A TREATISE BY THE PHILOSOPHER AVERROES
CONCERNING THE SUBSTANCE OF THE [CELESTIAL] SPHERE

CHAPTER ONE

In this treatise we intend to investigate concerning the nature of the things of which the celestial body \footnote{The line numbers in the outer margins refer to the Hebrew text.} is composed. That the celestial body \footnote{This title recurs, modified in the Hebrew to הרברל, at the end of the first chapter of the work (Hebrew text, line 198). The underlying Arabic was probably كلام على السحر الالفك or_material_de_substantia_orbis. This title does not precisely correspond to any of the three titles mentioned in the Escorial list of Averroes' works. Cf. my article, "The Composition and Transmission of Averroes' Ma'amor be-Esem ha-Galgal." Studies and Essays in Honor of Abraham A. Neuman (Philadelphia, 1962), p. 303, n. 2.} is composed. That the celestial body

\footnote{The term מזגאת, or_bis, is used here to refer to the celestial region in its totality, not to any of the celestial spheres taken singly. This use of the term מזגאת is based on the Greek υπωκων ("heavens") taken in the first two of three meanings which this term, according to Aristotle, may have. The term υπωκων, explains Aristotle, may refer to: (1) the heavens, the sphere of the fixed stars, the fixed spheres, the sphere of the sphere, the outermost sphere; (2) the sphere of the sphere, the outermost sphere; (3) the sphere of the sphere, the outermost sphere. Cf. De Caelo I, 9, 273b, 9-21. The subject of this treatise is, thus, the nature and properties of the celestial element, taken as an element different from the four sublunar elements.}
De Substantia Orbis

is composed of two natures in the same manner as are the transient bodies has already been demonstrated except that in the case of the latter bodies it is clear that these two natures exist on account of the existence of generation and corruption in them, while in the case of the celestial bodies it is evident that they exist on account of the existence of locomotion in them. The proof thereof is as follows: It has been shown concerning the celestial bodies that they have locomotion in virtue of themselves. Now, it is obvious in the case of something moved in virtue of itself that it is composed of two natures, one undergoing motion and the other producing it, for clearly everything moved has a mover, and something cannot be mover and moved in the same respect. Thus it is clear that the celestial bodies are composed of two natures.

Therefore we want to investigate in this treatise concerning these two natures of which the celestial body is composed whether they are like the two natures of which the transient bodies are composed, one of which is called “form,” the other “matter.” That is to say, we want to investigate whether matter and form here below are the same in species with matter and form up above, or whether they differ in species, or whether they differ according to more and less? Now, if the celestial and terrestrial natures differ in species, then the term “corporeity” is predicated of

Chapter One

Having established that the celestial body is composed of matter and form, Averroes now inquires how these two terms are predicated of the celestial and terrestrial bodies. He suggests three possibilities, i.e., that the celestial and terrestrial matter and form are: (1) the same in species (in rebus, cœdam), or (2) different in species (in rebus diversae specie), or (3) different according to more and less (in rebus diversae secundum magis et minus). This threefold distinction reflects the medieval theory of predication according to which terms may be predicated “univocally,” “equivocally” or “ambiguously” — predication “according to more and less” being one of the types of “ambiguously” predication. Cf. H. A. Wolfson, “The Ambiguous Terms in Aristotle, Arabic Philosophy, and Maimonides,” *Harvard Theological Review*, XXXI (1938), 157-173, especially p. 157, line 3-p. 158, line 17, and p. 166, line 32-p. 167, line 20; reprinted in Harry A. Wolfson, *Studies in the History of Philosophy and Religion*, ed. I. Tversky and G. H. Williams, I (Cambridge, Mass., 1973), pp. 455-477.

Though Averroes in the present passage deviates somewhat from the customary terminology, he seems to inquire whether the terms “matter” and “form” are predicated of celestial and terrestrial bodies “univocally” (the same in species”), “equivocally” (“different in species”) or “ambiguously” (according to more and less”). Averroes’ answer to this question does not emerge clearly from the present discussion, but he seems to hold that “matter” and “form” are predicated of celestial and terrestrial bodies according to equivocation. Cf. below, n. 12, and Hebrew text, chap. 5, lines 3-5; also chap. 2, lines 47-51; chap. 3, lines 100-104; and chap. 6, lines 12-15. However, in chap. 2, lines 106-116, he seems to imply that the two terms are predicated according to priority and posteriority. Cf. n. 60 to that chapter.

The term corp us, cor por et us, “corporeity,” “corporate,” “corporeal form,” applies to the first form belonging to prime matter. In medieval Arabic and Jewish philosophy three views were held concerning the nature of this corporeal form. Avicenna was of the opinion that the corporeal form is identical with the predisposition for receiving corporeal dimensions, but not with the dimensions themselves. Alghazi agreed with Avicenna that the corporeal form is not identical with the dimensions, but he identified it with cohesion. Averroes, disagreeing with both, maintained that the corporeal form is identical with the indeterminate three dimensions. Cf. H. A. Wolfson, *Crescas’ Critique of Aristotle* (Cambridge, Mass., 1929), p. 578, n. 16, b, and pp. 579-590, n. 18, and my essay “Aristotle’s ‘First Matter’ and Avicenna’s and Averroes’ Corporeal Form,” *Harry A. Wolfson Jubilee Volume* (Jerusalem, 1965), English Section, I, pp. 385-406. In the *De Substantia Orbis* Averroes discusses only his own view and that of Avicenna, defending the former and criticizing the latter.
them either according to equivocation or according to a sort of priority and posteriority.\textsuperscript{8}

That, however, these two natures existing in these respective bodies do not agree in species becomes self-evident once it has been laid down that the celestial body is neither generated nor corruptible,\textsuperscript{9} whereas the bodies with us here below are generated and corruptible,\textsuperscript{10} for it is impossible that the causes\textsuperscript{11} of the transient and of the eternal should be the same in species.\textsuperscript{12} This being the case, it only remains for us to

8 Since the celestial and terrestrial substances are bodies, they must both possess the form “corporeity.” But if matter and form in the celestial and terrestrial bodies differ in species, then the term “corporeity” must be predicated either “according to equivocation” (equivocatus, equivocale) or “according to a kind of priority and posteriority” (prisci et posterius).


Averroes does not answer this question in the present chapter, but his answer seems to be that the term “corporeity” is predicated of celestial and terrestrial bodies according to equivocation. Cf. Hebrew text, chap. 3, lines 100-104. However, in chap. 2, lines 129-133 (cf. also below, chap. 2, n. 66) he holds that the term “corporeity” is predicated of the two kinds of bodies according to priority and posteriority.

9 Cf. De Caelo I, 3, 270a, 12-22.


11 οὐσία, causae. Matter and form, which above (lines 2-21) were spoken of as “natures” (ὕσσωμες, naturae) are called “causes” (οὐσίαι, causae) in the present passage.

Aristotle already uses the terms “nature” and “cause” interchangeably. He refers to matter and form as “nature” (φύσις) in such passages as Physics II, 1, 193a, 28-31; 2, 194a, 12-13; 8, 199a, 30-32, while he calls them “causes” (αἴρετα) in such passages as Physics II, 3, 194b, 23-29; Metaphysics V, 2, 1013a, 24-29.

