.e., celestial bodies, have "matter...which according to its essence is a being in potentiality only" (*ens in potentia tantum*). In other words, they are partially constituted by prime matter. Nevertheless, "their whole potentiality is fulfilled through a form, so that there remains in them no potentiality to another form; hence, they are incorruptible." Finally,

terrestrial bodies make up the third level. Like celestial bodies, they have matter which is a being in potentiality only; "nevertheless, the whole potentiality of matter [of this kind of substance] is not fulfilled through one form to which it is subject, so that it still remains in potentiality to other forms." Thus, terrestrial bodies are corruptible. \*xxix\* Commenting on this passage, Baldner says, "The only difference between the heavenly and the earthly bodies is the difference that comes from form...There is no doctrine of two prime matters. It is the form and the form alone that accounts for the incorruptibility of heavenly bodies."\*xxx

Motivated by the need to explain celestial bodies' incorruptibility, Aquinas endorsed PMP in *STh* I. According to Baldner, in *De caelo* and *De sub. separ*. he accounts for incorruptibility solely in terms of celestial form's perfection. Therefore, one safely infers that in these later works Aquinas abandoned PMP as otiose.

#### III. Prime Matter's "Relation" to Form

According to Baldner, the strongest evidence that Aquinas finally rejects PMP is his statement in I *De caelo*, lect. 6 that the matter of a celestial body and that of a terrestrial body differ "through a relation (*habitudo*) to different forms." He concedes that it admits of a reading in accord with the argument from *STh* I, q.66, a.2. On such a reading, "by *habitudo* Thomas means the inherent ordination of prime matter: one sort of prime matter is ordained to an incorruptible form and another sort of prime matter is ordained to a corruptible form." Baldner judges this reading to be incorrect, however, since "the *habitudo* in question is precisely one that is either to a total form or to a partial form." In other words, "The reason for diversity seems to be on the side of the form and not on the side of the matter." A celestial body is incorruptible, not because its matter is special, but because its form completely satisfies prime matter's

potentiality. xxxi Since celestial prime matter has lost its motivation, it is little wonder that Aquinas (apparently) makes no mention of it in I *De caelo*, lect. 6.

Aquinas claims that matters differ "through the *habitudo* to different forms" in the context of answering Philoponus's claim that diversity among matters is always caused by forms. Happily, he answered the same claim twice before, both times in the course of explaining celestial bodies' incorruptibility: first, in his commentary on II *Sentences* and again in *STh* I, q.66, a.2. In both texts, he insists that some matters, rather than differing because of forms, differ through the relation to different forms, where "relation" refers to matter's potentiality. In section III, I argue that Aquinas's earlier replies to Philoponus's claim clarify that *habitudo* in I *De caelo*, lect. 6 is not prime matter's being united to form. On the contrary, it is prime matter's potentiality to form. Given the identity of prime matter and its potentiality, Aquinas's assertion that matters differ "through the *habitudo* to different forms" amounts to a ringing endorsement of PMP in I *De caelo*.

Aquinas first claims that some matters differ through relation to different forms in his commentary on II *Sentences*. In that work he claims that terrestrial bodies and celestial bodies "differ in matter according as matter is determined by motion." The sorts of changes a body undergoes show what its matter is. On the one hand, since terrestrial bodies are generated and suffer corruption, their matter is such as to gain (and lose) substantial form. In other words, their matter is prime matter. Celestial bodies, on the other hand, are subject only to local motion. Only a complete subject can change places, however. "[T]herefore," Aquinas writes, "[a celestial body's] matter is as a complete subject among these lower [bodies]."xxxii A celestial body's matter is not prime matter, but the body itself, a *corpus simplex* not composed of matter and form.xxxiii

The prime matter of terrestrial bodies and the matter of celestial bodies do not differ through forms. Prime matter remains numerically identical across substantial change. Thus, although it is always united to one or another substantial form, its identity is not tied to form. Moreover, a place is not a form of the body it contains; rather, place is the "the innermost boundary of what contains [the body]."xxxiv Thus, wherever a celestial body is, it is trivially the case that its matter's identity is not tied to form. Since a terrestrial body's prime matter and a celestial body's matter differ without either's identity being tied to form, the matters do not differ through form.

Having claimed that the prime matter of terrestrial bodies and the matter of celestial bodies do not differ through form, Aquinas faces the following objection:

There is a single matter of those things actually or conceptually reducible to one and the same thing as to a first subject. But all bodies are of this sort. Therefore, etc. Proof of the middle: The final reduction of all [bodies] stops at simple matter without any form, for as long as any form is found in matter, it can be reduced further. But there is no diversity in matter without any form, for matter's principle of distinction is on the part of form. Therefore, the reduction of all bodies stops at a one final thing.xxxv

The objector agrees with Philoponus that matters are diverse only if they are "composed...of what is common to each matter and what causes diversity between matters." As the objector says, "[T]here is no diversity in matter without any form, for matter's principle of distinction is on the part of form." In that case, then for any distinct bodies, stripping away their forms leaves only the simple formless matter those bodies have in common. Therefore, it is impossible for terrestrial prime matter and celestial matter to be formless yet distinct.

Aquinas responds by explaining that not all beings are distinguished in the same way. He writes

According to Avicenna in book II, c. 85 of *The Healing*, a difference is not to be sought through actualities except among those things that agree in a single potentiality: for species agreeing in the potentiality of a genus are distinguished by their specific

differences; but the differences themselves which do not agree in a genus, such that a genus is part of their essence, are distinguished by themselves [seipsis distinguuntur]. Similarly, the most general genera are also not divided by any differences, but by themselves. Similarly, composites which agree in matter are also distinguished by diverse forms; but diverse matters are distinguished by themselves according to a relation to diverse acts [secundum analogiam ad diversos actus], as a diverse nature of possibility is found in them.xxxvi

For Aquinas, distinct beings are distinguished by actualities only *sometimes*, i.e., when those beings agree in potentiality. Species in the same genus are distinct in virtue of their specific differences. Again, "composites which agree in matter are also distinguished by diverse forms." Nevertheless, beings not agreeing in potentiality can also be distinct from one another. For example, since they are unanalyzable into potentiality and actuality, the differences that divide a genus into species are "distinguished by themselves" (*seipsis distinguuntur*). The same is true for unanalyzable potentialities. As Aquinas says, "[D]iverse matters are distinguished in virtue of themselves (*seipsis*) according to a relation to diverse acts (*secundum analogiam ad diversos actus*), as a diverse nature (*ratio*) of possibility is found in them."

Prime matter and celestial matter are diverse according to a "relation" to diverse actualities, "as a diverse nature (*ratio*) of possibility is found in them." For matters to contain diverse *rationes* of possibility is just for those matters to be in potentiality to diverse actualities. As the subject of substantial change, prime matter is in potentiality to substantial forms. In contrast, since a celestial body is only subject to local motion, its matter is only in potentiality to place. In virtue of itself (and not through a form) prime matter is in potentiality to substantial forms. In virtue of itself a celestial body's matter is in potentiality to place. Therefore, prime matter and the matter of celestial body are distinct in virtue of themselves (and not through forms) according as they are potentiality to different actualities.

Aquinas claims that matters differ through relation to different forms again in *STh* I, q.66, a.2. As we know, by the time Aquinas wrote *STh* I, he endorsed PMP. Unsurprisingly, then, he faces another objection appealing to the claim that distinction of matters is through forms: "Considered in itself, matter is only in potentiality. But distinction is through forms. Therefore, considered in itself, there is only one matter for all bodies."xxxviii

Aquinas answers in terms similar to those of the *Sentences* and *De caelo*. He says, "Since potentiality is said in relation to actuality, being in potentiality is diverse in virtue of being related to (*ordinatur ad*) a diverse actuality; like sight to color and hearing to sound. Hence, the matter of a celestial body is different from the matter of an element, because it is not in potentiality to the form of an element."xxxviii As in the *Sentences* commentary, matter's "being related" to actuality is its being in potentiality to a form. Sight and hearing differ inasmuch as they are related to visible and audible forms, respectively. Sight is a being in potentiality (*ens in potentia*) to visible forms and hearing is a being in potentiality to audible forms. For Aquinas, celestial and terrestrial prime matters differ similarly. As he says, "[T]he matter of a celestial body is different from the matter of an element, because it is not in potentiality to the form of an element." Celestial prime matter is not in potentiality to elemental forms (or to any terrestrial form, for that matter). On the contrary, it is "related" only to the celestial form it has. On the other hand, terrestrial prime matter is not in potentiality to any celestial form; rather, it is "related" to all terrestrial forms.

