

Ancient Commentators on Aristotle

GENERAL EDITOR: RICHARD SORABJI

PHILOPONUS: Against Proclus On the Eternity of the World 9–11

Translated by
Michael Share

B L O O M S B U R Y



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Against Proclus
On the Eternity of
the World 9-11

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B L O O M S B U R Y
LONDON • NEW DELHI • NEW YORK • SYDNEY

Bloomsbury Academic
An imprint of Bloomsbury Publishing Plc

50 Bedford Square
London
WC1B 3DP
UK

1385 Broadway
New York
NY 10018
USA

www.bloomsbury.com

Bloomsbury is a registered trade mark of Bloomsbury Publishing Plc

First published in 2010 by Gerald Duckworth & Co. Ltd.
Paperback edition first published 2014

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British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

ISBN HB: 978-0-7156-3859-0
PB: 978-1-4725-5788-9
ePDF: 978-1-4725-0025-0

Library of Congress Cataloging-in-Publication Data

A catalog record for this book is available from the Library of Congress.

General Editor's Acknowledgements

The present translations have been made possible by generous and imaginative funding from the following sources: the National Endowment for the Humanities, Division of Research Programs, an independent federal agency of the USA; the Leverhulme Trust; the British Academy; the Jowett Copyright Trustees; the Royal Society (UK); Centro Internazionale A. Beltrame di Storia dello Spazio e del Tempo (Padua); Mario Mignucci; Liverpool University; the Leventis Foundation; the Arts and Humanities Research Council; Gresham College; the Esmée Fairbairn Charitable Trust; the Henry Brown Trust; Mr and Mrs N. Egon; the Netherlands Organisation for Scientific Research (NWO/GW); the Ashdown Trust; Dr Victoria Solomonides, the Cultural Attaché of the Greek Embassy in London.

The editor wishes to thank Pamela Huby, Robert Todd, Edward Hussey, and William Charlton for their comments, Fiona Leigh for preparing the volume for press, and Deborah Blake at Duckworth, who has been the publisher responsible for every volume since the first.

Typeset by Ray Davies.
Printed and bound in Great Britain

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Introduction

Richard Sorabji

Books 9 to 11 of Philoponus' *Against Proclus* constitute one of the most interesting parts of one of the most interesting philosophical treatises of late Greek antiquity. Philoponus' thought was independent of traditional authorities even when he was writing commentaries on Aristotle,¹ let alone when he was writing an explicit attack on the authority of Proclus, and rejecting his eighteen arguments for the beginningless existence of the universe. As a Christian, Philoponus used the ideas of Platonists like Proclus and of Aristotle to show that the pagan Greek philosophers should really draw the opposite of their own conclusion. They should concede the Christian view that the universe was created out of nothing and therefore had an absolute beginning. This work of Philoponus in Alexandria was written in 529 AD against a treatise of the Athenian Neoplatonist Proclus from the preceding century.

In Book 9 and the very short Book 10, Philoponus discusses some of Proclus' arguments against creation out of nothing. But Book 11 is particularly interesting, because there Proclus' argument against creation out of nothing turns on Aristotle's idea of prime matter. A body, for Aristotle, was a subject endowed with properties, and prime matter was the most fundamental subject of those properties. It could only be imagined by stripping away in thought all the properties of a body, and thinking of the subject of all its properties. This at any rate is the concept of prime matter which Philoponus thinks Proclus inherited from Aristotle² and which he ridicules and seeks to replace with his own very innovative alternative. In the seventeenth-century English tradition, John Locke still talked (under another name) of Aristotelian prime matter as a 'something-I-know-not-what'.

To return to Book 9, an infinite regress argument for a beginningless universe is stated and answered at 339,2-341,23. The argument had been announced in 314,13-15. It is a variant on Aristotle's argument about matter that will be considered in Book 11. Everything that comes into being does so from something that was already in being. So the universe as a whole (*kosmos*) cannot have come into being. For if one tries to imagine it doing so, one will find something

earlier from which it came into being, and the need for pre-existing matter will confront one in an infinite regress, however far back one goes in one's imagination.