12 The proposition that transient and eternal substances are not the same in genus (our text only reads “the same in species”) is based on Aristotle’s statement that the perishable and the imperishable must be different in kind. Cf. Metaphysics X, 10, 1058b, 26-1059a, 10; cf. also, De Caelo III, 7, 306a, 9-11, and Metaphysics III, 4, 1000a, 5-1001a, 3. In Metaphysics X Aristotle writes: ‘Εκ τοῦ ἀνωτέρου, τὸ τέλος τοῦ ζητεῖν τὸ θερμόν καὶ τὸ ἀκόλουθον ἐννοεῖ (στήριγμα γὰρ ἀδύναμος διαρρήματος), ἀνάγκη τοῦ καταλήπτων τῆς γένους τῶν ψυχῶν καὶ τοῦ ἀκόλουθου, “Since contraries are other in form and the perishable and the imperishable are contraries (for privation is a definite incapacity), the perishable and the imperishable must be different in kind.” This passage from the Metaphysics presents difficulties of interpretation since, according to the trend of the argument, the phrase ζητεῖν τῆς γένους cannot be

investigate in what respect those two natures that are in the celestial body differ from the two natures that are in the transient body.

Averroes in his commentary on this passage from the Metaphysics tries to make explicit the difference between perishable and imperishable things. He comes to the conclusion that they differ not only in species but also in genus. The text of our passage on which Averroes commented reads: “If it is possible for a man of the body and the soul who do not shun a thing of this nature that they do not do anything...and inasmuch as contraries are other in form and the perishable and that which is imperishable are contraries, it is even more necessary that the perishable and that which is imperishable do not belong to one genus inasmuch as [the imperishable possesses] a privation which is distinguished by having no potentiality at all” (Long Commentary on the Metaphysics X, 1, 26; Arabic: p. 1383, line 14-p. 1384, line 3; Latin: Vol. VIII, 275v, M-276r, A). It appears that the Latin translator from the Arabic had difficulties with this passage.

In the section of his Commentary dealing with this passage Averroes distinguishes between two kinds of contraries: those belonging to the same genus and those differing in genus. Contraries of the first kind are described as two different potentialities such that each contrary has a potentiality for the other. Contraries of the second kind are such that one of them possesses a certain potentiality while the other completely lacks this potentiality. Perishable and imperishable things are contraries of the second kind, for that which is perishable possesses a potentiality for being destroyed while the imperishable lacks any such potentiality. Cf. Long Commentary on the Metaphysics X, com. 26; Arabic: p. 1386, line 9-p. 1387, line 8; Latin: Vol. VIII, 276r, F-276v, E. Note that the Arabic version has a fuller text.

The second Latin translation of Aristotle’s text reads: “...cum vero contraria specie diversa sint, corruptibile autem et incorruptibile contraria sunt (prativio namque determinatae impotentiam) recessae est diversum generis esse corruptibile et incorruptibile...” (Vol. VIII, 275v, H-1).

The phrase στήριγμα γὰρ ἀδύναμος διαρρήματος is used in the Greek text to show that perishable and imperishable things may be considered as contraries, while its Arabic equivalent, من عدم فصل، “from perishable and imperishable,” as interpreted by Averroes, shows what kind of contrariety exists between perishable and imperishable things.

The editor of text ψ perhaps basing himself on the discussion in the Long Commentary on the Metaphysics, adds a paragraph to the text stating that the celestial and terrestrial natures differ not only in species but also in genus. This
The starting point of the investigation is what we have gathered from Aristotle concerning these matters. For concerning things existent in nature no opinion has reached us from the ancients that is truer than his, or less subject to doubts, or presented in better order. Therefore we take his opinion to be that human opinion which man may attain by nature, that is, it is the most advanced of those opinions which man, in so far as he is man, may by his own knowledge and intellect attain. Thus, as Alexander put it, “Aristotle is the one on whom we are to rely in the sciences.” We shall begin by recalling Aristotle’s opinion as it reads: “Excitatum est ergo has duas naturas, ex quibus componitur caelestis, non esse eiusdem speciei, neque eiusdem generis cum duabus naturis, ex quibus componitur generabilia.”

For the suggestion that the following passage (Hebrew text, lines 22-29), which among the Latin texts is only found in 9, was added to this text from the Hebrew version, cf. Stein Schneider, Die Hebräischen Übersetzungen (Berlin 1893; reprint, Graz, 1956), p. 183, lines 1-2.

The preceding passage seems to parallel one quoted by Maimonides—also in the name of Alexander (of Aphrodisias)—in Guide of the Perplexed, II, 3. Maimonides writes: “Know that though the opinions held by Aristotle regarding the causes of the motion of the spheres—from which opinions he deduced the existence of separate intelligents—are simply assertions for which no demonstration has been made (העבון שלא עניב יתדות מות), yet they are, of all the opinions put forward on this subject, those that are exposed to the smallest number of doubts (העבון שלא עניב יתדות מות) and those that are the most suitable for being put in coherent order (העבון שלא עניב יתדות מות), just as Alexander says in The Principles of the All.” For a discussion of this Maimonidean passage and its background in Alexander’s work, cf. S. Pines, “Translator’s Introduction,” Guide of the Perplexed (Chicago, 1963), pp. 167-170. A translation of the relevant passage from Alexander’s work is found on p. 169. One of the two extant Arabic versions of “The Principles of the All” (“Fi Mabadi’ al-Kull”) has been published by A. Badawi, in: Αριστοτέλης ο Μετανόης, ο Καίτις (Cairo, 1947), pp. 253-277.

Narboni comments on our passage as follows (167r, 1-2):

The text of this phrase is difficult. I took it in the sense of “divine body” but the context of the passage seems to be “divine body” as a whole. The current paragraph (Hebrew text, lines 22-29), of which the present phrase forms a part, appears in the Latin versions only in text 7. In this text, the passage...
And we say that when Aristotle observed that each one of the individuals existing in virtue of themselves here below, called substances, passes from one descriptive predicate to another, he found that this change takes place according to two kinds. One kind is a change in descriptive predicates existing apart from the essences of the substances existing in virtue of themselves. This kind does not require a reads: “postea reverta de eis ad compositionem naturae similis ipsis, in corporibus caelestibus.” Its meaning seems to be: “then I shall turn from these matters (that is, the form and matter of terrestrial bodies) to the composition of a nature [form and matter] existing in the celestial bodies which is similar to these [the terrestrial form and matter].” The paragraph was probably translated into Latin from the Hebrew version.

Aristotle differentiates between two kinds of “coming-to-be,” namely, substantial and accidental. This distinction is developed by him as follows: (1) There are καὶ τῶν μὲν αὐτὸς γίγνεσθαι ἄλλα τάκες τὰ γίγνεσθαι, “things which are said to become such and such”; and (b) there are δὲ γίγνεσθαι, “things which are said to become in an absolute sense.” (2) The former kind of change occurs τῶν οὖσών μονών, “in only respect to substances”; (b) the latter kind of change occurs in respect to quantity, quality, relation, time and place (Aristotle mentions only five accidents, but it is clear that he has all of them in mind). Cf. Physics I, 7, 190a, 31-190b, 1 (cf. Averroes, Long Commentary on Physics I, t. 62, Vol. IV, 37r, B-E, and com. 62, Vol. IV, 37r, E).