In the *Sentences* commentary and *STh* I Aquinas faced the same claim that he would attribute to Philoponus in I *De caelo*, lect. 6: matters are diverse only through forms. Moreover, in the two earlier texts Aquinas answered the claim in roughly the same terms he would later use in I *De caelo*: matters differ through a "relation" to different forms. For Baldner, Aquinas's

answer in I *De caelo* is crucial evidence of his final rejection of PMP. The two earlier texts belie this interpretation, however. In the *Sentences* commentary and *STh* I, the "relation" through which matters differ in not their being united to form; rather, "relation" refers to matter's potentiality. In that case, *habitudo* in I *De caelo*, lect. 6 signifies prime matter's potentiality to form, not its union with form. When Aquinas says that "the matter of a celestial body is different from that of terrestrial bodies...through a *habitudo* to diverse forms, one of which is total and the other is partial," he means that while the prime matter of a celestial body is in potentiality to a perfect form, that of a terrestrial body is in potentiality to imperfect terrestrial forms.

Thus far in section III, I have argued that for Aquinas prime matter's *habitudo* to form is its being in potentiality to form. Is this sufficient to show that he endorses PMP in I *De caelo*? It depends on whether prime matter and its potentiality to form are identical. For suppose that prime matter's essence and its potentiality to form are distinct. From this it follows that what distinguishes celestial and terrestrial prime matters is distinct from the essence of each.

Therefore, underlying celestial prime matter's potentiality to celestial form and terrestrial prime matter's potentiality to terrestrial form is a single prime matter essence for all bodies.

In fact, Aquinas flirted with this position at the beginning of his career. For example, commenting on I *Sentences*, he distinguishes two senses of prime matter's *potentia*. xxxix If "potentiality" signifies the principle in the category of substance correlative to actuality, then matter and its potentiality are identical. If "potentiality" signifies matter's relation to form (*relatio ad formam*), however, then matter and its potentiality are not identical, since matter is not in the category of relation. According to this text, prime matter is (so to speak) "composed" of an essence in the category of substance and an ordering to form in the category of relation. The category of relation.

In that case, despite being differently ordered to form, celestial prime matter and terrestrial prime matter are the same with respect to essence.

Almost immediately, Aquinas doubts that prime matter is composed of a prime matter essence and a distinct relation. A few distinctions later in the same commentary, he argues that creatures having being only in alio, despite falling short of God's absolute simplicity, are simple in the sense of not being composites. As examples of things having being only in another, he mentions prime matter, any form, and universals. He says, "[I]f it is said that [an ens in alio] is composed of its nature and the relations (habitudinibus) whereby it is ordered to God or to that with which it is composed, it is likewise asked in regard to those relations, whether they are things (res) or not." If the habitudo whereby prime matter is related to "that with which it is composed" is not a res, then prime matter's nature and its habitudo to form do not compose anything. If, on the other hand, the *habitudo* is a res, then prime matter's nature and its *habitudo* to form compose something. Nevertheless, the *habitudo* "is not related [to form] by another relation, but by itself, since that which is a relation per se is not related through another relation, but through itself." If prime matter's habitudo to form is a res distinct from prime matter's nature, then it is a relatio per se. In that case, it is a qualifiedly simple ens in alio. Aquinas concludes, "Hence, it will be necessary to arrive at something [either prime matter or its habitudo to form] which is not a composite, but still falls short of the simplicity of the First Being."xlii Having achieved his principal aim of showing that some ens in alio is qualifiedly simple, Aquinas does not settle the question of whether prime matter's habitudo to form is a res distinct from prime matter's essence. Nevertheless, he has backed away from the affirmative answer he gave to that question a few distinctions earlier.

Aquinas settled his doubts by the time he commented on the *Physics*, xliii concluding that prime matter's relation to form is not a *res* distinct from prime matter itself. He says, "Matter's potentiality is not some property superadded to its essence; rather, matter according to its own substance is potentiality to substantial being." He now unambiguously identifies prime matter's essence (*natura*, *substantia*) and its relation (*relatio*, *habitudo*) *ad formam*. In that case, for the mature Aquinas, prime matter's "potentiality" does not signify a *res* in the category of relation. As Wippel says, "[Aquinas] no longer finds it necessary to distinguish two meanings for the passive potentiality of matter. Matter is now regarded as identical with its potentiality and with its relationship to form."

Since the mature Aquinas identifies prime matter's essence with its potentiality to form, his assertion that the prime matter of a celestial body and that of a terrestrial body differ "the relation (habitudo) to different forms" is an endorsement of PMP. As I argued earlier in this section, Aquinas identifies prime matter's habitudo to form and its potentiality. Now we learn that prime matter's potentiality is not a relation or some other property added to prime matter's essence. Instead, it is prime matter's essence. Thus, a celestial body's prime matter is potentiality to celestial form, and a terrestrial body's prime matter is potentiality to terrestrial forms.

Therefore, for those prime matters to differ through habitudo to different forms is for them to differ essentially. In I De caelo Aquinas insists, pace Philoponus, that form is not always what diversifies matters. On the contrary, in virtue of being in potentiality to different forms, prime matters are diverse in themselves.

## IV. Revisiting the Account of Incorruptibility in I De caelo

Aquinas's account of celestial bodies' incorruptibility immediately precedes his assertion that "the [prime] matter of the celestial body is different from that of the terrestrial bodies... through the relation [habitudo] of [matter] to different forms." In the last section I argued that this assertion is a clear an endorsement of PMP. Aquinas would not endorse PMP if, as Baldner argues, his account of incorruptibility had only just then rendered PMP otiose. In section IV, I argue that celestial forms vary in the degree of their universality. Therefore, despite its emphasis on the role of universal celestial forms, the account in I De caelo still relies the doctrine of a plurality of prime matters.

Recall from section II that in I *De caelo* Aquinas distinguishes between "universal" and "particular" forms. As a "total and universal perfection," a celestial form "completely satisfies the potentiality of matter." Terrestrial forms, on the other hand, "cannot completely satisfy the entire potentiality of matter." Therefore, celestial bodies are incorruptible, while terrestrial bodies are not. As Baldner points out, if Aquinas still held that a celestial body's prime matter was in potentiality only to the form that it had, "there would be no need to talk...about 'universal' or 'more perfect' forms, as opposed to 'particular' or 'less perfect' forms." Thus, from Aquinas's distinction between universal and particular forms, Baldner infers that the account of incorruptibility in I *De caelo* does not rely a plurality of prime matters. \*\*Ivii

Baldner's inference relies on the false assumption that Aquinas takes all celestial forms as universal to the same degree. In II *De caelo*, lect.18, he explains that for Aristotle there is a *triplex gradus* among things capable of arriving at a perfect good. First, things in the best state have a perfect good without any action. Second, beings nearest to the best in the goodness of their disposition achieve a perfect good by one small action. Beings on the third level achieve

some perfect good by several actions. xlviii Below these there is a fourth level for beings which, whatever the number of their actions, manage to achieve only some less-than-perfect good. xlix

Aquinas appeals to the same four levels to explain why the higher planets have more motions than both the sphere of the fixed stars and the lowest planets. He writes

It must be understood that the optimum in things is permanence, which is in separated substances without any motion; whatever of permanence is in lower things derives from them. And hence it is also that the highest heaven, which is nearest to the separated substances, by its diurnal motion causes the sempiternity and permanence of things; and, therefore, it attains the maximum likeness to the first principle. The higher planets are more a cause of permanence and duration than the lower ones, however; hence, fixed things are attributed to Saturn...But the sun and the moon, which according to Aristotle are the lower planets, have efficacy especially for causing transmutations among bodies here below. This is certainly not the optimum, but something ordered to the optimum and preliminary to it; for the lower bodies through the transmutation of generation and corruption achieve perpetuity in a species, which they cannot have in an individual. li

The perfect good in question is to cause the permanence of permanent things. <sup>[ii]</sup> Separated substances belong to the highest *gradus* since without motion they cause "whatever of permanence is in lower things." Some celestial bodies also cause the permanence of permanent things, albeit with motion. For example, the highest heaven, i.e., the sphere of the fixed stars, causes the permanence of planets and sublunary beings. Since it does so by its lone diurnal motion, it belongs to the second *gradus*. Next, the planets closest to the highest heaven, e.g., Saturn, belong to the third level since their several motions cause the permanence of the lower planets and sublunary bodies. In contrast, the sun and the moon do not cause the permanence of sublunary things. Instead, they cause only successive things, i.e., generation and corruption. Generation and corruption are preliminary to the permanence of sublunary species, however. Therefore, although the lower planets do not achieve any perfect good, they do cause "something ordered to the optimum and preliminary to it."

