EMENDATIONS IN COSMOLOGICAL TEXTS

Pl., Tim. 46c 7: The mechanism of vision has been explained and Plato now points out that what he has set forth is συναίτια, secondary causes unrelated to mind and soul. The philosopher prefers the purpose cause which is a manifestation of intelligent order in the physical world. δή τόν δὲ νοῦ καὶ ἔστιμής ἔραστήν ἀνάγκη τάς τῆς ἐμφύσεως φύσεως αἰτίας πρώτας μεταδίωκειν, ὅσα δὲ ὑπ’ ἄλλων καὶ κινούμενον, ἐτερα δ’ ἐξ ἀνάγκης κινούντων γίγνονται, δεντέρας. The second half of the sentence ὅσα δὲ...δεντέρας must contain a description of the mechanical causes and we understand that they take the form of some objects (b) moved by others (ὑπ’ ἄλλων, a) and in turn moving a third group (ἐτερα, c). To the one genitive τῆς ἐμφύσεως φύσεως corresponds the other...κινούμενον, ἐτερα δ’...κινούντων; and in both instances the genitives determine a type of αἰτία, since clearly τάς τῆς ἐμφύσεως φύσεως αἰτίας (c8) is taken up by ὅσα δέ (scil. αἰτία) in the second half of the sentence. This symmetry is disturbed by γίγνονται (12) whose presence seems due to a misunderstanding of ὑπ’ which is to be taken with ἄλλων but could easily be misunderstood as introducing everything that follows down to and including κινούντων. In Soph. 265 c, a passage added by Cornford (Plato’s Cosmology 157, n. 1) as support for αἰτία γίγνονται the genitive forms a part of a quite different construction. It seems necessary to excise γίγνονται.

Tim. 52 b 6: The existence of γίγνονται and the fact that sense perceived objects move into and out of a place (τόπος, 52 a 5–7) causes serious errors concerning the true realities. We persuade ourselves εἴναι ποιν τὸ δὲ ἂται ἐν τὶν τόπω... (b4f.); hence what has no place on Earth or elsewhere is considered οὐδὲν εἴναι. Holding such views we approach the εἴδη in the wrong spirit: ταῦτα δὴ πάντα (i.e. existence in space) καὶ τούτων ἄλλα ἄδελφα καὶ περὶ τήν ἄνυσιν καὶ ἄλησσις φύσιν ὑπάρχουσαν ὑπὸ ταύτης τῆς ὁνειρώξεως σοῦ δυνατοὶ γιγάντια ἐγερθέντες διοριζόμενοι τάληθες λέγειν... (this “truth” is in the remaining part of the sentence set forth in a rather involved manner); the gist however is that

1) The most elaborate interpretation known to me is that of Cherniss (now reprinted in Selected Papers, Leiden, 1977, 364ff.). It is unimpeachable

1 Rhein. Mus. f. Philol. 124/1
only images, not the ὅντως ὃν exists in place). Of the sentence just written out the latter part beginning ὑπὸ ταῦτα τῆς ὅνειροδεῖως is far easier to construe than the former. For ταῦτα δὴ πάντα... ἀδελφά we need a verb, preferably in the form of a participle to which ταῦτα...ἀδελφά would be the grammatical object. ὑπολαμβάνοντες is the best I can think of. Between ὑπάγονσαν and ὑπὸ it could easily drop out. If ὑπὸ in three successive words is stylistically offensive, ὑπάγονσαν ὑπὸ ὄμ. may be a better proposal. Still another possibility would be to insert ὑπολαμβάνοντες after ὅνειροδεῖως, though since the dreaming is the cause why even after waking up we cannot make the right distinctions it is clearly better not to separate ὅνειροδεῖως from ὃν ὅντατοι γεγονόμεθα.

Tim. 53a 5 ff.: The movement in the Receptacle causes some separation of its ingredients. What is dense and heavy tends in one direction, what is rare and light εἰς ἑτέραν...ἐδραν (53a 1 f.). The result is summed up thus: διὸ δῆ καὶ χώραν ταῦτα ἄλλα ἄλλην ἵσχεν, πρὶν καὶ τὸ πᾶν ἐξ αὑτῶν διαχωσμηθέν γενέσθαι. Cornford translates: “whereby the different kinds came to have different regions even before the ordered whole consisting of them came to be.” One may wonder whether the notion of order should not rather be made a part of the predicate. The “whole” comes into being out of them by an ordering process. However even as translated by Cornford the Greek would be ...καὶ πρὶν... not πρὶν καὶ... The creation of the Cosmos (no matter how understood) is treated as the great event which separates one state of things from another; what matters at this point is that certain conditions characteristic of the Cosmos had in a very limited way developed even before this creation. To be sure this early development before the creation (πρὸ τούτου αὐτὸς) lacked proportion (ἄλογος) and measure which were introduced ὅτε δ’ ἑτεροείτο κοσμείσθαι τὸ πᾶν (b 1). The decisive quality of this all-important step must not be blurred by πρὶν καὶ... We may note that καὶ precedes πρὶν in the sentence which opens the description of the precosmic condition: ...ὁν τε καὶ χώραν καὶ γένεσιν εἶναι, τρία τούχῳ, καὶ πρὶν οὕτων γενέσθαι (52d 3f.).

as far as grammar and usage go, though I have wondered at times whether it adds enough to the sense and whether the thought which it negates would not be an absurdity.

2) Tim. 53a 5 ff. I would also not hesitate to compare Arist., de caelo II 13, 295 b 6 f.; ἢν ἄρα καὶ πρὶν γενέσθαι τὴν δὴν ἐκ τοῦ καὶ κοίνου, even though that passage refers not to the Platonic but to a Presocratic cosmo-
Arist., Phys. III 5, 204b 26ff.: Some thinkers who entertain the hypothesis of an infinite body do not identify this body with one of the basic elements; for an infinite element would destroy the others because the qualities characteristic of the elements are contrary to one another. ἔχουσι γὰρ πρὸς ἄλληλα ἐναντίωσιν—οἶνον ὁ μὲν ἄμορφο ψυχρός, τὸ δ' ὑδωρ ὑγρόν, τὸ δὲ πῦρ θερμόν, (<ὁς ἡ γῆ ξηρά>, ὥν εἰ ἦν ἐν ἀπειρόν, ἐφθάστο ἄν ἦδη τάλλα. The clause ὅν εἰ ἦν ἐν ἀπειρόν suggests that a full list of the elements including an opposite to the υγρόν preceded, (if οἶνον indicates a selective procedure this need not indicate that of the four elements only three are used as examples. It is just as likely to refer to the opposite qualities of the elements which are more than one in each case; yet only the most important one is here selected).