Philoponus replies, starting at 339,25, that, even on Aristotelian theory, nature engenders in pre-existing matter particular forms that did not exist before, for example particular forms of flesh, bone, blood vessels and sinews, when it brings into being a baby, as Aristotle thinks, out of menstrual fluid. But God must be able to do more than nature. Hence he must be able to bring into being previously non-existent matter as well as form. This means that he could produce the whole universe without producing it from something that was already in existence.

Part of Philoponus' reply was translated into Arabic, and there wrongly ascribed to someone much earlier than Philoponus around 200 AD, the great Aristotelian defender and commentator, Alexander of Aphrodisias. But the correct re-assignment to Philoponus was made by Ahmad Hasnawi.³

In Book 11, at 445,28-452,4, Philoponus opposes another version of Aristotle's regress argument, this time a version that concentrates more fully on the idea of matter. The argument is that matter exists in order to make generation possible and co-exists with generation. But matter (and hence generation, and hence the universe) can have had no beginning. For the generation of matter would require prior matter. The last point is explicitly ascribed to Aristotle.⁴

A further point is also ascribed to Aristotle both here and in two later works by Philoponus, that it is not possible for generation to pass through an infinite number of stages.⁵ Very clearly in the two later texts, and more obscurely here at 448,21-449,13, Philoponus seeks to draw the opposite conclusion from Aristotle's. His retort is that if something comes into existence now, it cannot, on Aristotle's own principles, be the product of an infinite chain of ancestors, and hence the preceding chain of events must have been finite and have had a beginning.

It is Philoponus' next point that concentrates more closely on the role of matter (449,13-452,4). The Christian postulate that matter was at some time created does not threaten to give us an infinite regress of prior matter out of which it would need to be created. For any kind of matter, say bronze or water, is generated not out of bronze or water, but out of something *other* than bronze or water. It is only with the *efficient* cause that cause and effect are of the same kind, as when a human begets a human. But we are talking about the *material* cause, that *out of* which something is created. Babies are created not out of babies, but, on Aristotle's view, out of menstrual fluid, plants out of soil and water, fire out of air (gas), scientists out of non-scientists. This conclusion should be applied to the most fundamental kind of matter, prime matter viewed in separation from

any properties. For it too there will not be any earlier prime matter out of which it needs to be created.

Further, matter *is* a subject of properties and does not have its existence *in* a subject. That also shows why it does not need a pre-existing subject or matter in order to come into being.

The concern of Philoponus' opponents with *matter* in their arguments in Book 11 for beginningless existence gives Philoponus the opportunity to introduce his own radical view of prime matter.⁶ Prime matter is the ultimate subject of a body's properties. Philoponus' view had developed over time and is here seen in its most revolutionary form. Prime matter is now for him neither incorporeal, nor formless, which Aristotle's prime matter was conceived as being. Aristotelian prime matter was thought of as the subject that takes on first three dimensions, and then, super-imposed on these three dimensions, various other properties. In itself it had no properties at all and was formless and not a body, since any body is prime matter endowed with properties. But why, asked Philoponus (405,9-406,14; 413,27-415,10; repeated at 426,22; 428,2,23-5; 435,20; 442,19-20), should not the most fundamental subject of properties be the three dimensions themselves, albeit⁷ viewed without any specification of measurements? At least the three dimensions are familiar, unlike Locke's 'something-I-know-not-what'.

Moreover, why should not three-dimensional extension be form as well as matter (423,9-428,25)? It is the form of body (427,8; 435,21), or in other words its defining characteristic, as well as being the prime matter of body. For provided we can distinguish spatial extension from corporeal extension,⁸ three dimensions will constitute the defining characteristic of body. Thus prime matter is neither incorporeal nor divorced from form, as Aristotle's prime matter was supposed to be. It can be called body.⁹ Moreover, if it is the form, it is also the substance (424,24; 425,5-6) of body.