The account of incorruptibility in I *De caelo* states that a celestial body's active power "is universal, not limited like the power of terrestrial bodies." As the text just quoted shows, Aquinas does not take every celestial body's active power as universal to the same degree. First, the active power of the planets closest to earth, i.e., the moon and the sun, is universal only with the respect to successive things, i.e., the generation and corruption of sublunary bodies. The active power of the higher planets, e.g., Saturn, is more universal than that of the lower planets, since by it the higher planets cause the permanence of sublunary substances and of the lower planets. Moving still further from earth, the sphere of the fixed stars has the most universal active power of any body, for it causes the permanence of all bodies other than itself. liii

According to the account in I *De caelo*, a celestial form is "a kind of total and universal perfection." But since a body's form is the source of its active power, and each celestial body's active power is universal to a different degree, each celestial form must be universal to a different degree. For example, the form of the sun is universal inasmuch as it confers on the sun power to act as the universal cause of generation. In contrast, the form of Saturn is universal inasmuch as it endows Saturn with power to act as the universal cause of permanence of all corporeal substances except the highest sphere.

That celestial forms are universal to different degrees belies Baldner's interpretation of the account of celestial bodies' incorruptibility in I *De caelo*. Suppose for *reductio* that, in accord with Baldner's reading, all celestial bodies have the same prime matter M. The form of Saturn  $F_S$  is more universal than the form of the moon  $F_L$ . In that case, if  $F_L$  satisfies M's potentiality, then M is not even in potentiality to  $F_S$ . On the other hand, if  $F_S$  satisfies M's potentiality, then  $F_L$  does not satisfy it. Therefore,  $F_S$  and  $F_L$  cannot both satisfy M's potentiality. Supposing that only one of them satisfies M's potentiality, it must be the more universal form  $F_S$ . Thus,  $F_L$  does not

satisfy *M*'s potentiality. In that case, the moon's prime matter underlies the privation of *F*s. Therefore, the moon is corruptible. In fact, supposing that all celestial bodies have the same prime matter, since celestial forms vary in the degree of their universality, only the most universal celestial form, i.e., the form of the highest heaven, satisfies prime matter's potentiality. Therefore, the highest heaven is the only incorruptible celestial body. *Ex hypothesi*, all celestial bodies are incorruptible, however. Therefore, all celestial bodies do not have the same prime matter.

Since for Aquinas celestial forms vary in the degree of their universality, the account of incorruptibility in I De caelo succeeds only if for each celestial body c, c has a unique prime matter  $M_c$ . As explained in section II, however, the account in I De caelo implies that in itself a celestial body's prime matter is in potentiality to forms besides its own form  $F_c$ . Thus, the uniqueness of  $M_c$  does not consist in its being in potentiality only to  $F_c$ . The account works, however, if the uniqueness of  $M_c$  consists in its potentiality corresponding to the universality of  $F_c$ . That is, considered in itself  $M_c$  is in potentiality to its form  $F_c$  and to all forms less universal than  $F_c$ , but to no forms whose universality exceeds that of  $F_c$ . For example, the moon's prime matter  $M_L$  is in potentiality to the lunar form  $F_L$ . In addition, considered in itself  $M_L$  is in potentiality to all forms less universal than  $F_L$ , i.e., terrestrial forms. But since God created  $M_L$  as the subject of  $F_L$ , and  $F_L$  completely satisfies the potentiality of  $M_L$  for terrestrial forms,  $M_L$  does not underlie the privation of any terrestrial forms. Therefore, the moon is guaranteed never to corrupt and be replaced by a lower body. Moreover, since the potentiality of  $M_L$  corresponds to the universality of  $F_L$ ,  $M_L$  is not in potentiality to any form more universal than  $F_L$ . Therefore, no higher celestial body will ever be generated from  $M_L$ . In general, for any celestial body c

composed of prime matter  $M_c$  and a substantial form  $F_c$ , c is incorruptible if and only if the potentiality of  $M_c$  corresponds to the universality of  $F_c$ .

Like Baldner's reading of I *De caelo*, lect. 6, mine takes Aquinas to have rejected two features of his account of celestial bodies' incorruptibility in *STh* I, q.66. First, he no longer holds that a celestial body's prime matter is in potentiality only to the form that it has. Second, he has abandoned the claim that in itself prime matter's potentiality relates indifferently to the perfect and the imperfect. Unlike Baldner's reading, however, mine takes Aquinas as retaining his earlier claim that each celestial body has a unique prime matter. Therefore, unlike Baldner's reading, mine is compatible with Aquinas's view that celestial forms vary with respect to their universality and power.

There is a final reason to read the account in I De caelo as relying on PMP: simply put, for Aquinas, no account of celestial bodies' incorruptibility that includes monism about prime matter successfully explains why celestial bodies are incorruptible. As I have admitted, the accounts in De caelo and De sub. separ. imply the falsity of his earlier claim that "potentiality, considered in itself, relates indifferently to the perfect and the imperfect." Nevertheless, he had already considered what does and does not follow from rejecting that claim when commenting on II Sentences. As I explained in section III, in that work Aquinas denies that celestial bodies are composites of prime matter and substantial form. Since a celestial body's matter is only in potentiality to place, it cannot serve as the subject of substantial change. Therefore, celestial bodies are incorruptible. Anticipating an objection, Aquinas says, "You cannot say that as [celestial matter] exists under a celestial form, matter's whole potentiality is fulfilled, so that nothing remains in the same potentiality to another form." The objector's point is that, if one posits celestial form's perfection, then celestial form fulfills matter's potentiality. In that case,

one explains celestial bodies' incorruptibility without positing a difference between celestial and terrestrial matters. (Of course, this is the position Baldner attributes to Aquinas in I De caelo and De sub. separ.) In answer, Aquinas says, "Although a celestial form is the noblest, nevertheless, having been received in prime matter, it will not satisfy [prime matter's] whole potentiality." liv This is the reply he later rejects. His answer does not end there, however. For the sake of argument, he supposes that "a celestial form by its perfection would fulfill matter's whole potentiality." In that case, "it would still be necessary that matter existing under an elemental form would be in potentiality to a celestial form, and it would be actualized through the action of a celestial power; and thus a celestial body would be generable and corruptible." Even supposing that a celestial form fulfills matter's potentiality, if the same prime matter underlies elemental and celestial forms, the prime matter underlying elemental forms is in potentiality to celestial forms. Moreover, for every passive potentiality in nature, there is an active potentiality to actualize it, for otherwise the former would be inevitably frustrated. Vi Thus, prime matter existing under an elemental form "would be actualized through the action of a celestial power." In that case, celestial bodies are generable and corruptible. In sum, Aquinas himself denies that celestial form's perfection suffices to explain celestial bodies' incorruptibility. Therefore, one should read Aquinas's account of incorruptibility in I De caelo as also relying on celestial prime matter. When he claims that a celestial body's form "completely satisfies the potentiality of matter," while the forms of terrestrial bodies "cannot completely satisfy the entire potentiality of matter" he refers to two different matters.

## V. PMP in De substantiis separatis 8

In section IV, I argued that Aquinas's account of celestial bodies' incorruptibility in I *De caelo* relies on PMP. I now wish to address Baldner's interpretation of *De sub. separ.* 8. First, I show that there *is* a doctrine of (at least) two prime matters in *De sub. separ.* 8. Second, I argue that the account of incorruptibility Aquinas offers there relies on his commitment to celestial prime matter.