Phys. IV 11, 219a 28: Although my proposal receives its strongest support from the sentence which follows, I think it well to go back five lines to 222 where Aristotle declares: ἀλλὰ μὴν καὶ τὸν χρόνον γε γνωρίζομεν ὅταν ὀρίσωμεν τὴν κίνησιν, τῷ πρῶτερον καὶ ὑστέρον ὀρίζοντες. Clearly ὀρίζειν cannot here mean “define” but is used for the separating off of parts or the placing of boundaries). We are cognizant of χρόνος when with the help of movement we notice sequences of “earlier” and “later” stretches: ὀρίζομεν δὲ τῷ ἄλλῳ καὶ ἄλλῳ ὑπολαβεῖν αυτά (scil. the successive phases or “befores”), καὶ μεταξὺ τί αὐτῶν ἑτέρων. In the next sentence it is not the μεταξὺ which matters but the πρῶτερον and ὑστέρον: ὅταν γὰρ ἑτέρα τὰ ἁκρα τοῦ μέσου νοησόμεν, καὶ δύο εἰς ἡ ψυχὴ τὰ νῦν, τὸ μὲν πρῶτερον τὸ δ' ὑστέρον, τότε καὶ τούτῳ φαμέν εἶναι χρόνον (26–29). Obviously the ἁκρα are the earlier and the later νῦν. While we are familiar with expressions of the
gony and conditions preceding it. And I notice with interest “even before” in modern scholarly discussions of the subject (e.g. Vlastos, “The Disorderly Motion in the Timaeus” in R.E. Allen (ed.), Studies in Plato’s Metaphysics, London—New York, 1965, 390. See also Hans Herter, Kleine Schriften (München, 1975) 342 and pass., who like Vlastos emphasizes how utterly different conditions in the Receptacle as described here are from those brought about by the Demiurge and the operation of a cosmic Soul. πρὶν καὶ blunts the edge of this antithesis and makes us think of the cosmic arrangement as something like the final outcome of the precosmic separations.

3) “einen Schnitt legen” Hans Wagner, Aristoteles Physikvorlesung (= Aristoteles Werke in deutscher Übersetzung herausgeg. von Ernst Grumach, vol. 11, Berlin, 1976). I have not indicated every instance where I have been confirmed in my views by Wagner’s translation or by his notes. W.D. Ross, Aristotle’s Physics (Oxford, 1936) has also been regularly consulted.
“then and there” type and might also accept a “then and this”, the Greek sentence seems to gain in clarity if after \textit{tote} we insert \textit{dorizomenv}. That we do justice to Aristotle’s meaning is shown by what follows: \textit{to gar dorizomvenov to voun chronos einao doxei kai upokeisth}. (29f.)

Phys. IV 13, 222b 4: Aristotle’s very elaborate investigation of \textit{chronos} and its relation to movement (or change in general, \textit{kinesis}) has led him to study also the “now”, an important if in some ways puzzling subject. We shall see later that it can be regarded as separating “before” and “after”. With reference to what goes on beforehand it is the “end”, while for what comes it is the “beginning”. These characteristics of the “now” have a bearing on \textit{chronos}. \textit{Etei de to voun telenet}\textit{h} kai \textit{arxh} \textit{chronos}, \textit{alla ou tov auton}, \textit{alla tov men parhmononos telenet}\textit{h}, \textit{arxh} \textit{de tov melhontos}, \textit{exai av opse}r \textit{kylkos en to avtou pws to kynon kai to koilon}, \textit{oxtos} kai \textit{ou chronos de}i \textit{en arxh} kai telenet\textit{h}. Ross (ad. loc.) quite correctly observes that it is unnecessary to make this sentence finish \textit{en to avtou pws arxh} kai telenet\textit{h} “as strict grammar would require”; but to read and construe \textit{exai av en... ou chronos dei en arxh} kai telenet\textit{h} remains harsh and the parallel with the circle which “has” at once “the” concave and “the” convex can be achieved by supplying a \textit{to} before the words \textit{en arxh} kai telenet\textit{h}. From the “now” which actually is \textit{arxh} kai telenet\textit{h} time acquires the characteristic of having \textit{<to>} \textit{en arxh} kai telenet\textit{h}.

Phys. V 5. 229b 16ff.: What kind of changes (\textit{metabolai}) and what movements (\textit{kinesis}) should be considered contrary to one another? These questions and the various possibilities of answering them have engaged Aristotle from the beginning of V. 3. At 229a 27 he has decided in favor of changes to contraries and from contraries, two kinds theoretically, but they coincide often, since a movement from right to left is the contrary of one from left to right and a change from health to illness the contrary of one from illness to health. At 229b 14 Aristotle wonders how to treat intermediate positions on the way from contrary to contrary. They too are somehow contraries, he suggests and supports this by using “grey” (\textit{fainon}) as an illustration. I doubt however whether the sentence embodying the illustration has

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4) A similar \textit{to} indicating a concept or principle (though in this instance it happens to be the absence of a principle and as a result the rule of chance) should be supplied at II 8, 199b 14: \textit{eti idei kai en tois spheiroi gignesthai <to> idios esthven. to idios esthven is an alternative to to en eva tov (199b 10; 30), to \textit{e} anagnikos (ibid. 34) and similar concepts.
been transmitted correctly. My quotation includes the addition and deletion that seem desirable: ὃς ἐναντίον γὰρ χρῆται τῷ μεταξὶ ἢ κίνησις, ἐφ' ὁπότερα ἐν μεταβάλλῃ, οἶον ἐκ φαινοῦ μὲν εἰς τὸ λευκόν ὃς ἐκ μέλανος (καὶ εἰς τὸ μέλαν ὃς ἐκ λευκοῦ), καὶ ἐκ λευκοῦ εἰς φαινὸν ὃς εἰς μέλαν, ἐκ δὲ μέλανος εἰς φαινὸν ὃς εἰς λευκὸν [τὸ φαινόν]. It is hard to believe that Aristotle, especially after the clause ἐφ' ὁπότερα ἐν μ., should have left one of the four possibilities to the reader to supply.

Phys. VIII 1, 252a 15: While upholding his thesis of the eternity of movement, Aristotle finds a good deal to criticize in what he regards as arbitrary assumptions of the Presocratics. Simply to declare ὅτι πέφυκεν ὁτὼς as he thinks they do cannot provide a valid ἀρχή for a physical system (252a 5 ff.). Anaxagoras who posits a single ἀρχή – obviously a reference to the Νοῦς – lays himself open to a special attack. He supplies no cause for the transition from the initial πάντα ὁμοίωθεν without motion to the motion caused by Νοῦς and he fails to explain why this happened just at one particular time: ἀλλὰ μὴν οὐδέν γε ἀτακτὸν τῶν φύσεων καὶ κατὰ φύσιν· ἢ γὰρ φύσις αἰτία πᾶσιν τάξεωσι. τὸ δ' ἀπειρον πρὸς τὸ ἀπειρον οὐδένα λόγον ἔχειν τάξις δὲ πᾶσα λόγος. Here λόγος, as the commentatores observe, is to be understood as “numerical ratio”.

tὸ δ' ἀπειρον χρόνον ἑσμεῖν, εἴτε κινηθῆναι ποτε, τούτον δὲ μηδεμίαν εἴναι διαφοράν, ὅτι νῦν μάλλον ἢ πρότερον, μηθ' αὖ τινὰ τάξιν ἔχειν, οὐδέτερον φύσεως ἔργον. I find it difficult to make sense of the words τούτον δὲ μηδεμίαν εἰναι διαφοράν unless I add αἰτίαν (after μηδεμίαν); for Aristotle evidently misses not a difference between rest and motion but a different condition which would account for the transition from rest to movement. Why should movement arise at one particular point of time rather than at another? We read immediately afterwards that Nature acts either ἀπλῶς or, i.e. if its way of action changes there is a reason for it: λόγον ἔχει τὸ μὴ ἀπλῶς (17–19). And when Aristotle next turns to Empedocles, he does find τάξις in his scheme (21) but again δὲ τὸν ἐτοίμασα μὴ φάναι μόνον, ἀλλὰ καὶ τῇν αἰτίαν αὐτοῦ ἐτέλεσεν (22f.)