Aristotle does not distinguish between substantial and accidental change in terms of a change in “name and definition,” but Averroes writes: “... Et haec duae transmutationes, s. quae est in accidentibus rei et quae est in substantia, conveniunt in hac, quod sunt alteri eiusdem rei de una qualitate in aliis, et de una dispositione in aliis. Sed quia viderunt quod quoniam res transmutatur in quibusdam ipsis dispositionibus, statim nomen et definitio eius transmutatur, et in quibusdam non, vocaverunt primum modum mutationem in substantiam et alterationem substantialem, et vocaverunt istas dispositiones dispositiones substantiales. Secundam vero transmutationem, in qua neque nomen rei nec eius definitio transmutatur, vocaverunt alterationem accidentalem, ...” And these two kinds of change, that is in the accidents of something and that in the substance of something, agree in this, namely, that they are the transformation of that thing from one quality into another and from one disposition into another. But inasmuch as they [the Aristotelian philosophers] saw that something may undergo a change in some of these dispositions such that its name and definition are changed and in some of these dispositions such that its name and definition are not changed, they called the first kind of change, change in substance and substantial change, and they called these dispositions, substantial dispositions. But the second kind of change, and that is the one in which neither the name nor the definition of the things is changed, they called accidental change” (Long Commentary on Physics I, com. 63, Vol. IV, 37v, M-38r, A).

Chapter One

change in the individuals underlying, as subjects, these descriptive predicates, neither in the term by which they are called nor in their definition. Examples of such descriptive predicates are those called qualities, quantities and the other categories called accidents. The other kind is a change in descriptive predicates such that it demands a change in the individuals underlying, as subjects, these predicates, both with respect to the terms by which they are called and with respect to the definition by which their essence is indicated. This latter kind of change is called generation and corruption.

When Aristotle reflected on these two kinds of change he found in each one of them things that are common to both and things that are peculiar to each. Concerning the common things 19 that he found in both kinds of change, he noticed that they both have a subject that is the recipient of the change, inasmuch as change and motion would be impossible for them without a subject. 20 He also discovered that in both kinds of change the precedence of non-existence is a requisite for the existence of that which comes to be, for only that which does not exist can come to

17 Greek text editing: This phrase, absent from all the Latin texts, is an almost literal translation of Aristotle's saying that ἔστι δὴ τοῦ μὲν λόγου οὐ τί τι ἔσεσθαι νομιμάζω, “a definition is a statement signifying [literally: pointing to] a thing's essence” (Topics I, 5, 101b, 39). Cf. Averroes' Short Commentary on Topics (ed. Butterworth), Arabic: p. 161, lines 1-2; English: p. 52, lines 31-33. Aristotle gives a similar account of "definition" in his discussion of the term “substance.” He writes: ἕστι τὰ τί ἐστιν ὁ δὲ λόγος ὁ ὀρθός καὶ τοῦτο ὁ πάντως λέγεται ἔννοια, “The essence, the formula of which is a definition, is also called the substance of each thing" (Metaphysics V, 8, 1014b, 21-22). Averroes' text of this passage reads: ἔστι τὰ τί ἐστιν ὁ δὲ λόγος ὁ ὀρθός καὶ τοῦτο ὁ πάντως λέγεται ἔννοια, “Et etiam dicitur substantia illud, quod significat quid in omnibus rebus, et definitionem earum, et hoc est substantia cuisiuis rei” (Long Commentary on Metaphysics V, t. 15, Arabic: p. 564, lines 3-4; Latin: Vol. VIII, 118r, B, and (ed. Ponzalli) p. 134, lines 12-13).

18 This Greek text editing: The Latin texts state explicitly that there are five factors common to substantial and accidental change (“communia quidem sunt quinque quaes insum transmutationi substantiali et accidentalis”). According to the discussion that follows, these common factors are: (1) the subject which undergoes the change; (2) the privation of that which comes to be; (3) the potentiality for that which comes to be; (4) that which passes away and that which comes to be are contraries; and (5) these contraries must belong to the same genus.

19 Greek text editing: Cf. Physics I, 7, 190a, 13-190b, 10. 20 Greek text editing:
be. Furthermore, the prior existence of a possibility in the subject is a requisite for the existence of each of the two kinds of change, inasmuch as that which is impossible cannot come to be. He also found among the requisites of these two kinds of change that that from which the change proceeds and that toward which it goes are either contraries or that which is between contraries. And these contraries belong to the same genus and are reducible to the primary contraries, namely, privation and form.

But concerning those things in which the two kinds of change differ, he found that the change that individuals undergo with respect to their substances requires that the subject: should not be something existing in

Narboni, giving two examples—one of accidental and one of substantial change—comments (167v, 1): “A verroes means to say: for example, when white changes to black or to an intermediate color, or when the privation of the form of fire changes to fire.” Jandunus writes (34b, A): “...and it is necessary, therefore, that change takes place from one contrary to another contrary. But these contraries can be either perfect (perfecta) contraries or imperfect ones (non perfecta). Perfect contraries are those which are farthest apart (maxime distant) such as white and black, sweet and bitter and such extremes among which change occurs. Imperfect contraries are those which have some kind of contrariety (aliquid contrariorum), such as an intermediate with an extreme.”

That contraries belong to the same genus is shown by Aristotle in *Metaphysics* X, 4, 1055a, 3-10; X, 8, 1058a, 9-13. That intermediates are in the same genus as their contraries (cf. previous note) is shown by him in *Metaphysics* X, 7, 1057a, 18-30.

That the first contraries are στερηματα, “privation,” and εδοχος, “form,” is shown by Aristotle in *Metaphysics* XII, 2, 1069b, 32-34; XII, 4, 1070b, 18-21. All particular contraries, as white and black for example, are subsumed under this general classification. Other pairs of terms applied to the first contraries are: ἄνω, “being,” and μη ἄνω, “non-being” (*Metaphysics* IV, 2, 1004b, 27-28), and στερηματα, “privation,” and ζωος, “positive state” (*Metaphysics* X, 4, 1055a, 33-38).

Jandunus, using a mixture of the Aristotelian terminology, comments (34b, A): “...and...this contrary can be reduced to a primary contrariety which is non-being (non esse), i.e., privation (privatio), and positive state (habitus).” The argument of the present passage, according to Jandunus, proceeds as follows (34b, C-D); if we assume that the subject possesses a substantial form in virtue of which it is a subject and if we imagine that it also possesses a second substantial form in virtue of which it is a particular substance—other than a subject—for example, the form of the element earth, air, etc., then two possible alternatives follow: (1) the substantial form in virtue of which it is a subject must be destroyed and give way to the new substantial form, earth for example, or (2) two substantial forms are present in actuality in the subject. The former alternative is absurd because it implies that something can come to be from nothing, the latter because a substantial form determines a thing uniquely. Thus, it follows that something cannot have more than one substantial form in actuality.
subject]. Therefore, prime matter has no proper form nor does it have a nature existing in actuality, but its essence is to be only potential. It is for this reason that it can receive all forms.

But the difference that there is between the potentiality through which this subject becomes a substance and between the nature of the subject that becomes a substance through this potentiality consists in this, namely, that the term potentiality is predicated only in relation to form

Averroes states this as follows: "...et accidit substantiae eius, ut sit in potentia omnes formae; non quod potentia eius est in substantia, ita quod sit pars definitionis..." "...and it belongs to the substance of matter, that it is potentially all forms. However, potentiality is not 'in' the substance in such a manner that it would be a part of a definition..." (Long Commentary on Physics 3, com. 70, Vol. IV, 41r, E).

Jandunus, aware of this point, comments that "potentiality is as (quasi) the substantial difference of the subject."

Averroes has the following in mind: being is divided into "potentiality" and "actuality." Cf. Metaphysics V, 7, 1017a, 45-1017b, 9: 1X. 1. It has been shown in the preceding passage that prime matter is something existing in actuality. Therefore, it must be something existing in potentiality.