Once again, in *De sub. separ*. 8 Aquinas affirms PMP in response to the claim that since form causes diversity among matters, matters without form are not diverse. Aquinas's adversary here is not Philoponus, but Avicebron, who claims that even the separated substances are composites of matter and form. To prove this claim, Avicebron first argues that spiritual substances cannot be purely material. According to Aquinas, Avicebron argues as follows: suppose that spiritual substances are matter alone. In that case, "there cannot be many spiritual substances, since of itself matter is one and is diversified through forms." There are many spiritual substances, however. Therefore, separated substances are not matter alone. <sup>Ivii</sup>

Of course, Aquinas does not aim to show that separated substances are wholly material. Nevertheless, he judges Avicebron's argument to the contrary unsound. Since this passage contains a clear statement of Aquinas's PMP (perhaps even clearer than that in *STh* I), it merits to be quoted at length:

It is not necessary that things which are only matter are without diversity, even as this is not necessary concerning substances which are only forms. For it was said that since matter according to its essence is a being in potentiality, lviii it is necessary that there are diverse matters according to the diversity of potentiality. By the substance of matter we do not mean anything other than the very potentiality which is in the genus of substance. For the genus of substance, like the other genera, is divided into potentiality and actuality. And according to this nothing prohibits that some substances are diverse, which are in potentiality only, according as they are related (*ordinantur*) to diverse genera of actualities: in this way the matter of the celestial bodies is distinguished from the matter of the elements. For the matter of the celestial bodies is in potentiality to perfect actuality, i.e., to a form which completes the whole potentiality of matter, so that that no

potentiality to other forms remains. But the matter of the elements is in potentiality to an incomplete form, which cannot perfect the whole potentiality of matter. lix

This passage is significant for two reasons. First, it contains an affirmation of PMP contemporaneous with *De caelo*. <sup>lx</sup> At the start, Aquinas asserts that things which are matter only (*materiae tantum*) can be diverse. Again, after clarifying that "matter" signifies the "very potentiality in the genus of substance," he says that "some substances are diverse, which are in potentiality only" (*in potentia tantum*). Therefore, when he says that "it is necessary that there is a diversity of matters according to the diversity of potentiality," he is speaking of prime, and not secondary, matters. Prime matters are diverse according as some are in potentiality only to terrestrial forms, while others are in potentiality to celestial forms. Aquinas's clear affirmation of PMP at the outset of *De sub. separ*. 8 helps one see why he makes no mention of two (or more) prime matters when enumerating the grades of substance later in the chapter.

Second, this text's affirmation of PMP enables one to grasp the account of celestial bodies' incorruptibility later in *De sub. separ.* 8. Recall from section II that at the end of *De sub. separ.* 8 Aquinas argues that unlike a terrestrial form, a celestial form fulfills its matter's whole potentiality; therefore, unlike terrestrial bodies, celestial bodies are incorruptible. Similarly, at the start of *De sub. separ.* 8 he contrasts "a form which completes the whole potentiality of matter, so that no potentiality to other forms remains," and "an incomplete form, which cannot perfect the whole potentiality of matter." He adds a detail crucial to the chapter's explanation of incorruptibility, however: "the matter of the celestial bodies is in potentiality to perfect actuality...the matter of the elements is in potentiality to an incomplete form." The prime matter of a celestial body and that of a terrestrial body are not in potentiality to the same forms.

Therefore, celestial form and terrestrial form are not complete ("perfect") and "incomplete" relative to the same matter. Terrestrial prime matter is not in potentiality to celestial form;

therefore, celestial form is not complete with respect to it. Rather, celestial form is complete with respect to *celestial* prime matter. Likewise, a terrestrial form is incomplete relative to *terrestrial* prime matter, for it is a terrestrial form's inability to perfect terrestrial prime matter ("the matter of the elements") which explains a terrestrial body's corruptibility. A terrestrial form's incompleteness makes a terrestrial body corruptible, and a celestial form's completeness makes a celestial body incorruptible. Therefore, *pace* Baldner, the distinction between celestial and terrestrial prime matters plays an essential role in Aquinas's account of celestial bodies' incorruptibility in *De sub. separ.* 8.

# VI. Baldner's Philosophical Objection to PMP

In sections III-V, I have argued that Aquinas affirms PMP in I *De caelo* and *De sub*. *separ*. 8, and that the accounts of celestial bodies' incorruptibility in those texts rely on PMP. Before concluding, I wish to return briefly to Baldner's philosophical objection to PMP. Of course, prime matter is not composed of matter and form. According to PMP, prime matter's potentiality is restricted, i.e., no body's prime matter is in potentiality to *all* corporeal substantial forms. In that case, as Baldner says, "Something must do the restricting." Thus, prime matter is composed of prime matter and a principle that restricts prime matter's potentiality, e.g., a form. Therefore, PMP is contradictory inasmuch as it entails that prime matter both is and is not a composite.

Does Aquinas miss a glaring contradiction in PMP? In fact, Baldner's objection to PMP succeeds only if PMP entails that each of the diverse prime matters constitutes a specific *kind* of prime matter. In other words, for any celestial body c, c's prime matter  $M_c$  constitutes a specific kind of prime matter, and the prime matter of terrestrial bodies  $M_t$  constitutes another specific

kind of prime matter. There are specific kinds of prime matter only if they are the same with respect to a genus M, however. Since members of a single genus are distinct in kind only if they have distinct forms, prime matters distinct in kind have distinct forms. In that case, Baldner would be correct that "we are no longer dealing with prime matter," but with secondary matters. Prime matters are not the same with respect to a genus, however. As Aquinas says, "[T]he matter of a celestial body and of the elements is not the same, except according to analogy, according as they agree in the notion of potentiality." Since diverse prime matters are the same only in the notion of potentiality, they are not the same with respect to a genus. Thus, prime matters are not diversified according to kinds. Therefore, their respective potentialities are not restricted by forms, and PMP is not contradictory in the way Baldner alleges.

Moreover, I have presented ample evidence that Aquinas denies the crucial premise of Baldner's objection to PMP: "something [besides the prime matter itself] must do the restricting." For example, as we saw in the last section, in *De sub. separ*. 8 Aquinas says, "[T]he genus of substance, just as the other genera, is divided into potentiality and actuality. And according to this nothing prohibits that some substances are diverse, which are in potentiality only, according as they are related to diverse genera of actualities." The prime matter of a celestial body and that of a terrestrial body are "related to," i.e., in potentiality to, "diverse genera of actualities." In other words, their potentialities are diversely restricted. Nevertheless, those prime matters are "in potentiality only." Thus, for Aquinas, nothing actual restricts the respective potentialities of celestial prime matter and terrestrial prime matter.

Instead, prime matter's potentiality is restricted in virtue of itself. As explained in section III, when Aquinas commented on II *Sentences*, he did not yet endorse PMP. Nevertheless, he affirms that prime matter and celestial matter are distinct. When an objector challenges him on

the grounds that "there is no diversity in matter without any form," he answers that since prime matter and celestial matter do not agree in a potentiality, they are not distinct through forms.

Instead, they are distinct *seipsis*, i.e., in virtue of themselves. Two entities *x* and *y* are distinct in virtue of themselves only if in virtue of *x* itself, *x* has what distinguishes it from *y*, and viceversa. Thus, prime matter and celestial matter are distinct in virtue of themselves only if in virtue of itself prime matter has what distinguishes it from celestial matter, and vice-versa. Moreover, Aquinas says that the matters are distinct *seipsis* "according to a relation to diverse actualities."

What distinguishes prime matter from celestial matter is that the former's potentiality is restricted to substantial form. Therefore, in virtue of itself, prime matter's potentiality is restricted to substantial form. Likewise, what distinguishes celestial matter from prime matter is that the former's potentiality is restricted to place. Therefore, in virtue of itself, celestial matter's potentiality is restricted to place. Since Aquinas holds that the respective potentialities of prime matter and celestial matter are restricted in virtue of themselves, he denies that other principles, e.g., forms, are necessary to do the restricting.

Similar reasoning explains why, after embracing PMP, Aquinas continues to deny Baldner's key premise. Recall that in *STh* I, q.66, a.2, Aquinas faces the objection that prime matters cannot differ, since, once again, "distinction is through forms." He answers, "[B]eing in potentiality is diverse in virtue of being related to a diverse actuality...Hence, the matter of a celestial body is different from the matter of an element, because it is not in potentiality to the form of an element." <sup>Ixiii</sup> Unlike an element's prime matter, a celestial body's prime matter "is not in potentiality to the form of an element," but only to the celestial form that it has. Thus, celestial prime matter and elemental (terrestrial) prime matter do not agree in a potentiality. Therefore, they are not distinguished by a form. Since their distinction consists in their respective

potentialities being diversely restricted, their respective potentialities are not restricted by forms. Rather, celestial prime matter's potentiality is restricted in virtue of the prime matter itself, and elemental prime matter's potentiality is restricted in virtue of the prime matter itself. Therefore, nothing else is required to do the restricting.