5) I may as well admit that I feel uneasy also about the passage dealing with the omissions of Empedocles. My suggestion may prompt somebody else to come forward with a more satisfactory explanation. Empedocles' assumptions (ὑποτεθέντα, a 25f.), i.e. Philotes and Neikos plus the descriptions given of them do not account for their regular alternations in the cosmic processes: οὐδὲ τούτον· ἢν τὸ Φιλότητι ἢ Νείκει νεαν, ἀλλὰ τῇ μὲν τὸ συνήγειν, τῷ δὲ τὸ διαχώρισεν (a 26f.), εἰ δὲ προσδιορισθείτα τὸ ἐν μέσῳ, λειτένων (διὰ τὸ καὶ μὴ μόνον) ἐφ' ὧν οὐτῶς, ὡσπερ ὅτι συνάγει τοὺς ἀνθρώπους ἡ φιλία
Phys. VIII 3, 253 b 22: Changes, extensions, activities and much else may be divided into successive parts or portions but it must be asked whether it is always correct to apply this viewpoint. We may here content ourselves with two of Aristotle’s illustrations: If a certain number of men haul a ship in a certain time a certain distance it is their cumulative effort which achieves this and it would be wrong to suppose that say a third of that number haul the boat a third of the distance. The same kind of reasoning applies to the melting of an object through the action of moisture (Aristotle speaks of “drops”, σταλαγμοι b 14 ff.). It is doubtless correct to say that “the amount removed is divided into a number of parts”: διαφεύγεται... τὸ ἀφαιρήθην εἰς πλείων even though the parts were not removed separately but everything at the same time (19–21); but when the Mss continue φανερῶν ὁδέν ὡς ὅλη ἀναγκαῖον ἐὰν τι ἀπείναι, ὥστε διαφεύγεται ἡ φύσις εἰς ἄκτειρα... (21–23) it seems better to write διαφεύγετη because to potential divisibility there is indeed no limit; whereas what actually happens is something different: ὅλον ποτέ ἀπείναι (21–23). The observation about another type of change in the next sentence is apt to support my suggestion: οὐ γάρ εἰ μεριστῶν εἰς ἄκτειρα τὸ ἀλλοιούμενον, διὰ τοῦτο καὶ ἡ ἀλλοίωσις, ἀλλ’ ἄδροα γίγνεται πολλάς... (23 ff.).

Phys. VIII 4, 255 a 9ff.: Every object moved owes the impulse of the movement to something, though not always or necessarily to something other than itself. Living beings in particular are self-movers. But what are we to think about objects heavy and light? If these objects move toward the ἀντικεῖμενοι τόποι, i.e. heavy things upward, light downward, this motion is called βία or contrary to nature. Thus the motion downward of heavy, upward of the light things must be φύσει, but what causes them to move? To say that they are moved by themselves is impossible since this is a peculiar capacity of living beings. Also if they can move themselves, they should also be

καὶ φεύγων ποι ἑξηθοὶ ἀλλήλους. τοῦτο γάρ ὑποτίθεται καὶ ἐν τῷ ὀλῷ εἶναι. φαίνεται γάρ ἐπὶ τῶν ὀντῶν (a 27–31). Empedocles, as I understand the text has provided illustrations, which amount to proofs, of how Love and Strife operate; more specifically he has pointed to their manifestations in human life and assumed the same ἐν τῷ ὀλῷ (30). But periodic alternation is not explained in this way: τὸ δὲ καὶ δὲ ἱσων χρώνων δεῖται λόγου τίνι (31 f.). δὴ ἱσων χρῶνων goes even beyond the ἐν μέγει of a 27ff., and I cannot help the impression that the logic of the sentence εἰ δὲ προσδιορίζεται... points to the demand for a reason of the ἐν μέγει, the ruling “in turn”. 
able to do the opposite: καὶ ἵσταναι ἃν ἐδύνατο αὐτὰ αὐτά· λέγω δ’ οἶον, εἰ τὸν βαδίζειν αἶτιον αὐτῷ καὶ τὸν μὴ βαδίζειν. The next sentence (α 9f.) runs: ὥστε εἰ ἐπι αὐτῷ τὸ ἀνω φέρεσθαι τῷ πυρὶ, δήλον ὅτι ἐπ’ αὐτῷ καὶ τὸ κάτω. Is this another illustration of “being able to do the opposite”? We would not expect to see it introduced by ὥστε. Somehow this second example seems pointless. When we read the next sentence: ἀλογὸν δὲ καὶ τὸ μίαν κίνησιν κινεῖσθαι μόνην ὑφ’ αὐτοῖν, εἰγε αὐτὰ ἕαντα κινοῦσιν we realize that this is the argument which the second example illustrates. Evidently the two sentences must exchange their places: ἀλογὸν δὲ καὶ – εἰγε ἃ. ἃ. κινοῦσιν ὥστε εἰ. . . καὶ τὸ κάτω.

Phys. VIII 7, 260a 20ff.: Ὑδ’ μὴν ἄλλα καὶ ἄλλην ποιησαμένος ἄρχὴν μᾶλλον ἔσται περὶ τουτῶν (scil. about the first mover and the first movement of the Cosmos) φανερὸν. σκεπτέον γὰρ πότερον ἐνδέχεται τινα κίνησιν εἶναι συνεχῆ ὧν, καὶ εἰ ἐνδέχεται, τις αὕτη, καὶ τις πρῶτη τῶν κινήσεων δήλον γὰρ ὅτι εἴπερ ἀναγχαίον μὲν ἔαί κίνησιν εἶναι, πρῶτη δὲ ἢδε καὶ συνεχῆς, ὅτι τὸ πρῶτον κινοῦν κινεῖ ταύτην τὴν κίνησιν, ἢν ἀναγχαίον μίαν καὶ τὴν αὕτην εἶναι καὶ συνεχῆ καὶ πρῶτην. The sentence beginning σκεπτέον γὰρ . . . leaves us with the impression that Aristotle is about to examine three questions: 1) Is there such a thing as a continuous movement? 2) If yes, what kind of movement is it? 3) Which movement is to be considered the first? We understand however that in the last words of the passage quoted he anticipates some of his findings including the identity of the first and the continuous movement (with a kind of enthusiastic conviction he expands συνεχῆ into μίαν καὶ τὴν αὕτην καὶ συνεχῆ). Suspicion is however aroused by the appearance of the words πρῶτη δὲ ἢδε καὶ συνεχῆς earlier in the same sentence. For not only does the concluding part of this sentence ἢν ἀναγχαίον . . . πρῶτην lose much of its force if its essence is announced beforehand; it is also far more natural to read the εἴπερ ἀναγχαίον μὲν ἔαί κίνησιν εἶναι as meaning that there must always be movement than as asserting the existence of one particular continuous movement. That movement ἢν καὶ ἔαί ἔσται, as something ἄδανατον καὶ ἐπαναστόν (250b 13f.) is the first and fundamental thesis of Book VIII established in ch. 1 and defended against contrary theories in ch. 26).