The text of the present passage, which is corrupt in the Hebrew manuscripts, was reconstructed from the Latin text and from a parallel passage in the Long Commentary on Physics (1, com. 70, Vol. IV, 41r, E-F). In these two passages Averroes shows that a distinction must be made between the nature of prime matter, potentiality, and prime matter considered as a subject in the category of substance.

In the Long Commentary on Physics Averroes presents two arguments in support of the latter proposition: if prime matter were identical with potentiality, its nature, then (1) prime matter would be destroyed when a given potentiality is actualized: and (2) prime matter would only be in the category of relation, while, in truth, it must also be in the category of substance. The argument of the present passage is identical with the second of these arguments. Averroes' text in the Long Commentary on Physics reads: "D. d. et quid est subjectum, i. e. modus essentiae eius est, quod non est demonstratum in actu, sed est quasi medium inter non esse simpliciter et esse in actu. Et accidit substantiae eius ut sit in potentia omnes formae: non quod potentia eius est in substantia, ita quod sit pars definitionis, quoniam, si potentia esset in substantia eius, tunc esse eius destrueretur ablatione potentiae et praesentiae formae in actu, s. formae, ad quam habebat potentiam ut recipiatur: et universaliter, si potentia esset in substantia eius, tunc substantia eius corumpeteretur apud generationem, et esset in praedicamento ad aliquid non in praedicamento substantiae. Ex his igitur patet quod istud subjectum est substantia non potentia, neque privatio: pars enim substantiae est substantia...."
When Aristotle observed\textsuperscript{38} that the substantial forms\textsuperscript{37} are divisible in virtue of the divisibility of this subject — and divisibility belongs to this subject only insofar as it possesses quantity — he understood that the three dimensions,\textsuperscript{38} called "body," are the first thing existing in this subject. And when he found that all forms have these three dimensions in common, while each form is distinguished by having a determinate

32 Text \textit{p} has the additional phrase: "hoc autem subiectum est elementum unum aeternum existentium per se;" "but this subject is an eternal element of those things which exist by themselves." In texts \textit{q}, \textit{r}, this addition reads: "et elementum unum aeternum existentium per se." In text \textit{s}, as in the Hebrew versions, the additional phrase is lacking.

33 \textit{לְּךֻלִּים}. Literally: "And therefore." Averroes now returns to his earlier discussion that to be potential is the nature of prime matter.

34 יודע. This Hebrew term can refer to either conception by the intellect or conception by the imagination. The Latin \textit{intelligere vel imaginar}i takes the term in both of these senses. However, the interpretation \textit{intelligere} seems to be preferable, since "matter" is an object of conception by the intellect rather than by conception by the imagination. Cf. the following note, and Wolfson, \textit{Crescas}, p. 519, n. 21.

35 Aristotle writes (\textit{Physics}, I, 7, 191a, 7-12): \textit{δὴ τοποθετημένη φύσις ἐπιστήμη καὶ ἀναλογίας, "The underlying nature is an object of scientific knowledge by an analogy." "For as the bronze is to the statue, the wood to the bed, or the matter and the formless before receiving form to anything that has form, so is the underlying nature to substance, that is, the 'this' or existent." For a comment on the text of this passage, cf. W. D. Ross, \textit{Aristotle's Physics} (Oxford, 1936), text and p. 494, on 191a, 10.

Averroes comments on this passage: "Et etsi natura quae est subiecta substantiae non potest intelligi per se, cum non sit alicubi in actum habens quiditatem, sed intelligitur secundum comparationem propter latentiam sua substantiae. Ete ideo, cum voluerimus dare substantiam eius, dicimus ipsam esse illud cuius proportio ad substantiam est sicut proportio cupri ad idolum aut ligni ad scamnum." "And this nature that is the underlying subject of substance [that is, prime matter] cannot be conceived by the intellect [as it is] in itself, for it is not something in actuality having an essence. But it is to be understood by means of a comparison in accordance with the latency [potentiality] of its substance. Thus if we want to give the essence of prime matter we say that prime matter is that, the relation of which to substance is the relation of copper to the statue and wood to the bench" (\textit{Long Commentary on Physics} I, com. 69, Vol. IV, 40v, 1-5).

Narboni comments that it is difficult to conceive prime matter since it lacks a nature proper to it (בֹּרֶרֶךְ נַעֲשֶׂךָ מַעְלָה), i.e., a form existing in actuality (168r, 1). Since knowledge can only be of something actual, prime matter can be known only through an analogy: as a particular matter (wood) is to a particular form (box), so is prime matter to all forms. The difference between the parts of the analogy is that when the particular matter (wood) loses its form (box), the matter still has a form of its own, while, when prime matter loses its form, no other substantial form remains.

36 The analysis of the composition of natural bodies, that is, the four elements, shows that "divisibility" is the ultimate common property of these bodies. Now, bodies are divisible in virtue of possessing "indeterminate three-dimensionality" (איננטדרמאית תרייה מילוי). This "indeterminate three-dimensionality" is the "form" of prime matter.

"Determine quantity" (ино我不想), like any other accident, belongs to a body only after the body has acquired a substantial form. Analytically speaking, then, prime matter, according to Averroes, receives quantity and form in the following order: first, the "indeterminate three dimensions," then the substantial form, and, finally, the determine dimensions that accompany the substantial form. This order contains an implicit disagreement with Avicenna who maintains that no quantity of any kind can belong to matter until matter possesses a substantial form. Thus, Avicenna's order is: corporeal form (which is different from indeterminate three-dimensionality), substantial form, dimensionality. Cf. above, n. 7.

37 Averroes distinguishes between two forms of an element: (1) the substantial form (רוחָאמה עָטָם) or specific form (רַוִּיֵה מִיָּיתָה); and (2) the corporeal form (רַותִיֵה יָמָה). According to Narboni (168v, 2), these two forms are distinguished as follows: רוחָאמה עָטָם הוא המידה הרצויה של דברים; רַוִּיֵה מִיָּיתָה הוא המידה של הדברים. ארבעה רוחָאמה עָטָם נמצאות, "the term 'substantial forms' refers to the 'specific forms' as, for example, the form 'fire' and the form 'air.' Now, in virtue of the 'corporeal form' something is a body, while in virtue of the 'specific form' it is a definite body, for in virtue of the specific form it becomes a substance."

38 I.e., the indeterminate three dimensions.
quantity of them, he knew that the indeterminate dimensions become determinate and the ultimate dimensions in actuality only after the substantial forms become inherent in the subject, the case being the same as that of the other accidents which exist in actuality. For Aristotle also observed that the respective subjects of all accidents are individual substances existing in actuality, namely, they are those actual individual substances concerning whose nature it is clear that they are composed of forms and of a subject existing in potentiality.

From the fact that the subject receives transitory accidents Aristotle also adduced proof that the subject is not a simple thing, for if it were

39 The form of each of the four elements, earth, water, air, and fire, is accompanied by a definite quantity of dimensions. However, for any given element, this quantity of dimension has a range delimited by a maximum and a minimum. Cf. below, n. 43.

Jandunus comments (35a, A): “Notandum, .... quod sicut unaqueque forma habet qualitates determinatas, ita habet quantitatem determinatam ad minimum et ad maximum ....” “It is to be noted, .... that just as every form has determinate qualities, so does it have a quantity determined toward a minimum and toward a maximum.”