The mature Aquinas's identification of prime matter's essence and its potentiality to form sheds still more light on why he denies that something else must restrict prime matter's potentiality. Recall that early in the commentary on I *Sentences* Aquinas took prime matter as composed of a prime matter essence *E* and that essence's relation to substantial form. From that early view of prime matter's composition, it follows that any diversity between celestial and terrestrial prime matters would be down to *E*'s restriction by a *habitudo* to substantial form. While a relation to terrestrial form restricts *E* in the case of terrestrial prime matter, in the case of celestial prime matter, a relation to celestial form restricts *E*. Celestial and terrestrial prime matters are essentially the same, however, vindicating monism about prime matter.

Aquinas endorsed pluralism about prime matter from the time he wrote STh I onward. Nevertheless, any diversity among prime matters is down to the restriction of prime matter's essence by that essence's habitudo to substantial form. As Wippel shows, however, the mature Aquinas identifies prime matter's essence and its habitudo to substantial form. Thus, what restricts prime matter's essence is the essence itself, and not anything superadded to it. For any terrestrial body t, t's prime matter  $M_t$  is in potentiality only to terrestrial forms in virtue of the essence of  $M_t$ . Again, for any celestial body c, the potentiality of c's prime matter  $M_c$  corresponds to the universality of its form  $F_c$  in virtue of the essence of  $M_c$ . Neither in the case of  $M_t$  nor in that of  $M_c$  is what restricts prime matter's essence anything over and above that essence. Prime matter's restricted potentiality is its essence. Baldner admits to having trouble understanding

"how prime matter can remain indeterminate and yet *of itself* have an ordination to this form rather than that." For Aquinas, strictly speaking prime matter does not "have" an ordination to this or that substantial form. Rather, Aquinas's identification of prime matter and its potentiality to form means that prime matter simply is an ordination to this or that genus of actuality. Therefore, the restriction of prime matter's potentiality does not imply that it is has any formal determination.

#### VII. Conclusion

My goal has been to show that from the time Aquinas wrote *STh* I, he never gave up the view that explaining celestial bodies' incorruptibility requires committing to a plurality of prime matters. Baldner rightly observes that Aquinas's accounts of celestial bodies' incorruptibility in *De caelo* and *De sub. separ*. differ from that of *STh* I inasmuch as they accord a more prominent role to celestial form's perfection. I have argued that Baldner incorrectly concludes from that change that Aquinas has rejected PMP. On the contrary, Aquinas's assertion in I *De caelo*, lect. 6 that the prime matter of a celestial body and that of a terrestrial body differ "through a relation to different forms" is an affirmation that prime matters differ essentially. Moreover, since Aquinas holds that celestial forms differ in the degree of their universality, the account in I *De caelo* succeeds only if it relies on PMP. Again, Aquinas's claim in *De sub. separ*. 8 that while celestial prime matter is in potentiality to a perfect form, terrestrial prime matter is in potentiality to incomplete forms implies that the account of incorruptibility in that passage relies on PMP. For Aquinas, since prime matter's potentiality to form is identical with its essence, prime matter's ordering to this or that genus of actuality does not threaten its metaphysical simplicity.

At the very outset I claimed that if my reading of Aquinas's account of celestial bodies' incorruptibility is correct, then the account clarifies his doctrine of prime matter. Throughout his career – including in texts where he endorses PMP – Aguinas asserts that the prime matter of any body is potentia pura and potentia tantum. lxv Wherein does prime matter's "purity" consist, however? Is prime matter "pure" (1) in the sense of completely lacking any form or (2) in the sense of being receptive of any substantial form whatsoever? Ixvi Thomists sometimes claim that prime matter's potentiality is pure in both senses. For example, David Oderberg says, "[Prime matter] is a pure passive potentiality, without any form whatsoever...but it is wholly receptive of any form whatsoever." Similarly, Baldner's objection to PMP assumes that prime matter is pure potentiality only if it is unrestricted, i.e., receptive of any substantial form whatsoever. lxviii I have argued that Aquinas's ultimate account of celestial bodies' incorruptibility relies on his endorsement of PMP, however. According to PMP, the prime matter of a celestial body and that of a terrestrial body differ according as they are in potentiality to different forms. Moreover, the same is true for the prime matters of any two celestial bodies. Therefore, Aquinas's mature account of celestial bodies' incorruptibility implies that prime matter as such is not "wholly receptive of any form whatsoever." Therefore, from STh I onward, when Aquinas asserts that prime matter is pure potentiality, he means "pure" in sense (1) but not in sense (2). In that case, a contemporary Thomist should say that although prime matter is in potentiality to substantial forms of every existing sort, this is due to forms not being as diverse as they could be. As it happens, there are only naturally corruptible bodies with incomplete forms. If, counterfactually, there were also incorruptible bodies with complete forms varying in their universality and power, then there would be a diversity of prime matters, each varying with respect to the forms it could receive. In sum, if my reading of Aquinas's account of celestial bodies' incorruptibility is

correct, then he does not take prime matter to be in potentiality to any form whatsoever. Instead,

he regards pure potentiality's purity to consist only in its formlessness.

i Steven Baldner, "Thomas Aquinas on Celestial Matter," *The Thomist* 68 (2004): 431-467. Baldner's interpretation of Aquinas on celestial matter principally counters that of Litt (see Thomas Litt, *Les corps celestes dans l'univers de saint Thomas d'Aquin* [Louvain & Paris: Publications Universitaires, 1963], 6-7), but also those of Wippel (see John F. Wippel, *The Metaphysical Thought of Godfrey of Fontaines* [Washington, D.C.: The Catholic University of America Press, 1981], 286-87) and Bobik (see Joseph Bobik, *Aquinas on Matter and Form and the Elements: A Translation and Interpretation of the* De Principiis Naturae *and the* De Mixtione Elementorum *of St. Thomas Aquinas* [Notre Dame: University of Notre Dame Press, 1998], 199-205).

ii The incorruptibility of celestial bodies entails that they are not subject to most varieties of accidental change, either. Aquinas argues, "There is unity of prime matter only in things which agree in generation and corruption. Consequently, those things also agree in three motions, namely, in growth and diminishment and alteration, according as growth and diminishment are not without generation and corruption, which is also the terminus of alteration" (Thomas Aquinas, II *Sent.*, d.12, q.1, a.1, ad 5 [*Scriptum super libros Sententiarum*, ed. Pierre Mandonnet (Paris: Lethielleux, 1929)], 304). Whatever is subject to growth and diminishment (quantitative change) or alteration (qualitative change) is also subject to corruption. Since celestial bodies are naturally incorruptible, they are subject to neither quantitative nor qualitative change. Instead, celestial bodies are subject only to local motion. In sum, despite being material, celestial bodies are subject to a much narrower range of accidental changes than are terrestrial bodies. (Unless otherwise noted, all translations of Aquinas's works are my own.)

iii As Baldner says, "Thomas earlier considers the matter as the principle of incorruptibility, but comes later to regard the form as the principle of incorruptibility" ("Thomas Aquinas on Celestial Matter," 465).

iv On this reading, "The earlier text [i.e., *STh* I] emphasizes matter, but does not exclude the role of form, and the later text [i.e., *De caelo*] emphasizes the role of form, but does not exclude the role of matter. Hence Thomas's mature position can be given as one story, not two" (Baldner, "Thomas Aquinas on Celestial Matter," 466).

v Baldner, "Thomas Aquinas on Celestial Matter," 466 (emphasis in original).

vi As Aquinas explains, Plato asserted that the four elements are subject to mutual transformation. Thus, they share a common prime matter. Since all bodies – including celestial ones – are constituted by the four elements, all bodies share a common prime matter. Therefore, celestial bodies are naturally corruptible. Nevertheless, Plato asserts, God's will preserves them from corruption. Against this view, Aristotle appeals to bodies' natural motions: while a celestial body's motion is circular (and so lacks contrarieties), terrestrial bodies' motions are contrary. Since generation and corruption stem from contraries, terrestrial bodies are naturally corruptible, while celestial bodies are naturally incorruptible (see Thomas Aquinas, *Summa theologiae* I, q.66, a.2 [Leonine Edition 5 (Rome, 1889), 156]).