6) I add a number of other suggestions without doing more than a minimum to support them since arguments as far as they might be necessary would require a disproportionate amount of space: Πί 1, 193a 12ff.; according to Antiphon, if a bed were to rot and put forth a shoot this ὅπως ἐν γενέσθαι κλάνην ἄλλα ἔφιλον, ὥς τὸ μὲν κατά συμβεβηκός ὑπάρχην, τὴν κατά
clause πρώτη δὲ... originated with a reader whose understanding was incomplete and who could not wait.

de caelo I 7, 276a 12ff. It will be necessary to put here the concluding sentences of I 7 although our concern is with their

νόμον διάθεσιν καὶ τῷ τέχνῃ, whereas the substance (οὐσία) is that which persists. – ΠΙ 6, 206a 21ff.: ἀλλ’ ἐπεὶ πολλάχιος τὸ εἶναι, ὡσπερ ἢ ἡμέρα ἔστι καὶ ὁ ἀγών τῷ αἰεὶ ἄλλο καὶ ἄλλο γίγνεσθαι, οὕτω καὶ τὸ ἁπλεῦρον (scil. exists as ἄλλο καὶ ἄλλο ἰν ἀπώθεν διαμορφώσει, 26ff.): καὶ γὰρ ἐπὶ τούτων <τῷ> ἔστι καὶ δυνάμει καὶ ἐνέργειᾳ. Ὅλοντα γὰρ ἔστι καὶ τῷ δύναμι πον ἀγώνα γίγνεσθαι καὶ τῷ γίγνεσθαι. (Aristotle has introduced the opposition of ὅνωμα and ἐνεργεία viz. ἐνεργεία at a 14 for τὸ εἶναι and has used it ever since.)

Inference. Erstreckung der Ausdehnungsgröße has caused me to think once more about the deletion but I cannot see that the words in question serve a purpose; conceivably they might be treated as parenthesis intended to justify the use of the word διάστημα but at b4 ἔτερον itself is the right word for the same thought, nothing ἔτερον being needed.

IV 13, 222a 20ff. Time can always be considered as situated between a beginning and an end. Thus τὰς ἐν εἰς χρόνον πεπερασμένοις, ὅς ὁ ὅν ὑπολείφει; ἡ ὕπα, εἰπέρ έαί ἐς κάνησις; ἄλλος ὁν (καὶ ἄλλος) ἢ ὁ αὐτὸς πολλάκις; δήλου ὅτι ὅς καὶ ἡ κάνησις, οὕτω καὶ ὁ χρόνος... The reasoning which follows leads to the conclusion: καὶ διὰ τούτο δοκεῖ αἰεὶ ἔτερον (scil. ὁ χρόνος, 222b 4ff.). Note also ἄλλος καὶ ἄλλος in Simplicius' comments on the passage (751.5, 6 Diels). – 14, 222b 33ff.: λέγω δὲ ὅτι ποιεῖται τὸ ἐπίστασις μεταβάλλων εἰς τὸ ὑποκειμένον κατὰ τὸ αὐτὸ διάστημα <τὴν αὐτὴν> καὶ ὁμαλὴ κάνησις καὶ κυριολεκτικὸν οἷον εἰς τῆς φορᾶς, εἴ ἄμφω κατὰ τὴν περίφρασθα δικαιεῖ ἢ ἄμφω κατὰ τὴν εὐθείαν... The two examples illustrate τὴν αὐτὴν.

V 4, 228b 15ff.: ἕτε τὸ ἄλλος παρὰ τὰς εἰς ὑποθέσις ἔρχεται μία κάνησις ὁμαλής. ἡ γὰρ ἀνομίας ἐστὶ ὅσ [οὔ] δοκεῖ μία, ἄλλα μᾶλλον ὁμαλής, ὡσπερ ἔντειτα ἡ ἀνομίας διαφημήθη, δοκεῖ ὃς διαφημήθη ὁς τὸ μᾶλλον καὶ ἡ ἔτος. – 3, 229a 7: ἕτε δὲ ὁμορθοῦσον ποια κάνησις ἐναντίον <ποιά> κάνησις, καὶ περὶ μονῆς δὲ τὸν αὐτὸς τόρον seems to be the correct heading for the qualification which fills the remaining chapters of Book V; see also Simplicius 900. 19.– 6, 229b 28ff.: ποτέρον τῇ ἐπικατα κατα φή ἐκ τούτον ἢ ἐκ τούτοις καὶ τῇ ἐς τούτο κάνησις ἀντίκειται; δήλου δή ὅτι, ἐπεὶ ἐν δυνᾶν ἡ κάνησις ὑποκειμένος <μᾶλλον> δὲ λέγεται εἰς ἢ καὶ καὶ ἡ ἔξ ὑποκειμένος, τῇ μὲν ἐκ τούτοις καὶ εἰς τὸν ἐναντίον ἡ ἐν τῷ ἐναντίῳ (scil. ἀντίκειται), τῇ δὲ ἐκ τοῦ ἐναντίον εἰς τοῦτο ἢ ἐν τῷ ἐναντίῳ. For the premiss here supplied see 229a28–b2; I do not see how the argument could convince without it. – VI 8, 230a 35ff.: ἐν δὲ τῷ νῦν ἐστὶ μὲν ἐνατά τι ἐνδείκνυται ἢ ἐν αὐτὸ ἐντείκειν εἰς τῷ νῦν καὶ ἐνατά τι, ἢ ἐν ἀνατά ἢ δὲ ἐνδείκνυται εἰς κατά τι σειμαίνει γὰρ τὸ φερόμενον ἡκειμέν. The body which is in movement cannot be in a period of time "over against something."
relation to the chapter as a whole: ἡ ἐπιστευτα, ἀνάγκη των εἶναι ἄλλον τοῦτον τὸν τότῳ κατὰ φύσιν (τοῦτο δὲ πιστῶ ἐκ τῆς ἐπαγωγῆς: ἀνάγκη δὴ μὴ πάντα ἡ βάρος ἕχειν ἡ καυρότητα, ἀλλὰ τὰ μὲν τὰ δ’ οὖ. οὔτε μὲν τοίνυν οὖν ἔστι τὸ σῶμα τοῦ παντός ἀπειροῦν, ἐκ τούτων φανερῶν. Throughout ch. s 5–7 Aristotle has built up a terrific battery of arguments against the existence, nay against the possibility of conceiving an infinite body. The last sentence written out above is a fitting conclusion of these arguments. Having read it, we are prepared for a new subject to be taken up in ch. 8. But while this sentence is definitely in place, the presence of neither of the others can be justified. To begin with the latter ἀνάγκη δὴ... , it will be well to remember that of the traditional four elements two are light and two heavy. The introduction of the fifth body changed this situation. As it moves neither downward nor upward but performs a circular movement, it is no longer correct to say that every element must have either weight or lightness, and Aristotle himself makes clear this conclusion as explicitly as could be desired immediately after incorporating the new element in his system: φανερῶν δὴ οὔτε καυρότητα οὔτε βάρος ἕχει σῶμα ἄπαν (I 3, 269 b 19 f.; see also b 20–270a 12). At the end of the disquisitions about the possibility and about the hypothetical implications of an infinite body the observation that not all bodies are either heavy or light?) is utterly out of place and no connection, however remote with anything contained in the preceding chapters can account for its presence.

The case for the other sentence ἡ ἐπιστευτα ἐκ τῆς ἐπαγωγῆς (276a 12–15) is hardly better. Immediately before this sentence it has been established that an infinite body can have no place and is not able to perform any movement (276a 8–12). There is no question of its remaining in or moving to a place παρὰ φύσιν 8).