In stating that the dimensions of each substantial form are determined toward a maximum and minimum, Averroes has the following in mind: let it be assumed that a given substantial form (air, for example) inheres in a certain part of prime matter. Now when this element (air) composed of the substantial form and prime matter is heated, its dimensions begin to expand. But the element retains the same substantial form. Therefore, the elements and their underlying matter can undergo an increase and a decrease in their dimensions without there being added to them something from the outside or without there being something taken away from them, that is, the elements and their matter are elastic.

The source of this discussion appears to be Physics IV, 9, 217a, 26-33, where Aristotle writes: “The same matter also serves for both a large and a small body. This is evident: for when air is produced from water, the same matter has become something different, not by acquiring an addition to it, but it has become actually what it was potentially, and, again, water is produced from air in the same way, the change being sometimes from smallness to greatness, and sometimes from greatness to smallness. Similarly, therefore, if air that is large in extent comes to have a smaller volume, or becomes greater from being smaller, it is the matter that is potentially both that comes to be each of the two.” For a parallel discussion, cf. De Generatione et Corruptione, 1, 5, 321a, 9-13, and Averroes, Middle Commentary on De Generatione et Corruptione I, Part V, chap. 2, Hebrew (ed. S. Kurland): p. 25, line 76-p. 26, line 79; English (trans. Kurland): p. 31, lines 16-24, and p. 162, n. 18; Latin (ed. F. H. Fobes): p. 44, lines 1-7.

40 Cf. Hebrew text, lines 48-50. The argument of this passage shows that prime matter cannot be simple in actuality, but that it must always possess a substantial form. Jandunus (35a, C) takes it to be a continuation of the preceding discussion that the determinate dimensions are subsequent to the substantial form. For, since the subject receives changing accidents, it cannot be simple, but must be composed of matter and a substantial form. Thus, the substantial form is prior to any accident.

41 According to Jandunus (35b, C-D) the following passage contains two proofs that prime matter never exists without the indeterminate dimensions. For it did, he argues, then during a process of change (1) one body would cease to exist and a new body would come to be from nothing, or (2) there would exist many corporeal forms which would change into one another. The first supposition is absurd since “ex nihil nihil fit”; the second, because the assumed corporeal forms would be contraries. Corporeity, however, cannot be a contrary since contraries are active, while corporeity is passive. Cf. Toledanus, p. 77, lines 17-21.

42 The substantial forms, unlike the corporeal form, can change into one another and thus they are contraries.

43 Each of the four elements has a range of dimensions bounded by a maximum and a minimum dimension. Cf. above, n. 39.
The argument of this passage is meant to show that the substantial forms, that is, the forms of the four elements, are contraries. However, the text is difficult and there is a considerable difference between the Hebrew and the Latin versions.

According to Narboni’s interpretation of the Hebrew text (169r, 1-2) the substantial forms are contraries because they succeed one another in prime matter, and they succeed one another because: (1) two substantial forms cannot inhere simultaneously in the same quantitatively determined part of prime matter; (2) prime matter cannot simultaneously be free of the form that is destroyed and that which produces destruction; and (3) the form that comes to be must come to be through an agent that brings it from potentiality to actuality. For the details of Narboni’s argument, cf. below, nn. 45-49.

The Latin of this passage reads: “Et quia illa forma, scilicet forma dimensionis non termatiae eae esse in prima materia primitiva, et successit ibi in ea [for correction of this text, cf. below, n. 46], cum sibi impossible hoc subiectum recipiens duas eam in existentia terminatae quantitatis, ideo imposibile est unam substantiam de subiecto, vel subiectum denudari a forma, nisi per formae destructionem. Nec est etiam possibile ipsam fieri in subiecto, nisi per agens extraehens illam de potenti in actu. Unde nescesse est habere formas esse contrarias adeo, quod altera corruptum suam contrariam, et subiectum recipere formam similem.”

Commenting on this Latin text, Jandunus writes (35d, E-F): “…dicit, quod ista forma dimensionis, i.e. dimensiones interdimensiones, qua appellantur ad aliquid huius formae corporeitas, existit primo in materia prima, dimensiones autem terminatiae succedunt sibi invicem in materia, cum impossible sit formas substantiales, quae habent proprios terminos et distinctos suarum quantitatum simul existent in eadem portione materiae, ideo imposibile est una substantialia de subiecto, vel subiectum denudari a forma substantiali nisi per corruptionem formae illius…, nec etiam possibile est fieri in hoc subiecto nisi per agens extraehens illam de potenti in actu. Et ideo nescesse est formas substantiales esse contrarias, ideo quod altera corruptum alteram cui successit et agens generans unam formam corruptum alium prorsus existentem, et tunc subiectum recipit formam similem. s. ipsi agenti.” “…he [Averroes] states that this form of indeterminate dimension, that is the indeterminate dimensions, which are called by some the
successor to the one that is destroyed should be generated in the subject except through an agent which brings it from potentiality to actuality—it follows from these considerations that the substantial forms must be contraries so that each one of them at some time destroys its contrary, the result being that the subject receives a form similar to the one bringing about the destruction. This, the forms of the elements are contraries and they reside in a single subject. Therefore we say that things undergoing change are in some respect contrary and in some simultaneously from the form that ceases to exist and from the one that brings about [its] destruction, which is a contrary, this latter form being the one that takes the place of the former. For in the same instant in which prime matter strips off the form that ceases to be, in the very same instant [actually he means ‘in the very next instant’] it puts on the form that it receives. If this were not the case, either prime matter would be without form or two instants would overlap, and each of these assumptions is false."

Narboni comments (169r, 2): "יזנכה... מכל אחד מבני...'" ...
49 Narboni comments (169r, 2): "... because it is the case that for a form to cease to exist, a contrariety must be generated. Therefore, as Averroes states, when we know that something may be the recipient of something else, we have no right to infer on the basis of this knowledge that that which is received will undoubtedly come upon the recipient, but we only may decide upon the possibility of its existence, no more. But when we know that there exists the perfect agent for the production of that which is received, we have the right to decide that that which is produced by this agent must also exist."

50 Cf. Aristotle, De Generatione et Corruptione I, 4, 331a, 12-23.

51 Literally: "...and that the subject receives itself a form similar to it." Toledanus (p. 86, lines 15-16): "...et quod subiectum recipiat formam similem forme corruptentis quod est agentem," "...and the subject receives a form that is similar to the form that brings about destruction, and this [form] is the agent."

Jundinus (35d, F): "...et tunc subiectum recipiat formam similem, scilicet, ipsi agenti," "...and the subject receives a similar form, i.e., [a form] similar to the agent.

In accordance with the Latin version of this phrase ("et subiectum recipiat formam similem"), I changed the Hebrew text to: "ינפל יוספ ותנוה דוד[,] ותא מ". The Hebrew manuscripts in the best version have the reading: תְּרֵם מַהְלִיתוֹת הַבָּדַּרָם, “the result being that there is destroyed in the subject a form similar to it”.

52 According to Narboni (169r, 3), things undergoing change are similar in that they have the same underlying subject and they differ in that the form producing the change is different from the form changed. Narboni adds that the two respective forms must be the same in genus, but different in species. The change in the form of the subject, however, is not necessary for the change to be considered a change in the form. In fact, the change in the form of the subject may lead to a change in the form of the agent, which is the cause of the change."