vii For Avicebron, a substantial form – whether celestial or terrestrial – supervenes on a form of corporeity inhering immutably in prime matter. In that case, as Aquinas observes, "Corruption would happen through the removal of the subsequent [i.e., substantial] forms. This would not be corruption *simpliciter*, but only *secundum quid*, since something actual would underlie the privation" (*STh* I, q.66, a.2 [Leonine ed., 5:156-157]).

viii "Supposito autem quod nulla forma quae sit in corpore corruptibili remaneat ut substrata generationi et corruptioni, sequitur de necessitate quod non sit eadem materia corporum corruptibilium et incorruptibilium" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).

ix "Oportet ergo quod materia, secundum se considerata, sit in potentia ad formam omnium illorum quorum est materia communis" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).

x "Per unam autem formam non fit in actu nisi quantum ad illam formam. Remanet ergo in potentia quantum ad omnes alias formas" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).

xi "Sic ergo materia, secundum quod est sub forma incorruptibilis corporis, erit adhuc in potentia ad formam corruptibilis corporis" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).

xii "Quia potentia, quantum est de se, indifferenter se habet ad perfectum et imperfectum: unde sicut quando est sub forma imperfecta, est in potentia ad formam perfectam, ita e converso" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).

xiii "Therefore, according as it is under the form of an incorruptible body, matter will still be in potentiality to the form of a corruptible body. And since it does not have [that form] in actuality, it will be simultaneously under a form and under a privation, for the lack of a form in what is in potentiality to the form, is privation. But this is the disposition of a corruptible body" (STh I, q.66, a.2 [Leonine ed., 5:157]). For Aquinas, a body is naturally corruptible if and only if its prime matter is under one form and under the privation of another. But does it makes sense to say that prime matter underlies a privation? Prime matter cannot be united to more than one substantial form at a time. Therefore, if prime matter is in potentiality to any two forms, F and  $F^*$ , but is united to F, it does not have the privation of  $F^*$ . As Aquinas explains, however, prime matter's relation to privation is analogous to its relation to form. He says, "[M]atter which is understood [to be] without any form and privation, but subject to form and privation, is called prime matter" (De principiis naturae, c.2 [Leonine Edition 43 (Rome, 1976), 41.74-78]). As prime matter is both without form and subject to form, so it is without privation yet subject to privation. Although prime matter is formless according to its essence, it is subject to the form actualizing it. Similarly, although prime matter – or, as I will explain, the prime matter of terrestrial bodies – is without privation according to its essence, it is subject to the privation of each form which does not actualize it, but which it could receive. This explanation is confirmed when Aquinas says, "[P]rivation is not said except of a determinate subject" (De principiis naturae, c.2, [Leonine ed., 43:40.30-31]). In what follows, whenever I speak of prime matter as underlying a privation, it is always of prime matter as determined by a substantial form.

- xiv "Impossibile ergo est quod corporis corruptibilis et incorruptibilis per naturam, sit una materia" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).
- xv Commenting on *STh* I, q.66, a.2, Robert Pasnau denies that Aquinas concludes that the prime matter of celestial bodies is distinct from that of terrestrial bodies. He says, "The argument instead is that earthly bodies are composed of the four basic elements (earth, air, fire, water), elements not found in the heavens: 'the nature of a heavenly body is different from the nature of the four elements' (66.2c). The heavenly bodies are composed entirely of a fifth essence, a quintessence" (Robert Pasnau, *Thomas Aquinas on Human Nature* [Cambridge: Cambridge University Press, 2002], 137).
- xvi "Relinquitur ergo quod materia corporis caelestis, secundum se considerata, non est in potentia nisi ad formam quam habet" (*STh* I, q.66, a.2 [Leonine ed., 5:157]).
- xvii Baldner, "Thomas Aquinas on Celestial Matter," 458.
- xviii "In omni corpore naturali est materia et privatio, ut patet ex 1 *Physic*.: sed ubicumque est materia cum privatione, est potentia ad corruptionem: ergo corpus caeleste est corruptibile" (Thomas Aquinas, *In Libros Aristotelis de Caelo et Mundo*, lib.1, lect.6, n.3 [Leonine Edition 3 (Rome, 1886), 23]).
- xix "Si quis autem dicat quod non est eadem materia caelestium corporum et inferiorum, obiicit in contrarium: quia secundum hoc oporteret quod materia esset composita, ex eo scilicet quod est commune utrique materiae, et ex eo quod facit diversitatem inter materias" (I *De Caelo*, lect.6, n.3 [Leonine ed., 3:23]).
- xx I De Caelo, lect.6, n.6, 24 (Baldner's translation, slightly amended).
- xxi Baldner, "Thomas Aquinas on Celestial Matter," 461.
- xxii As Baldner says, "[I]f it is true that prime matter in the heavenly bodies has a restricted potency to one form only, then I do not see how form has any role to play at all in accounting for incorruptibility. If the matter can by its own nature be united to one form only, then, of course, the form satisfies the entire potency of that prime matter, but that fact is really attributable to the matter. There would be no need to talk, as Thomas does, about 'universal' or 'more perfect' forms, as opposed to 'particular' or less perfect forms, that are able to satisfy the potency of matter" ("Thomas Aquinas on Celestial Matter," 466).
- xxiii Baldner, "Thomas Aquinas on Celestial Matter," 461.
- xxiv I De Caelo, I.6, n.6, 24 (Baldner's translation, slightly amended).
- xxv As Baldner notes, "The word 'relation,' of course, is out of place, because matter is not *related* to form, as though matter and form were two *things*" ("Thomas Aquinas on Celestial Matter," 461).
- xxvi Baldner, "Thomas Aquinas on Celestial Matter," 462.
- xxvii As Baldner says, "It is the fact that the matter of the heavenly body is united to a 'total' form that makes it incorruptible, unlike the matter of earthly (*sic*) bodies that are united to 'partial' forms' ("Thomas Aquinas on Celestial Matter," 462).
- xxviii Baldner, "Thomas Aquinas on Celestial Matter," 462. As Baldner says, "Matter is different, however, according to the different forms that we recognize. If the form is the form of an incorruptible substance, we have incorruptible matter; if the form is the form of a corruptible substance, we have corruptible matter" ("Thomas Aquinas on Celestial Matter," 461).
- xxix "Illae enim substantiae quae perfectissime esse participant non habent in se ipsis aliquid quod sit ens in potentia solum, unde immateriales substantiae dicuntur. Sub his vero sunt substantiae quae etsi in se ipsis huiusmodi

materiam habeant, quae secundum sui essentiam est ens in potentia tantum; tota tamen earum potentialitas completur per formam, ut in eis non remaneat potentia ad aliam formam, unde et incorruptibiles sunt, sicut caelestia corpora, quae necesse est ex materia et forma composita esse. Manifestum est enim ea actu existere; alioquin motus subiecta esse non possent, aut sensui subiacere, aut alicuius actionis esse principium. Nullum autem eorum est forma tantum: quia si essent formae absque materia, essent substantiae intelligibiles actu simul et intelligentes secundum se ipsas: quod esse non potest, cum intelligere actus corporis esse non possit, ut probatur in libro de anima. Relinquitur ergo quod sunt quidem ex materia et forma composita: sed sicut illud corpus ita est huic magnitudini et figurae determinatae subiectum, quod tamen non est in potentia ad aliam magnitudinem vel figuram: ita caelestium corporum materia ita est huic formae subiecta, quod non est in potentia ad aliam formam. Sub his vero substantiis est tertius substantiarum gradus, scilicet corruptibilium corporum, quae in se ipsis huiusmodi materiam habent, quae est ens in potentia tantum; nec tamen tota potentialitas huiusmodi materiae completur per formam unam cui subiicitur, quin remanet adhuc in potentia ad alias formas" (Thomas Aquinas, *De substantiis separatis*, c.8 [Leonine Edition 40, part D (Rome, 1968), 54-55:118-151]).