7) Stocks’ rendering of the sentence is correct. Guthrie and Moraux understand that some elements have weight, others lightness. This is excluded by the sentence structure: μὴ πάντα η... η... (not all have either the one or the other) ἀλλὰ τὰ μὲν τὰ δ´ οὐ. The alternative applies to some elements, not to others.

8) Guthrie and Moraux read at the beginning of the former sentence ἡ ἐπιστευτα, which has strong Mss support, and treat ἀνάγκη δὴ as the main clause of the sentence. Legitimate as this procedure is, it does not produce a better sense (if any at all) nor does it make the sentences more relevant to the context. My discussion of a 15 in Aristotle’s System of the Physical World (Ithaca, N. Y., 1961) 303 n. 49, was inadequate. Whether we read ἀνάγκη δὴ or ὅπερ δὲ, “a connection with the argument against infinity” cannot be
We have probably no choice but to bracket ἐπὶ οὖ...τὰ δ’ οὖ, although we cannot explain how the sentences came to be placed here.

de caelo I 8, 276a 22ff.: ἀπαντά γὰρ καὶ μένει καὶ οὐνεῖται καὶ κατὰ φύσιν καὶ βία. κατὰ φύσιν μὲν, ἐν ὃ μένει [μὴ βία], καὶ φέρεται, καὶ εἰς ὅν φέρεται, καὶ μένει ἐν ὃ δὲ βία, καὶ φέρεται βία, καὶ εἰς ὅν βία φέρεται, βία καὶ μένει. The words μὴ βία which I have bracketed disturb the simple and clear-cut statement of correspondences and do not help to bring the antitheses into focus.

de caelo I 8, 277a 12ff.: The natural movements of the elements have their definite terminus in Aristotle’s cosmos: ὥστε τι τοῦ πέραν ἔτη θεωδοσια καὶ τὸ πῦρ, δήλον καὶ ἐκ τῶν ἄλλων. What τὰ ἄλλα means is not immediately clear; nothing in the preceding argument (276b 26–277a 11) provides light. However with the next sentence we begin to see what Aristotle has in mind: ὥστε τὸ κυκλόμενον ἐκ τινὸς εἰς τι μεταβάλλει... πᾶσα δὲ πεπερασμένη μεταβολή, ὥστε τὸ νυχτόμενον ἐκ νόσου εἰς νύκταν καὶ τὸ αὐξανόμενον ἐκ μικρότητος εἰς μέγεθος. These are the ἄλλα which make it possible for Aristotle now to conclude: καὶ τὸ φερόμενον ἄρα καὶ γὰρ τοῦτο γίνεται ποθὲν ποι ἀ 17f.). Against adding <μεταβολῶν> after ἐκ τῶν ἄλλων it might be argued that in a treatise, as distinct from a work of literature a certain stylistic casualness should be tolerated. Although I find little or no casual phrasing in these sections of de caelo, I did feel some hesitation before I noticed the similar passage in IV 3 (310a 20ff.): περὶ μὲν οὖν τοῦ φέρεσθαι εἰς τὸν αὐτὸ τὸν ἐκκατον ὁμοίως ὑποληπτέον ὑσσερὶ καὶ περὶ τὰς ἄλλας γενέσεις καὶ μεταβολάς. Here too the observations that follow use the analogous condition in the other types of physical change 9).

de caelo I 9, 279a 22: Divine beings have the best life (ζωὴν) and are not in need of anything while they continue τὸν ἄπαντα αἰῶνα. Aristotle next explains the meaning of αἰῶν,
a word that strikes him as “inspired”: τὸ γὰρ τέλος τὸ περιέχον τὸν τῆς ἐκάστου ζωῆς χρόνον... αἰῶν ἐκάστου κέκληται, κατὰ τὸν αὐτὸν δὲ λόγον καὶ τὸ τοῦ παντὸς οὐφανὸς τέλος καὶ τὸ τὸν πάντα χρόνον καὶ τὴν ἀπειρίαν (i.e. infinite time) περιέχον [τέλος] αἰῶν ἐστιν, ἀπὸ τοῦ αἰεὶ εἶναι εἰληφώς τὴν ἐπωνυμίαν, ἀδάνατος καὶ θείος. I do not think I am insensitive to the sublime quality of the style but I cannot persuade myself that the repetition of τέλος contributes to this quality. In the preceding sentences we were introduced to τὸ τέλος τὸ περιέχον and learned incidentally to think of an individual’s lifetime as the (grammatical) object of περιέχον. Thus there can be no doubt that after τὸ...οὐφανὸς τέλος the word τέλος must be the noun that is modified by περιέχον. The renewed occurrence of this noun is not only gratuitous but actually interferes with the enthusiastic tone kept up throughout this section.¹⁰

decaeio I 10, 280a 4: In the section 279b 32–280a 11 the repeated occurrence of τὸ αὐτὸ has created difficulties for the modern interpreters and may well be responsible for a corruption. Aristotle argues against those who defend Plato’s cosmogony in the Timaeus by comparing it with the construction of a geometrical figure¹¹. On this view the cosmogony would be pedagogical rather than truly scientific in intention. Aristotle rejects the comparison: τοῦτο δ’ ἑστίν, ὡσπερ λέγομεν, οὐ τὸ αὐτὸ. He explains: ἐν μὲν γὰρ τῇ ποιήσει τῶν διαγραμμάτων πάντων τεθέντων εἶναι ἀμα τὸ αὐτὸ συμβαίνει.... What does τὸ αὐτὸ mean here? In Moraux’ rendering: (in the construction of figures) “si l’on en suppose tous les éléments donnés simultanément, le résultat reste le même,” the last five words offer no light. More-

¹⁰ B9, 290a 34ff.: if the Pythagorean doctrine of a music performed by the heavenly spheres were correct the tremendous sounds ought not only to be heard but have still another effect: οἱ γὰρ ὑπερβάλλοντες γόροι διακαίονται καὶ τῶν αἰρήχων σωμάτων τοὺς ὄγχους, οἷον ἡ τῆς βροντῆς διάστησις λίθους καὶ τὰ καρπερώσατα τῶν σωμάτων. τοσοῦτον (scil. the bodies of the planets; cf. 290b 18ff.) δὲ φερομένων καὶ τοῦ φώσον διόπτος πρὸς (= in proportion to) τὸ φερόμενον μέγεθος, πολλαπλάσιον [μέγεθος] ἀνάρχαιον ἀφινεῖσθαι τε διόρο καὶ τὴν ἴχθον ἀμήχανον εἶναι τῆς βίας. The noun to be supplied to πολλαπλάσιον is not once again μέγεθος but φόρος. – At B 14, 296b 16 the disquisition regarding the terminus of a movement – is it the center of the Earth or the center of the Cosmos? – has reached its solution and the logic of the argument (which is too long to be quoted in full) requires: φέρεται ὕπα (γὰρ Mss.) καὶ ἐπὶ τὸ τῆς γῆς μέσον.