It might be thought that the three dimensions would be classified by Aristotle under the category of quantity, not under the category of substance. But, as Frans de Haas has shown, correcting Sorabji, Philoponus takes a leaf from the book of another earlier Neoplatonist, Porphyry.¹⁰ Porphyry had considered the status of those qualities that served as the differentiae of types of substance. An example might be rationality, if this differentiates humans from other types of animal. Because such a differentiating quality would enter into the definition of a substance, mankind, Porphyry classified it as a *substantial* quality. Philoponus suggested that the three dimensions should be classified not as a mere quantity, but as a *substantial quantity* (405,23-7; 423,11-424,11). This confronted the difficulty that might otherwise be felt about calling the three dimensions the *substance* of body.

I have elsewhere argued that Philoponus' approach to treating the

three-dimensional as prime matter was by a very different route from that taken by his Stoic predecessors to a somewhat similar conclusion.¹¹ Nonetheless, he himself recognises the Stoics as coming to a view like his own (410,1-3; 414,4-5).

Simplicius, the Athenian Neoplatonist and arch-enemy of Philoponus, treated prime matter as a dispersed extension. But in doing so, he did not agree with Philoponus that it was a three-dimensional extension. On this Pantelis Golitsis has made a correction to Sorabji and De Haas.¹² Simplicius is not content to deny Philoponus' view that the extension which constitutes prime matter is body.¹³ For Simplicius prime matter is not only incorporeal, but also formless. To call it three-dimensional is to connect it too closely with *form* which limits dispersal, whereas, in Simplicius' view, prime matter is at the opposite extreme from the divine One from which all form derives. Simplicius attacks Philoponus' account by name in his commentary on Aristotle *On the Heavens*, and with name suppressed in his *Physics* commentary.

I have elsewhere traced later analogues of Philoponus' conception of prime matter and body, up to the idea in modern physics that at the sub-atomic level it is often better to think in terms of a field endowed with properties.¹⁴

Notes

1. Christian Wildberg, 'Impetus theory and the hermeneutics of science in Simplicius and Philoponus', *Hyperboreus* 5 (St Petersburg 1999), 107-24; Pantelis Golitsis, *Les commentaires de Simplicius et de Jean Philopon à la Physique d'Aristote: tradition et innovation*, Berlin 2008, 184-7.

2. Especially Aristotle *Metaphysics* 7.3, 1029a10-27 and *Physics* 4.2, 209b6-11.

3. Ahmad Hasnawi, 'Alexandre d'Aphrodise vs Jean Philopon: notes sur quelques traités d'Alexandre "perdus" en grec, conservés en arabe', *Arabic Sciences and Philosophy* 4, 1994, 53-109.

4. See Aristotle *Physics* 192a25-34.

5. Philoponus appeals to Aristotle *On Coming-to-be and Passing-away* 332b31-333a15 not only here but also in Book 3 of his *Against Aristotle* recorded by Simplicius at *in Phys.* 1178,15-33 and in Book 6 of a very similar lost text summarised in Arabic and translated by S. Pines, 'An Arabic summary of a lost work of John Philoponus' in his *Studies in Arabic Versions of Greek Texts and in Mediaeval Science*, Hebrew University, Jerusalem and Brill, Leiden, 1986, 331. Discussion in Richard Sorabji, *Time, Creation and the Continuum*, London 1983, 228-9.

6. Richard Sorabji, *Matter, Space and Motion*, London 1988, chs 1-3, 3-43; *The Philosophy of the Commentators 200-600 AD, A Sourcebook*, vol. 2, *Physics*, London 2004, ch. 17; Frans de Haas, *John Philoponus' New Definition of Prime Matter*, Leiden 1997.

7. Philoponus *Against Proclus* 405,26; 424,10.16.24.

8. On this problem see Sorabji *Matter, Space and Motion*, 26.

9. Philoponus *Against Proclus* 405,11.16.19; 412,16.28; 413,2.6-7;

414,16.22; 415,2.4.7.17-18; 417,22.26; 418,7.25; 419,3; 421,11.20-1; 424,18-19; 426,21-2; 442,17.

10. Porphyry in *Cat.* 95,17-20, translated in Sorabji, *The Philosophy of the Commentators 200-600 AD: A Sourcebook*, vol. 3, Logic & Metaphysics, ch. 3, w(2). The history is explained by Frans de Haas, correcting Sorabji, in *Philoponus' New Definition*, 172-80.