- xxx Baldner, "Thomas Aquinas on Celestial Matter," 464.
- xxxi Baldner, "Thomas Aquinas on Celestial Matter," 462.
- xxxiii "Sed loci mutatio....convenit corpori caelesti; et ideo materia ejus est sicut subjectum completum in istis inferioribus, ut dicit Commentator in Lib. de substantia orbis" (II Sent., d.12, q.1, a.1, ad 5 [Mandonnet, ed., 304]). xxxiii As Baldner explains, in this Aquinas follows Averroes, who says, "And since it was declared that this celestial body is ingenerable and incorruptible, it appears that it is necessary for it to be a simple body, not composed of matter and form" (Averroes, Sermo de substantia orbis in Aristotelis opera cum Averrois commentariis, vol.9 [Venice: Apud Junctas, 1562], cap.2, 6D; cited in Baldner, "Thomas Aquinas on Celestial Matter," 439, n.26). xxxiv Aristotle, Physics, trans. R.P. Hardie and R.K. Gaye, in The Complete Works of Aristotle: The Revised Oxford Translation, vol. I, ed. J. Barnes (Princeton: Princeton University Press, 1984), IV.4, 212a20.
- xxxv "[Q]uorumcumque est resolutio actu vel intellectu in unum et idem sicut in subjectum primum, eorum est materia una. Sed omnia corpora sunt hujusmodi. Ergo et cetera. Probatio mediae. Illud in quo stat ultima resolutio omnium, est simplex materia sine aliqua forma: quia quamdiu invenitur aliqua forma in materia, contingit ulterius resolvere. Sed in materia quae est sine omni forma, non est aliqua diversitas: quia principium distinctionis materiae est ex parte formae. Ergo omnium corporum resolutio stat in uno ultimo" (II *Sent.*, d.12, q., a.1, arg. 3 [Mandonnet, ed., 301]).
- xxxvi "Ad tertium dicendum, quod, secundum Avicennam, *Suff.*, lib. II, cap. LXXXV, non est quaerenda differentia per aliquos actus nisi in illis quae in una potentia conveniunt: species enim quae conveniunt in una potentia generis, distinguuntur specificis differentiis; sed ipsae differentiae quae non conveniunt in genere, sic quod genus sit pars essentiae earum, seipsis distinguuntur: similiter etiam genera generalissima non dividuntur aliquibus differentiis, sed seipsis: similiter etiam composita quae conveniunt in materia distinguuntur per formas diversas; sed diversae materiae seipsis distinguuntur secundum analogiam ad diversos actus, prout in eis diversa ratio possibilitatis invenitur" (II *Sent.*, d. 12, q. 1, a. 1, ad 3 [Mandonnet, ed., 303]).
- xxxvii "Praeterea, materia in se considerata, est solum in potentia. Sed distinctio est per formas. Ergo materia in se considerata, est una tantum omnium corporalium" (*STh* I, q.66, a.2, arg.4 [Leonine ed., 5:156).
- xxxviii "[C]um potentia dicatur ad actum, ens in potentia est diversum ex hoc ipso quod ordinatur ad diversum actum; sicut visus ad colorem, et auditus ad sonum. Unde ex hoc ipso materia caelestis corporis est alia a materia elementi, quia non est in potentia ad formam elementi" (*STh* I, q.66, a.2, ad 4 [Leonine ed., 5:157).
- xxxix The distinction was occasioned by an objection to Aquinas's denial that the soul is identical to its powers. As Wippel explains, "According to objection 4, prime matter is identical with its potency. But just as passive potency follows upon prime matter, so does active potency follow upon form. Therefore a substantial form such as the essence of a soul must be identified with its active potency or power" (John F. Wippel, *The Metaphysical Thought of Thomas Aquinas* [Washington, D.C.: The Catholic University of America Press, 2000], 318).
- xl "Ad quartum dicendum, quod si per potentiam passivam intelligatur relatio vel ordo materiae ad formam, tunc materia non est sua potentia, quia essentia materiae non est relatio. Si autem intelligatur potentia, secundum quod est principium in genere substantiae, secundum quod potentia et actus sunt principia in quolibet genere, ut dicitur...sic dico, quod materia est ipsa sua potentia..." (I Sent., d.3, q.4, a.2, ad 4 [Mandonnet, ed., 117], cited in Wippel, The Metaphysical Thought of Thomas Aquinas, 318, n.92).
- xli As Wippel says, "The distinction [Aquinas] has introduced implies that if by passive potency we have in mind the ordering or relationship of matter to form, matter is not identical with its potency" (Wippel, *The Metaphysical Thought of Thomas Aquinas*, 318-319).
- xlii "Si enim dicatur, quod componitur ex ipsa sua natura et habitudinibus quibus refertur ad Deum vel ad illud cum quo componitur, item quaeritur de illis habitudinibus utrum sint res, vel non: et si non sunt res, non faciunt

compositionem; si autem sunt res, ipsae non referuntur habitudinibus aliis, sed seipsis: quia illud quod per se est relatio, non refertur per aliam relationem. Unde oportebit devenire ad aliquid quod non est compositum, sed tamen deficit a simplicitate primi" (I *Sent.*, d.8, q.5, a.1, cited in Wippel, *The Metaphysical Thought of Thomas Aquinas*, 319, n.93).

xliii Torrell dates the *Physics* commentary to 1268-69, when Aquinas had just returned to Paris from Rome (Jean-Pierre Torrell, *Saint Thomas Aquinas. Vol. I: The Man and His Work*, trans. Robert Royal [Washington, DC: The Catholic University of America Press, 2005], 342).

xliv "Non igitur potentia materiae est aliqua proprietas addita super essentiam eius; sed materia secundum suam substantiam est potentia ad esse substantiale" (Thomas Aquinas, *In octos libros Physicorum Aristotelis* I, lect.15, 3 [Leonine Edition 2 (Rome, 1884), 52], cited in Wippel, *The Metaphysical Thought of Thomas Aquinas*, 319). Since the *materia* of which Aquinas speaks is potentiality to *esse substantiale*, he certainly has prime matter in mind. xlv Wippel, *The Metaphysical Thought of Thomas Aquinas*, 319-320.

xlvi Baldner, "Thomas Aquinas on Celestial," 466.

xlvii Baldner says, "Thomas's justification of the role of form in *De caelo* and *De substantiis separatis* would not seem to have much point, if he were indeed maintaining a doctrine of two kinds of prime matter" ("Thomas Aquinas on Celestial," 466-67).

xlviii "Dicit ergo primo quod in his quae possunt pervenire ad aliquod bonum perfectum, triplex gradus invenitur. Quorum supremus est eius quod optime se habet, et non indiget aliqua actione ad acquirendum bonum perfectum; sed hoc existit ei sine aliqua actione. Secundus gradus eius est quod est propinquissimum in bonitate dispositionis optimo, quod scilicet acquirit perfectum bonum per unam et modicam actionem. Tertius gradus est eorum quae magis distant ab optimo, quae tamen acquirunt perfectum bonum per plures operationes" (II *De Caelo*, lect.18, n.2 [Leonine ed., 3:191-192]).

xlix "Et dicit quod invenitur in quarto gradu aliquid quod, quibuscumque laboribus, non potest pertingere ad hoc quod adipiscatur bonum perfectum, sed potest consequi quoddam aliud bonum minus perfecto bono; puta si aliquod corpus per nullum exercitium posset consequi perfecte bonam habitudinem, sed per aliqua exercitia consequeretur aliquantulum meliorem dispositionem quam prius habebat" (II *De Caelo*, lect.18, n.3 [Leonine ed., 3:192]).