¹¹ The target of his polemic is Xenocrates, as we know from Simplicius de caelo 303. 33ff. For further references see Moraux’s note ad loc. and Guthrie, HGPh. 5. 302f. and nn.
over from what follows in the Greek it will be seen that the attempt to connect ἃμα with πάντων τεθέντων εἶναι misses the point of the argument, for which contrary to appearances and first impressions ἃμα is more important than τὸ αὐτῷ. Aristotle continues: ἐν δὲ ταῖς τοῦτων ἀποδείξεισι (i.e. constructions of the Cosmos) ό ταὐτών, ἀλλ’ ἀδύνατον. Here the comparison is once more rejected, while ἀλλ’ ἀδύνατον points ahead to the proof that in the cosmogony ἃμα is inconceivable. The conditions posited for the original and for the later state of things are at variance: τὰ γὰρ λαμβανόμενα πρότερον καὶ ὠστερον ὑπεναντία ἔστιν. ἐξ ἀτάκτων γὰρ ποτε τεταγμένα γενέσθαι φασὶν, ἃμα δὲ τὸ αὐτὸ ἀτάκτων εἶναι καὶ τεταγμένον ἀδύνατον, ἀλλ’ ἀνάγκη γένεσιν εἶναι τὴν χωρίζονσαν καὶ χρόνου ἐν δὲ τοῖς διαγράμμασιν οὐδὲν τῷ χρόνῳ κεχώρισται. The last sentence here written out states with all desirable clarity that the crucial question is whether there must be a time interval (which would of course exclude ἃμα). That the result of the construction is “the same” as the τεθέντα (or λαμβανόμενα πρότερον) is asserted nowhere except in the sentence which causes trouble. In the two other sentences where ταὐτών (or τὸ αὐτό) occurs it relates clearly to the identity or comparability of geometrical and cosmological constructions. Giving ἃμα its proper weight I should read in a4: πάντων τεθέντων εἶναι, ἃμα αὐτὸ (i.e. the figure) συμβαίνει. The corruption may be due to a misunderstanding or to a mechanical adjustment; it is hardly necessary to suppose that besides τὸ αὐτό in the preceding (and in the following) clause ὑπεναντία too has contributed its share to the confusion.

de caelo I 12. 283a 11: Aristotle is combatting the theory that something that has been defined as indestructable (ἀφθαρτὸν) may yet at some time suffer destruction. The truth is that what is indestructible must last forever, i.e. an infinite time. After having brought forward other arguments he asks: ἐτὶ τὶ μᾶλλον ἐτὶ τῶδε τῷ σημείῳ ἄει ὤν πρότερον ἐφαρμάκη…. The translators understand correctly: “why was it destroyed at this particular point of time

12) Guthrie’s translation is open to the same criticism. Since the word ἃμα occurs only once (280a 7) in the argumentation designed to expose the absurdity of the opponents’ comparison, the unfair deal which it has received at a4 may be excusable. Still the simultaneous existence of opposite condition is the crucial issue. At 280a 11 ἃμα is used for the different purpose of indicating a simultaneous championing of incompatible theories. Stocks does better: “the required figure forthwith results” but his explanatory note: “the same’ as that demanded in the ὑπόθεσις” fails to convince.
rather than at any other....)? However Aristotle's way of expressing such thoughts is μᾶλλον ἐπὶ τῶδε ἢ τῶδε τῶ σημεῖον, which we do well to restore here. Cf. e.g. Phys. IV 8. 215 a 19 f.: (in the void) οὐδείς ἂν ἔχοι εἰπεῖν διὰ τί κινήθην στήσεται ποιν' τί γάρ μᾶλλον ἐνταῦθα ἢ ἐνταῦθα; or III 4. 203 b 27.

de caelo II 12, 291 b 24 f.: δύοιν δ' ἀποκριαὶ οὐσαν, περὶ ὧν εἰκότως ἂν ὀστισσοὶ ἀποφήσεις, πειρατέον λέγειν τὸ φαινόμενον, αἰδοὺς ἄξιαν εἶναι νομίζοντας τὴν προθυμίαν μᾶλλον ἢ θάςπους, εἰ τις διὰ τὸ φιλοσοφίας δυσῆν καὶ μικρὰς εὐπορίας ἀγατὰ περὶ ὧν τὰς μεγίστας ἐξομεν ἀποφίας. In venturing on something for which the evidence is hardly sufficient Aristotle bespeaks the reader's (or listener's) indulgence. His attempt deserves to meet with αἰδοὺς. “evidence of modesty”, Guthrie's rendering of αἰδοὺς ἄξιαν, does not do justice to Aristotle's thought. Neither thirst for truth nor the venturing from a small basis of asserted facts into the realm of hypotheses can be regarded as “modesty”. And to translate ἄξιαν by “evidence” violates the meaning of this word. LSJ which puts the passage in a category of its own and proposes “more like modesty than rashness” does not help matters. Instead of coming forward with new meanings of ἄξιος we ought to recognize the impossibility of arriving at a satisfactory sense as long as we connect ἄξιος with the two genitives αἰδοὺς and θάςπους. The remedy is to change ἄξιος to ἄξιον, making it a direct object of νομίζοντας. If the dual construction of νομίζειν which results from this change appears too zeugmatic for comfort it might be necessary to delete the article before προθυμίαν. To preserve the normal meaning of ἄξιος and leave the beautiful, remarkably personal sentiment of the passage undamaged 13) I would be ready to make this additional change but I hardly think it necessary.

de caelo II 13. 294 b 31: The subject of the last two chapters of de caelo II is the Earth. Beginning in ch. 13 with its place in the Cosmos, Aristotle after a while (293 b 16) turns to the question whether it is at rest or in movement. This claims the larger part of ch. 13; for even what is said about the Earth’s shape (293 b 32–294 a 10) constitutes only a brief digression into a topic closely related to rest or movement. Immediately before this section at 293 b 30 Aristotle briefly refers to Plato’s suggestion (Tim. 40 B) that the Earth performs a winding motion

13) For a similar defense of the philosophical προθυμία see B 5, 287 b 28–288 a 2. Note also 13, 294 a 11 f.
around the axis of the world. After the digression he discusses and criticizes a variety of theories meant to account for the resting of the Earth. Although this discussion at 294a 10ff. opened with the words: καὶ γὰρ δὴ οἵ περὶ τῆς κινήσεως καὶ τῆς μονῆς εἰρημένοι τρόποι πολλοὶ τυγχάνονται, none of the τρόποι actually discussed favors movement, and it seems astonishing to see Aristotle conclude his criticism of the reasons given for μονή and turn to a fundamental principle in a sentence which reads (294b 30ff.): ὅλως δὲ πρὸς τοὺς οὕτω λέγοντας περὶ τῆς κινήσεως οὐ περὶ μορίων ἐστὶν ἡ ἄμυναβήτητης, ἀλλὰ περὶ ὅλου τινὸς καὶ παντὸς. None of the thinkers examined has spoken περὶ τῆς κινήσεως but the nature of κίνησις is the ὅλον καὶ πᾶν regarding which Aristotle finds himself at variance with these thinkers and which must be clarified before convincing explanations about the specific question of the Earth’s remaining at rest can be advanced 14). The sentence immediately following makes this clear: ἐξ ἀρχῆς γὰρ διοριστέων πότερόν ἐστὶ τις τῶν σώματι φύσει κίνησις ἢ ὀδηγία, καὶ πότερον φύσει μὲν οὐχ ἐστι, βία δ᾽ ἐστιν. Since this point of principle has been settled earlier and is in fact essential for Aristotle’s entire cosmic system, he only needs to reaffirm the basic doctrines concerning natural movement and natural places of the elements (294 b 34–295 a 9). As a description of the issue at stake, the words περὶ τῆς κινήσεως which disturb us in 294 b 31 are perfectly correct. That explanations of prima facie obscure expressions are at a later stage of the transmission incorporated in the text is a familiar phenomenon 15).