53 Jundinus (36a, A): "...ut sunt formae caelestis," "...the heavenly forms.

54 Narboni (169r, 2), 2: "...he means to say [it has no proper form] in virtue of itself.

55 Prime matter, which has the indeterminate dimensions as its immediate form, can receive quantitative determination, that is, the determinate dimensions, in two ways: (1) if there inheres two or more of the forms of the four elements, that is to say, forms differing in species, in a given part of prime matter, then the dimensions of that part of prime matter are determined by the sum of the respective dimensions proper to each of these forms; (2) if there inheres only one of the forms of the four elements in a given part of prime matter, then the dimensions of that part of prime matter are determined by the dimensions proper to this one form. These latter dimensions, in turn, are determined in two ways: (a) according to discrete quantity, that is, according to the number of "units" of that single form that are present in a given part of prime matter; and (b) according to continuous quantity, that is, according to the position that this form has within the range of dimensions possible for it.

The phrase "אבר אבר אל בברikk[, אבר אל בברikk[" presents difficulties of interpretation, especially since in the subsequent passage (Hebrew text, lines 96-97) Averroes omits it from his enumeration of the ways in which prime matter may become quantitatively determined. As my interpretation shows, I took this phrase as referring to an earlier passage of the text in which Averroes states that the
The reason for all this, is that this subject first receives the indeterminate three dimensions that are susceptible of division, and that it is potentially many. For if the subject did not possess the indeterminate dimensions, it could not receive simultaneously, that is, in different parts of itself, either those forms that differ in number or those forms that differ in species, but there would exist in it only one form at a given time. On the other hand, if matter, despite being one in number, were not potentially many, then it would never have been denuded of that form of which it happened to be the recipient and that form would have been in the very essence of that underlying matter, so that it would be impossible that that underlying matter should be completely denuded of its form or that it should lose this form and obtain another. Inasmuch as this subject receives many forms simultaneously only in virtue of having received the three dimensions first, it is clear that if this subject were to possess only one form continuously, it would be numerically one in an absolute manner and no multiplicity could be in any way involved.

The Latin versions have et quae sit secundum matius et minus. Jandunus takes the phrase as if it were et quae sint... refers it to the preceding formas diversas. Thus he comments (36a, C): "...i.e. materia prima, quae est in potentia ad omnes formas nullam habet de se, sed est recipiens numerum secundum formas numero et specie: et secundum diversas formas secundum magis et minus, i. quod ipsa materia prima est recipiens numerum per formas diversas secundum magis perfectum et minus perfectum: cuiusmodi sunt formae simplicium et mixtorum." "...i.e., prime matter that exists in potentiality toward all forms, without having any form of its own, but it receives numerable quantity in accordance with forms differing in number and species, and in accordance with forms differing according to more and less, i.e., that this prime matter receives numerable quantity through forms that differ in that they are more and less perfect. Forms of this kind are those of simple and mixed things."

Narboni (169v, 2): "i.e., that the subject receives potentially all this enumeration, i.e., the specific and the particular."

Toledanus (p. 90, lines 13-14): "quia contraria transmutant et corruptant se..." "i.e., that the contraries transform and destroy one another..."

Jandunus (36a, D): "sicutel, quod hoc subjectum est in potentia recipiens formas diversas in numero et specie," "i.e., that this subject potentially receives the forms differing in number and species."

According to the argument that follows, Jandunus' formulation is the best.

I.e., that it potentially receives many substantial forms.

Narboni (169v, 1): "i.e., in the whole prime matter" (the same interpretation is found in Toledanus and Jandunus, ad loc.).
it at all, either potentially or actually. Furthermore, this subject would not be divisible by a form, nor would that one form which has been assumed to reside in it be divisible by the division of the subject. The reason for all these conclusions would be that the subject does not receive the indeterminate quantity prior to receiving the form. For if the subject were to receive this indeterminate quantity first, it would be divisible by the substantial form, and the substantial form, in turn, would be divisible by its division, that is to say, by the division of the subject, and the activities of this form would be finite in accordance with the finiteness of the quantity proper to it, and the form would be capable of receiving the distinction of great and small and part and whole.

Now, if there existed here below a form that does not receive the distinction of great and small and is not divisible by division of its subject and of which the subject is not divisible by division of that form — wherein by the expression “division of form” I mean the diversification of it — it is evident that the primary dimensions would not settle upon the subject belonging to this form nor would those primary dimensions exist in it until after the form has settled upon it, and when I use the term “after” I have in mind posteriority in respect to existence, not posteriority in respect to time.66 The case of the primary and those of part and whole. The opposite is the case in respect to the substance of the celestial sphere, for in it the dimensions are subsequent upon the form and they are not prior to it. Therefore Averroes continues: ‘And it is clear that if the subject were numerically one in an absolute manner and it would contain no multiplicity’ etc.”

Since, according to the argument, the substantial form inheres in the body in virtue of the indeterminate three dimensions, the substantial form will be finite in accordance with the finiteness of the body. A finite form can produce only a finite activity. Cf. Jundunus, ad loc.

The following argument is the converse of that of the preceding paragraph.

64 Toledanus comments (p. 93, lines 3-4): “... according to the nature and causality of the thing and not according to some duration.”
65 Jundunus, citing a different example for “priority according to nature,” writes (36c, G-H): “As Averroes points out in 4 De Caelo, an agent that produces change in respect to the accidents proper to this form, i.e., in respect to the quantity and quality proper to the form. These two changes are simultaneous according to time but not according to nature, for the cause is by nature simply prior to the effect, though it is not prior according to time.”
66 For the distinction between “prior according to nature” and “prior according to time,” cf. Aristotle, Categories 12; Metaphysics V, 11, 1018b, 14-19; 1019a, 1-14.

Medieval philosophers agree that the first form of matter is the “corporeal form,” but they differed concerning the nature of this form. As has been seen, Averroes’ opinion was that the indeterminate three-dimensions are identical with the corporeal form. Avicenna, whose opinion is recorded here, held that the corporeal form could not be identical with indeterminate three-dimensionality, which is an accident, but must be a form in the category of substance, which is prior to any dimensionality. Cf. above, n. 7.

Narboni describes the difference between Averroes and Avicenna as follows (169v, 2-170r, 1):

"... in accordance with my understanding, and in all the Latin texts. In its place, or in addition to it, the remaining Hebrew manuscripts have the rather awkward phrase "et intelligens secundum esse, non post secundum temporis. This reading is found in MSS ב, כ, and in all the Latin texts. In its place, or in addition to it, the remaining Hebrew manuscripts have the rather awkward phrase "et intelligens secundum esse, non post secundum temporis. According to Narboni’s interpretation this Hebrew phrase and the passage in which it occurs would have to be translated “... it is evident that the primary dimensions would not settle upon the subject belonging to this form nor would dimensions (I have in mind those dimensions whose dimensionality is temporally dimensional in its existence) exist in it until after the form has settled on it.” The phrase in parentheses is equivalent to “the determinate three dimensions.” Narboni comments (169r, 2): מדריך עתה מאזור ומפקח על תכונה הצמיחה הם ובר נ使者ה המצות ישראל ועל הגדולים המצות ישראל יאשר עדGRP המצות הם שאמשת מאזור המצות ההם. Toledanus comments (p. 93, lines 3-4): “… according to the nature and causality of the thing and not according to some duration.”

Chapter One
them: that the substantial forms would not be divisible by the division of the primary matter, that the forms would not receive the attributes of great and small, for that they would be eternal, not divisible by division of the subject, and that they would not have a contrary diverse from them in subject. Finally, if what has been assumed were true, then matter would not receive any other form apart from that one form which would be proper to it.