Aristotle says, "It would seem reasonable, since the primary body [i.e., the highest sphere] has one spatial movement, for what is closest to it to move with the fewest movements – for example, two, the next three, or that there be some other order of this sort. But as things stand, the contrary is the case. For the sun and the moon move with fewer movements than some of the wandering stars. And yet these are farther away from the center and closer to the primary body" (Aristotle, *De caelo*, trans. C.D.C Reeve [Indianapolis: Hackett, 2020], 49).

ii "Secundum hoc ergo intelligendum est quod optimum in rebus est permanentia. Quae quidem in substantiis separatis est absque omni motu; et quidquid permanentiae est in inferioribus rebus, illinc derivatur. Et inde est etiam quod supremum caelum, quod est propinquissimum substantiis separatis, suo motu diurno est causa sempiternitatis et permanentiae rerum: et ideo maxime attingit ad similitudinem primi principii. Superiores autem planetae sunt magis causa permanentiae et durationis quam inferiores: unde Saturno attribuuntur res fixae...Sol autem et luna, qui sunt inferiores planetae secundum Aristotelem, habent maxime efficaciam ad causandum transmutationes in istis inferioribus corporibus: quod quidem non est optimum, sed aliquid ordinatum ad optimum et praevium ei; nam corpora inferiora per transmutationem generationis et corruptionis consequuntur perpetuitatem in specie, quam in individuo habere non possunt" (II *De Caelo*, lect.18, n.11 [Leonine ed., 3:194-195]).

lii Unlike successive things, continuous duration is not essential to the oneness of permanent things. As Aquinas says, "There are some things whose continuous duration is essential to what makes them one (as is obviously the case with change and time, for instance). But there are other things whose continuous duration is not essential to what makes them one (as with the oneness of permanent things), though it may be accidental to it, if their existence is subjected to change" (*Thomas Aquinas's Quodlibetal Questions*, trans. Turner Nevitt and Brian Davies [Oxford: Oxford University Press, 2020], IV, q.3, a.2, 345-346). In contemporary parlance, "[S]uccessive things are composed of 'temporal parts,' which Aquinas thinks only together constitute *one and the same thing* by the unbroken continuity in their duration... Permanent things, on the other hand, have their existence and the parts of their essence wholly in an instant and have a unity without continuity of duration in its very notion, except *per accidens*, insofar as their existence is subjected to motion, especially generating and corrupting motions" (Turner Nevitt, "Annihilation, Re-creation, and Intermittent Existence in Aquinas," *The Metaphysics of Personal Identity: Proceedings of the Society for Medieval Logic and Metaphysics Volume 13*, edited by Stephen Ogden, Gyula Klima, and Alex Hall [Newcastle upon Tyne: Cambridge Scholars Publishing], 116-117).

liii Other texts support my assertion that, for Aquinas, the celestial bodies' respective active powers are universal to varying degrees. Obviously, the separated substances are the most universal (creaturely) causes of permanence, for "whatever of permanence is in lower things derives from them." Nevertheless, of the *superiores planetae*, which

belong to the third *gradus*, Aquinas says, "etiam sunt causae universales effectuum in mundo, et permanentiae et fixionis rerum" (II *De Caelo*, lect.18, n.6 [Leonine ed., 3:193]).

- liv "Nec potest dici, quod materiae prout est sub forma caeli, tota potentia terminetur, ita quod nihil remaneat in eadem potentia ad aliam formam; non enim terminatur potentia nisi per adeptionem formae, ad quam erat in potentia; unde, cum materia prima secundum se considerata sit in potentia ad omnes formas naturales, non poterit tota ejus potentia terminari nisi per adeptionem omnium formarum. Non enim una forma recepta in materia (etiam si sit nobilior et magis perfecta) tollit potentiam ad formam aliam minus nobilem; materia enim sub forma ignis existens, adhuc remanet in potentia ad formam terrae. Unde etsi forma caeli sit nobilissima, nihilominus tamen, recepta in materia prima, non terminabit totam potentiam ejus, nisi simul cum ipsa recipiantur omnes aliae formae; quod est impossibile" (II *Sent.*, d. 12, q. 1, a. 1 [Mandonnet, ed., 302]).
- "Et praeterea si poneretur quod forma caeli per suam perfectionem, totam materiae potentiam terminaret, adhuc oporteret quod materia stans sub forma elementari, esset in potentia ad formam caeli, et reduceretur in actum per actionem virtutis caelestis; et ita caelum esset generabile et corruptibile" (II *Sent.*, d. 12, q. 1, a. 1 [Mandonnet, ed., 302-303]).
- lvi As Aquinas says in the body of the same article, "Nulla autem potentia passiva invenitur in natura cui non respondeat aliqua potentia activa, potens eam in actu reducere; alias talis potentia frustra esset" (II *Sent.*, d. 12, q. 1, a.1 [Mandonnet, ed., 302]).
- lvii "Primo quidem, quia existimavit quod nisi substantiae spirituales essent compositae ex materia et forma, nulla posset inter eas esse diversitas. Si enim non sunt compositae ex materia et forma: aut sunt materia tantum, aut sunt forma tantum. Si sunt materia tantum, non potest esse quod sint multae substantiae spirituales, quia materia est una de se et diversificatur per formas" (*De sub. separ.*, c.5 [Leonine ed., 40:48]).
- lviii A little earlier in *De sub. separ.*, Aquinas had written, "[I]f it is of matter's definition to be in potentiality, it is necessary that prime matter in altogether in potentiality" (*De sub. separ.*, c.6 [Leonine, ed., 40:50]).
- lix "Neque enim oportet quod ea quae sunt materiae tantum, sint absque diversitate; neque etiam hoc oportet de substantiis quae sunt formae tantum. Dictum est enim, quod quia materia secundum id quod est, est in potentia ens, necesse est ut secundum potentiae diversitatem sint diversae materiae. Nec aliud dicimus materiae substantiam quam ipsam potentiam quae est in genere substantiae. Nam genus substantiae, sicut et alia genera, dividitur per potentiam et actum: et secundum hoc nihil prohibet aliquas substantias quae sunt in potentia tantum, esse diversas, secundum quod ad diversa genera actuum ordinantur: per quem modum caelestium corporum materia a materia elementorum distinguitur. Nam materia caelestium corporum est in potentia ad actum perfectum, idest ad formam quae complet totam potentialitatem materiae, ut iam non remaneat potentia ad alias formas. Materia autem elementorum est in potentia ad formam incompletam, quae totam potentiam materiae terminare non potest" (*De sub. separ.*, c.8 [Leonine ed., 40:53]).
- <sup>lx</sup> Torrell dates the *De Caelo* commentary to 1272-73 and *De substantiis separatis* to no earlier than the second half of 1271 (Torrell, *Saint Thomas Aquinas*, 344; 350).
- lxi "Unde illa forma sic perficit illam materiam, quod nullo modo in ea remanet potentia ad esse, sed ad ubi tantum, ut Aristoteles dicit. Et sic non est eadem materia corporis caelestis et elementorum, nisi secundum analogiam, secundum quod conveniunt in ratione potentiae" (*STh* I, q.66, a.2 [Leonine ed., 5:157]). Similarly, in his commentary on II *Sent.*, Aquinas says that since there is no more basic matter underlying celestial matter and prime matter, between them "remains a commonality of matter only according to analogy" (II *Sent.*, d. 12, q. 1, a. 1, ad 5 [Mandonnet, ed., 304]).
- lxii "Nam genus substantiae, sicut et alia genera, dividitur per potentiam et actum: et secundum hoc nihil prohibet aliquas substantias quae sunt in potentia tantum, esse diversas, secundum quod ad diversa genera actuum ordinantur" (*De sub. separ.*, c.8 [Leonine ed., 40:53]).
- lxiii "[E]ns in potentia est diversum ex hoc ipso quod ordinatur ad diversum actum...Unde ex hoc ipso materia caelestis corporis est alia a materia elementi, quia non est in potentia ad formam elementi" (*STh* I, q.66, a.2, ad 4 [Leonine ed., 5:157]).
- lxiv Baldner, "Thomas Aquinas on Celestial Matter," 466 (emphasis in original).
- lxv For discussion of the many passages in which Aquinas characterizes prime matter in these terms, see Wippel, *The Metaphysical Thought of Thomas Aquinas*, 312-327.
- lxvi I thank an anonymous referee of *The Thomist* for raising this important question. According to the same referee, if prime matter is "pure" in sense (2), then only terrestrial matter, but not celestial matter, counts as prime matter. As I explain in §4, however, Aquinas denies that a terrestrial body's prime matter is in potentiality to celestial forms. If it were, then celestial bodies would be generable. If celestial bodies are generable, they are also corruptible. Since *ex hypothesi* all celestial bodies are incorruptible, no terrestrial body's prime matter is in potentiality to a celestial form. Thus, if prime matter is "pure" in the sense of being in potentiality to any substantial form whatsoever, then not even

terrestrial matter is prime matter. Therefore, on my reading of Aquinas, prime matter – whether of a celestial body or of a terrestrial body – is "pure" only in the sense of completely lacking any substantial form. lxvii David S. Oderberg, *Real Essentialism* (New York: Routledge, 2007), 72 (emphasis in original).

lxviii Recall that Baldner says, "It seems to me that if prime matter is understood not as pure potency but as some sort of restricted potency, then it is no longer prime matter, but it is matter that has some formal determination" ("Thomas Aquinas on Celestial Matter," 466).