In later passages of this chapter where Aristotle develops the implications of his tenets regarding natural movements two

14) Not astonishingly, even skillful translators find it difficult to do justice to the phrase περὶ ὅλου τινὸς καὶ παντὸς. Simplicius’ exegesis is worth noting: πρὸς τοὺς οὕτω λέγοντας περὶ τῆς κινήσεως τῆς γῆς ὡσ οὖν ἐχόνα της κινήσεως (526.10f. Heib.).

15) A passage where something similar has happened and where the intrusion of the explanatory remark into the text has likewise so far escaped detection is de part. anim. IV 5, 678 a 28ff. Aristotle passes from the treatment of the blooded to that of the bloodless animals. The first major difference is ὅθεν γὰρ τὴν τῶν σπλάγχνων ἄττασαν οὐκ ἔχει φύσιν. He continues: ὁμοίως δ᾽ οὐδὲ τῶν ἄλλων ἁναίμων οὐδέν... ἐξ οὗ γὰρ συνέστηκαν ἢ τῶν σπλάγχνων φύσιν, οὐδέν τούτων ἔχει [αἷμα] διὰ τό τῆς οὐσίας αὐτῶν εἰναι τι τοιοῦτον πᾶθος [αὐτῆς secl. Peck]. That some animals are ἄναιμα others ἄναιμα is included in their οὐσία. Here too αἷμα is the correct explanatory comment of a reader who could not wait for Aristotle himself to identify the substance of σπλάγχνα. I take a similar view of Pol. II 5, 1263 a1 τὰ περὶ την κτήσιν.
Emendations in Cosmological Texts

passages seem capable of improvement. I offer my suggestions with less confidence than at 294b 31. Both passages relate to the vortex or eddy (δύνη or δύνηςις), the theory so popular with the later Presocratics. In Aristotle’s view it is misconceived since it introduces an “outside” factor and explains by “force” a behavior that is in the nature of the elements. 295 a 9–12: ὡστε εἰ βία ἢ γη μένει, (which Aristotle does not consider true), καὶ συνήλθεν ἐπὶ τὸ μέσον φερομένη διὰ τὴν δύναμιν ταῦτην γὰρ τὴν αἰτίαν πάντες λέγοντα ἐκ τῶν ἐν τοῖς ὑγροῖς καὶ περὶ τὸν ἀέρα συμβαίνοντων (λαμβάνοντες). The added participle provides support for the otherwise rather floating words ἐκ…συμβαίνοντων.

The other passage is 295 b 3–6: ἀλλὰ μὴν οὐδὲ τῇ δύνῃ γε τὸ βαρὺ καὶ τὸ κούφον (δι’ κόρωντα, ἀλλὰ τῶν πρότερον ὑπαρχόντων βαρέων καὶ κούφων τὰ μὲν εἰς τὸ μέσον ἔχεται, τὰ δὲ ἐπιστάλεις διὰ τὴν κίνησιν. Neither the idea that the vortex “defines” heavy and light (scil. by their different reactions to it) nor Aristotle’s rejection of this idea would be inconceivable or pointless but the question at issue here is not their definition but the separation and the movement in opposite directions of heavy and light elements; see the concluding remarks 295 b.6ff.: ἢ ἄρα καὶ πρὶν γενέσθαι τὴν δύνην βαρὸν τέ καὶ κούφον, ἀ τίνι διώριστο καὶ πῶς ἐπερύθηνε φέρεσθαι ἢ πού; ἀπειρον γὰρ ὅτις ἀδύνατον εἶναι ἄνω ἢ κάτω, διώρισται δὲ τοῦτος τὸ βαρὺ καὶ κούφον.

de caelo III 1, 300a 14. In the course of his extended polemic against Plato’s construction (in Tim. 52) of the regular solid bodies from planes (ἐπίπεδα) Aristotle argues that if Plato were right it would be possible to resolve solid bodies into planes, planes on the same principles into lines, and lines (γραμμαί) into points (στιγμαί, 300a 7–10ff.), but at this final stage there would no longer be a body since points have no extension. The idea underlying this reductio ad absurdum is that just as points which have no extension cannot compose a line, lines cannot build up planes or planes bodies. By the same method, Aristotle continues in 300a 12, time could also be dissolved: καὶ ὅθε τοῦτος καὶ εἰ ὁ χρόνος ὁμοίως ἔχει, ἀναιρεῖ ἢ ἀν ποτε ἢ ἐνδέχεται νὰ ἀναρέθῃ τῷ γὰρ νῦν τὸ ἀτόμον οἷον στιγμῆ γραμμῆς ἐστὶν. On the meaning of this sentence some light is shed by the disquisitions in Physics IV concerning the relation of the “now” to “time”. The thought most relevant for the passage in de caelo is that the νῦν is not a “part” (μέρος) of time in the sense that a stretch of time could be composed of “nows”: τὸ δὲ νῦν οὐ μέρος· μετρεῖ τε γὰρ τὸ μέρος, καὶ συγκείσθαι δεῖ τὸ ὄλον ἐκ τῶν μερῶν.
In de caelo 300a 14 we understand that in the hypothetical destruction of time the νῶν would be the final stage of the process in which extension is no longer present. In this respect it does correspond to the στιγμή, which, as we have learned, is the last stage in the resolving of bodies (στιγμὰς μόνον ἐίναι, σῶμα δὲ μηθὲν, 300a 12) – and the last stage in the reductio ad absurdum of Plato’s scheme. But to compare the νῶν in this argument to “a point of a line” fails to bring out its function in the structure – or the destruction – of time. If Aristotle in this brief reference to a possible similar “analysis” of time wished to make clear what part the νῶν plays in his thought experiment he is more likely to have referred to it as οἶον στιγμή χρόνου, “a point of time, as it were”.16

De caelo III 2, 301a 5 f.: Some cosmological systems including the Timaeus embody the assumption of “disorderly motion” before the formation of the Cosmos. After pointing out various difficulties or fallacies inherent in this assumption Aristotle comes forward with the following argument: ἐτι τὸ ἀτάκτως οὐδὲν ἔστιν ἐτερον ὡς τὸ παρὰ φύσιν ὡς γὰρ τάξις ἡ οἰκεία άισθητῶν φύσις ἐστίν. ἀλλὰ μὴν καὶ τούτο ἀτοπον καὶ ἀδύνατον, τὸ ἀτειρὸν ἀτακτὸν ἐχειν χάνησιν. The translators are at one in giving the word ἀτειρόν a temporal sense (“disorderly movement, infinitely continued”, Stocks; “disorderly motion continuing infinitely” Guthrie; “un mouvement désordonné infini”, Moraux). That we need this sense becomes evident in the sentences immediately following: ἐτι γὰρ φύσις ἐκείνη τῶν πραγμάτων οὐν ἐχει τὰ πλεῖο καὶ τὸν πλεῖο χρόνον’ συμβαίνει οὐν αὐτοῖς τόναντιον τὴν μὲν ἀταξιαν εἶναι κατὰ φύσιν, τὴν δὲ τάξιν καὶ τὸν κόσμον παρὰ φύσιν καὶ τοῖς ὡς ἐνυχθείς γίνεται τῶν κατὰ φύσιν (a7–11). But prior to 301a 6 we read of the ἀτειρον (300b 31; cf. 10), ἀτείρων κινούμενα and κινούμαι (300b 31f.; 33f.), ἀτείρωνος φορὰς (301a 1) and it is not easy all at once and without any warning to shift to a temporal sense. Simplicius’ paraphrase:

16 Cf. also for the parallel place of the νῶν in time and the στιγμή in a body Phys. IV 11, 220a 5 ff., esp. 9–11, and 18 ff.: καὶ ἐτι φανέρων ὡς οὐδὲν μόνον τὸ νῦν τοῦ χρόνου.... ὡσπερ οὖθ’ ἡ στιγμὴ τῆς γραμμῆς. The point is not a “part” of the line. The phrasing of this passage which outwardly resembles that in de caelo does nothing to support the reading of the Mss. True support is provided by Simplicius’ commentary in de caelo (579.16 Heib.) where οἶον στιγμὴ γραμμῆς ἐστίν is quoted. This may cause hesitation, at least before one remembers that there are errors common to the Mss and late ancient commentators.
...ἀτομον καὶ ἀδύνατον τὸ ἀτείφον ἐν ἀτείφοις χρόνοι ἀτακτὸν ἔχειν κίνησιν (589. 11) sets us wondering whether he knew two readings, τὸ ἀτείφον and τὸ ἀτείφον χρόνον? Or two interpretations of the word ἀτείφον in 301a 7? And did he conflate either the readings or the interpretations? Without indulging longer in such speculations we may as well decide to introduce the necessary but far from obvious temporal meaning by the addition of the crucial word: τὸ ἀτείφον (χρόνον) ἀτακτὸν ἔχειν κίνησιν. An alternative change: τὸ ἀτείφον (χρόνον τὸ ἀτείφον) ἀτακτὸν ἔχειν κίνησιν may also have its attractions but I see no need for making the ἀτείφον the grammatical subject for the disorderly movements 17).

Metaph. A 2, 1069 b 20 ff. γένεσις, as Aristotle here once again sets forth comes to pass ἐκ μιᾷ ὄντος as well as ἐκ ὄντος; for the matter from which a particular object arises exists as an ὄν but with reference to what develops from it this existence is only potential, not actual (...ἐκ ὄντος γίγνεται πάντα, δύναμις μέντοι ὄντος, b 19 f.). What follows reads in Ross’s edition (Oxford, 1924): καὶ τοῦτ’ ἐστὶ τὸ Ἀναζηροῦν ἐν βέλτιον γὰρ ἢ ἀρκετῷ πάντα — καὶ Ἐμπεδοκλέους τὸ μήγα καὶ Ἀναξιμάνδρον, καὶ ὡς Δημόκριτος φησιν — ἢν ὅμοιό πάντα δύναμις, ἐνεργείᾳ δ’ οὖν’. ὡστε τῆς ὑλῆς ἄν εἰπεν ἡμένοι. The grammatical subject for εἰπεν ἡμένοι is of course the Presocratic thinkers previously referred to.

Jaeger’s text (Oxford, 1957) differs from Ross’s in having ἢν μὲν πάντα δύναμις, ἐνεργείᾳ δ’ οὖν instead of ἢν ὅμοιο πάντα... μὲν is Jaeger’s own conjecture for ἡμίν, the reading common to all Mss, except that E, one of the two leading codices has also ὅμοιο with the addition of γρ. ὅμοιο has enjoyed an astonishing favor with the editors until Jaeger pointed out that it stands in the way of what Aristotle means to say 18). His μὲν which is probably the best correction of the impossible ἡμίν removes one difficulty but others remain. If Aristotle here as so often makes the point that the Presocratics have grasped the material principle (or the

17) On the text of de caelo III 4, 303 a 16 where after ἀτείφον τὰ σχήματα (scil. of the atoms for the Abderites, a11 f.) I propose to read: ὅς ὀδοὺν ἀντίχ (ἀντίχ Mss.) τὴν φύσιν οἶνον πανσειμιάν πάντων τῶν στοιχείων, see Phroneis 22 (1977), 278 n. 59.

18) non omnia ‘potentialiter mixta’ fuisse sed omnia ‘potentialiter extitisse’ mavult Ar[istoteles] explains Jaeger in the apparatus ad loc. All I could add is that it is hard to imagine what meaning Aristotle might have associated with ὅμοιο πάντα δύναμις. At b 29 ff. he declares the ὅμοιο to be inadequate. Not this but the existence δύναμις is his idea of ὑλῆ. Everything may be visualized in a state of potentiality before it actually comes to be.

2 Rhein. Mus. f. Philol. 124/1
material cause), it can hardly be right to place most of their doctrines between dashes, a device whose use in our texts frequently makes one wonder whether there was anything analogous to help the Greek readers. Moreover granting that the sentence ἐὰν μὲν πάντα ... ὅπως ὁδὲ represents Aristotle's own position and that it is pointed especially but, after ὅμοιο is removed, no longer exclusively against Anaxagoras, the passage embodies two thoughts whose mutual relation is far from comfortable. One of these thoughts is that the Presocratics were headed for the material principle; this would be expressed as follows: καὶ τοῦτ' ἐστι τὸ Ἀν. ἐν [βέλτιον γὰρ ἦν ὁμοῖο πάντα] καὶ Ἐμπ.... φησιν [ἂν μὲν ... ὅπως], ὡστε τῇς ὠλης ἤν εἶν ἡμένοι, ὠλης being for Aristotle in this context equivalent to potentiality. The second thought is to be found in the clauses that I have bracketed for the reconstruction of the first: βέλτιον γὰρ ἦν ὁμοῖο πάντα "ἂν μὲν πάντα ..." To avoid the awkward interruption of one thought by parts of the other I suggest transposing the words βέλτιον γὰρ ἦν ὁμοῖο πάντα to the more appropriate place immediately before "ἂν μὲν πάντα....." What results: βέλτιον γὰρ ἦν ὁμοῖο πάντα "ἂν μὲν πάντα δυνάμει, ἐνεργεία ὅπως" may easily be an afterthought of Aristotle noted down in the margin (or whatever corresponded to it)19); when incorporated in the text, the note was split, perhaps by accident, perhaps owing to a misunderstanding of someone who took the words βέλτιον γὰρ ἦν "ὁμοῖο πάντα" to show that Aristotle preferred a simple ἐν to the more familiar description of the initial state of things in Anaxagoras20).

Diog. Lart. III 73. Is it really the case that the necessary addition of one word in the report about Plato's doctrines: χρόνον τε γενέσθαι εἰκόνα τοῦ ἄλοιπον ἀλὼνος has not yet been suggested? Cf. Pl., Tim. 37 d 5.

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19) Cf. e.g. Moraux's remarks about "Nachträge." AGPh 43 (1961), 37ff. and Jaeger in the praefatio to his edition XVIIff.

20) The somewhat unusual descriptions which Aristotle in this passage offers for the initial state of some Presocratics – Anaximander's μῦμα, Anaxagoras' ἐν – are satisfactorily accounted for by Ross, ad loc. – Consideration might be given to the possibility that the "afterthought" is rather the passage which Ross and Jaeger place between dashes. This is less likely because as the last sentence quoted shows Aristotle has in mind more than one Presocratic.