Aristotle gave an account of those properties that belong to generated beings in virtue of their subject and in virtue of their forms, these properties being the ones through which generation and corruption comes to these beings, that is, to the individuals which exist in virtue of themselves. He showed, in addition, that the celestial bodies are neither generated nor corruptible. As a result of this he denied that the corpse, receives many shapes while it itself always remains a body through the form ‘corporeity’, which all these shapes have in common. Thus Avicenna states that the form of body is in prime matter, and that the indeterminate dimensions are subsequent upon this common form. But in itself this corporeity is free from any particular form existing in actuality. And thus it has the power to receive the specific form that can belong to it, and its power to receive the specific forms occurs in two ways, universal and particular. It has the universal power insofar as this corporeity is considered absolutely, i.e., common to all, but it has the power in a particular sense insofar as that corporeity is determined through some attributes toward certain forms and not toward others. And thus body, insofar as it is body, has this power and the form ‘corporeity’ primarily and generally. This is Avicenna’s opinion. Cf. Avicenna, Al-Shifa, Metaphysics, II, 1, Arabic: (ed. Anawati and Zayed), p. 63, line 3-4, p. 64; Latin: (ed. 1508), 75r, 2-75v, 1. For a discussion of Avicenna’s doctrine of “corporeal form,” cf. A.M. Goichon, La Distinction de l’Essence et de l’Existence d’après Ibn Sina (Paris, 1937), pp. 425-439, especially p. 431, line 21-2 p. 432, line 6, and 6, pp. 435-436. This discussion is especially valuable for its numerous references to the sources and because it shows, in the just-mentioned note, that the textual evidence supports Averroes’ interpretation of Avicenna.

69 كعلم ما في الموضوع
70 The underlying Arabic was probably
71 The Latin reads: “et ipsam non habere contrarium sibi succedens in codem subiecto.” The meaning of the Latin is that the assumed form would have no contrary that succeeds it in the subject as a result of change. Cf. Hebrew text, lines 87-90.
73 Cf. De Caelo I, 3, 270a, 12-22.
celestial bodies possess a subject that is receptive to enumeration and division in virtue of the fact that the absolute dimensions settle upon it before the form is settled upon it, thereby also denying that the celestial bodies are many in potentiality though one in number. Furthermore, Aristotle denied regarding the forms of the celestial bodies that they are divisible by division of their subject and that their activities are finite in virtue of their own finitude, for in the case of forms divisible by the division of their subject, the potentiality of the whole is greater than the potentiality of a part.  

Inasmuch as Aristotle found that the activities of the celestial forms are infinite, he concluded that those forms do not settle upon their subject by means of the indeterminate three dimensions, that is to say, since the forms do not exist by means of the indeterminate dimensions, they are not forces in bodies. And from the difference between the force of the whole and that of a part in the case of the forms divisible in virtue of the division of their subject, he demonstrated apodictically that it is impossible that a power producing an infinite activity should exist in a finite body or that an infinite power should exist in a finite body. 

After these premises were set down by Aristotle and after he found that the celestial forces act with an infinite activity he drew the following

is also justified by the parallelism of the discussion. In the succeeding passage (Hebrew text, lines 126-127) Averroes denies that certain properties belong to the form of the celestial bodies, while in the present passage he denies certain properties of their subject, that is, their matter.

Narboni, accepting the original reading of the Hebrew manuscripts, applies the present passage to the sublunar bodies. Narboni comments (170b, 2): "אמרנו: בחלשה של מתנה שחקת, כמו שחקת שלカメל הממהמה, العراقي אמרוהו לוחם הבטוי: When Averroes says that 'it is concluded by him [Aristotle] concerning them that they have a subject receptive of enumeration,' in using the term 'subject' he has in mind the subject of those things that are generated and corruptible.”

Cf. Hebrew text, lines 132-134.

Cf. Physics VIII, 10, 266a, 24-266b, 24.

I.e., that no infinite force can be in a finite body nor a finite force in a finite body.

For the present proof only the first part of this premise is required. However, Averroes assumes an additional proposition that he does not mention explicitly, namely, that the body of the heavenly bodies is finite in extension. This is proved by Aristotle in De Caelo I, 5-7.

conclusions: the celestial forces do not inhere in a subject at all, they do not have a matter which receives them by means of the indeterminate dimensions, they do not have a matter in virtue of which they are potentially many, they are not recipients of the attributes of great and small, and they do not have a contrary. All these conclusions follow from the fact that these forms act with an infinite activity. And all this is discussed in the Physics. 

When Aristotle also investigated concerning the nature of the celestial bodies in the first book of the De Caelo, he demonstrated that they are simple, since their motion is simple,” and that their nature is a nature which is neither heavy nor light, that is, they are not ordinarily described by the terms of heaviness or lightness. Since it became clear to him that heavy and light bodies are contraries because their motions are contrary to each other and since it also became clear to him that the motions of the celestial bodies do not possess contraries or contrariety, he concluded from this that the celestial bodies are neither generated nor corruptible, and that they do not have a subject which receives the dimensions first [and then the forms], and hence that their forms are divisible by the division of their subject. This is the meaning of his statement in the first book of the De Caelo that “these celestial bodies have no contrary in their forms nor have they a subject.” In like manner, he deduced the very same thing from the fact that their motions, which proceed from principles existing in them, are infinite motions.

Inasmuch as it is apparent in regard to the celestial bodies that they

76 Only the statement "that an infinite power cannot reside in a finite body" seems to come from the Physics (cf. above, n. 74). It means that the forms of the heavenly bodies do not reside in their subject by means of the indeterminate three dimensions. The rest of the present passage follows by converse from what has been shown to be true of bodies subject to generation and corruption, that is, bodies whose forms reside in them by means of the indeterminate three dimensions.

77 Cf. De Caelo I, 2.

78 Cf. De Caelo I, 3, 269b, 18-270a, 12.

79 Cf. De Caelo I, 3, 270a, 13-22.

80 The succeeding text of the Hebrew manuscripts differs from that of the Latin versions. Both agree in denying that in the celestial body the indeterminate dimensions are prior to the celestial form. They disagree, however, concerning the manner in which the determinate dimensions come upon the matter of the celestial body. The Hebrew manuscripts maintain that the determinate three
receive dimensions, and that it is impossible for them to receive the
determinate dimensions except in virtue of their forms, and also that
they do not receive their forms by means of the indeterminate
dimensions, as is the case with the transient forms, it follows that the
celestial bodies receive the dimensions in a manner that does not require
that their forms are transient, that is, their matter receives the
dimensions by means of its forms. And the matter does not receive its
forms by means of the dimensions, that is, the indeterminate
dimensions, which exist in it potentially, the latter being the case with
those dimensions that exist in prime matter together with the form of
that matter. But the dimensions that exist in the celestial element are
one of its properties. 82
Since it became clear to Aristotle concerning the celestial bodies that
their forms settle upon their subjects in such a manner that they are not
divisible by the division of their subjects, and the reason for that is that
they do not settle upon the subjects insofar as they are divisible, it
followed that these forms do not subsist in the subject, but they are

81 Toledanus (p. 109, lines 10-11): "...non quia sint sine illa materia, sed quia
suum esse non est ab illa materia," ...not that they exist without that matter,
but that their existence is not derived from that matter.
82 Jandunus (38b, A) comments: “i.e., inasmuch as the celestial forms do not receive existence from their subject.”
83 Jandunus (38b, A) comments: “forma [i.e., causa] efficacem et finem different.”
84 That in sublunar substances the efficient and final causes are different, cf. Physics II, 3, especially 194b, 29-195a, 3; Metaphysics V, 2, especially 1013a, 29-1013b, 3.
85 Literally the following passage reads: “And similarly a form of the above
description, I mean to say, it will be moved to attain perfection through another
form, its motion therefore is finite, inasmuch as it produces motion in the
subject only while it itself is moved.”
86 According to Jandunus (38b, A) the proof proceeds as follows: “The motion of
every form that is moved by another form in order to perfect itself is necessarily
finite. The reason for this is: every form of the kind just described moves only
when it is moved by an object of desire, which is its end. Thus when it passes
(reaches) the end toward which it moves, its motion comes to a stop and that
which was moved comes to rest.”
87 According to Jandunus (38b, B) the syllogism is: “No form that inheres in its
subject moves in an infinite time. The celestial bodies, however, move through
an infinite time. Therefore, the celestial forms do not inher in their subject.”
And an opponent should not say that the forms by which the celestial bodies are moved are different from those toward which they are moved and that those forms must be absolutely without matter and without position are those forms toward which the spheres are moved and not those by which they are moved, inasmuch as those by which they are moved are forms in matters even though they are not divisible by the division of their matters. For if this what the opponents would say were true, the forms by which the celestial bodies are moved would be subsisting in their subjects and, hence, moved by the motion of their subjects. But if this were so, they would be divisible by the division of their subjects, for with regard to that which is moved, if it is moved essentially, that is, in the case of a body, it is divisible essentially and if it is moved accidentally it is divided accidentally. Therefore, there is nothing in the celestial body whereby the form by which the motion takes place differs from that toward which the motion tends, but they are one and the same form differing only in disposition. Furthermore, were the opponent correct in his contention that the form toward which the celestial body is moved is different from that by which it is moved, then the latter in causing motion would itself be moved and consequently the motion would be finite, for that which is moved while producing motion cannot be a principle for eternal motion. This is in accordance with what Aristotle has already stated. Furthermore, in

89 Avicena is the opponent whom Averroes has in mind.
90 The complete argument, which is only implied here, is: if this form (i.e., the efficient cause) were divisible, it would be finite and thus the action it produces, i.e., the action of the celestial bodies, would be finite (in all respects). But it has been shown that the action of the celestial bodies is infinite (in duration). Therefore, the original assumption, that the final and the efficient causes are different, is false.
91 The Hebrew manuscripts have an additional phrase at this point. In MSS. 2, 8, 9, it reads: Iதא אכר המהות ענヴהו, "that is to say [the celestial form is divisible], in virtue of its being which is divisible essentially." In the phrase reads: Iאכר היוה המהות ענヴהו, "I have in mind, in virtue of its being divisible essentially." Since this phrase does not appear to contribute anything to the argument, and since it is lacking in the Latin versions, I omitted it.
92 The argument in the preceding passage is condensed and in its expanded form it proceeds as follows: if the two forms differ, then the form producing motion inheres in the body of the celestial element. If this were the case it would be moved by the motion of the celestial body. But Aristotle has shown that the

opposition to the opponent's view it can be shown by the analogous fact that the intellect and the intelligible in the celestial body are one and the same thing, that the form toward which the sphere is moved and the form by which it is moved are one and the same. All this concerning the intellect and the intelligible has already been explained in other places.

And the heavens are said to possess a soul only in virtue of a desire existing in them and in virtue of possessing locomotion. Now, the desire which belongs to the celestial body exists only insofar as this body has life in virtue of itself and desire in virtue of itself, and not in virtue of a force existing in it which is divisible by the division of this body, for, if the latter were the case, the celestial body would be generated and corruptible. And the celestial body is said to undergo motion on

mover of the celestial body must be unmoved. Cf. Physics VIII, 5-6; Metaphysics XII, 8, 1073a, 23-1073b, 1.

93 In this passage the intellect of the celestial body is considered as the efficient cause of its motion and the intellect as its final cause. Since it has been shown by Aristotle (see succeeding note) that in the case of the celestial body the intellect and its intelligible are one and the same, it follows that the efficient and the final causes of celestial motion are identical. The opponent, that is, Avicenna, holds that the efficient and the final causes of celestial motion are not identical.

94 Cf. Metaphysics XII, 9, especially 1075a, 3-5, where Aristotle writes: "...Since, then, thought and the object of thought are not different in the case of things that have no matter, the divine thought and its object will be the same, i.e., the thinking will be one with the object of thought."

95 The heavens are moved circularly by having the prime mover as an object of appetite. Cf. Metaphysics XII, 7, 1072a, 19-1072b, 4. For a more detailed discussion of the cause of celestial motion, cf. below, chap. 4, n. 18.

96 Narboni (717r, 1): "i.e., it is completely actual and it does not have with its extension any potentiality toward a substance." Cf. Metaphysics XII, 7, 1072b, 27-30. Even though the analysis in this passage refers to the prime mover only, it is also applicable to the movers of the individual spheres. Cf. Metaphysics XII, 8.


97 The argument once again shows that, if the soul were a power inhering in the body, it would be finite and thus the activity it produces would also be finite and thus the body would come to be and pass away.
this is clear to him who is familiar with the fundamental principles of Aristotle. It has been proved then in this treatise what the substance of the heavens is according to the knowledge of the substance of their forms and matters. Not everything we have said was found explained in those books of the sayings of Aristotle that have reached us, but some of these things were found explained in his writings and some of them follow from what he has proved in the books that have reached us. However, it appears from his words that he has explained all of these matters in books of his that have not come down to us. And God is He Who guideth one into the right path. This treatise is called “A Discourse Concerning the Substance of the [Celestial] Sphere.” It is more worthy of this name than the treatise of Avicenna bearing this title. This great and useful treatise has been completed. Praise be to God; in Him we trust.

composed of matter and form, can acquire eternity from something other than themselves, then also the terrestrial bodies, which are composed of matter and form, can acquire eternity. If this were so, everything subject to generation and corruption could become eternal and thus the concept of generation and corruption would have to be abandoned. Since this conclusion is absurd, it follows that the original assumption of a composite celestial body that acquires eternal existence from something other than itself is absurd.

98, incipientia philosophiae. Narboni comments (171r, 1): “All the philosophers, whether they affirm or deny, whether they are for or against, whether they are of the East or West, are united in the belief that the heavens are eternal and incorruptible.” This phrase is reminiscent of such Koranic passages as: “And He [Allah] will guide them to Himself on a straight path” (4:174); “And He [Allah] is indeed guided to the right path” (3:90); “And He [Allah] guides them to the right path” (5:118); “And We [Allah] guided them to the straight path” (6:87).

99 Avicenna wrote a treatise entitled “The Uppermost Bodies.” This treatise carried the alternative titles, "Heavenly Bodies", "Explanation of the Fifth Substance." Cf. G. C. Anawati, Essai de Bibliographie Avicennienne (Cairo, 1950), pp. 125-127. This treatise appears in printed form as part of the collection known as Tis’ Radd’l. Cf. Anawati, op. cit., p. 325. As Steinschneider points out, the end of the treatise is probably a later addition. Cf. Steinschneider, Hebräische Übersetzungen, p. 184. It should also be noted that the last sentence of the Hebrew text rhymes, which would have been unlikely had it been translated from the Arabic.