11. Sorabji, *Matter, Space and Motion*, 36-8.

12. Simplicius in *Cael.* 135,26-136,12; in *Phys.* 227,23-233,3. See Golitsis, *Simplicius et Jean Philopon à la physique d'Aristote*, Berlin 2008, 127-39, esp. 134 n. 108.

13. Simplicius in *Phys.* 201,25-7; 228,17-230,33; 232,8-13; cf. 230,21-7.

14. Richard Sorabji, *Matter, Space and Motion*, London 1988, ch. 3.

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Translator's Note

Like previous translations of parts of this work in this series,¹ this translation is made from Rabe's 1899 Teubner edition, the only modern critical edition of the Greek text. Departures from Rabe's text, many of which are based on Rabe's own suggestions in the critical apparatus, are mentioned in the notes² as they occur and listed separately in front of the translation, but neither they, nor Rabe's own departures from the manuscripts, are identified in the translation itself. Words in square brackets in the translation do not occur in the Greek but have been inserted to clarify the sense. Transliterated Greek words are occasionally added in round brackets when it is thought their presence may help the reader.

The single manuscript on which our knowledge of the Greek text of Philoponus' work is based is incomplete at either end, and the original title of the work is quite uncertain. I discussed the ancient references to the work and the status of Rabe's Latin title, on which the English title on the title-page of this volume is based, in the introduction to my translation of its first five chapters in this series, to which I refer the reader.³ In this introduction and in the notes to the translation I shall refer to Philoponus' work as *Aet.*, an abbreviation based on the Latin title.

In my translations of *Aet.* 1-5 and 6-8 I remarked⁴ that it was an open question whether the section summaries that precede each chapter of *Aet.* were written by Philoponus himself. I have since observed that the wording of the only clear reference that Philoponus' enemy and contemporary Simplicius makes to *Aet.* shows that he knew these summaries, which dates them to Philoponus' lifetime and makes it highly likely that he wrote them.⁵

Aet. as a whole has not attracted as much scholarly interest as it deserves, but ch. 11, in which Philoponus introduces and argues for a new conception of prime matter, is something of an exception. Here we have important contributions from Wolff and Sorabji and a monograph from De Haas.⁶ In addition to much else, the last of these contains a translation of Proclus' eleventh argument⁷ to add to those referred to in my earlier volumes⁸ and translations of a number of passages from Philoponus' reply.⁹

In the introductions to my translations of chs 1-5 and 6-8 I dis-

cussed the translation of some of the key terms in *Aet.* and listed my translation decisions in each case. These terms were: *theos*, *kosmos*, *ouranos*, *to pan*, *aiōnios*, *aīdios*, *aīdiotēs*, *sunādiotēs*, *aei*, *dēmiourgōs*, *dēmiourgein*, *dēmiourgēma*, *dēmiourgia*, *dēmiourgikos*, *ginesthai*, *genesis*, *genētos*, *pheiresthai*, *phthora* and *phthartos*. Despite occasional second thoughts, and in some instances the promptings of a vetter, I have thought it best to stick to those decisions here.¹⁰ I discuss the translation of a number of other words in the notes, usually at their first occurrence.

I would like to thank William Charlton, Pamela Huby, Edward Hussey and Robert Todd, who each read part of a draft of the translation and made many valuable suggestions, Fiona Leigh of the Ancient Commentators on Aristotle Project, who was a conscientious and supportive editor, and Richard Sorabji for again contributing a preface identifying some of Philoponus' more acute and philosophically interesting arguments.

Notes

1. M. Share (tr.), *Philoponus Against Proclus On the Eternity of the World 1-5* (London, 2005); M. Share (tr.), *Philoponus Against Proclus On the Eternity of the World 6-8* (London, 2005); J. Wilberding (tr.), *Philoponus Against Proclus On the Eternity of the World 12-18* (London, 2006).

2. Where they are always identified by the phrase 'as suggested by Rabe'.

3. *Philoponus: Against Proclus On the Eternity of the World 1-5*, 1, especially in n. 3.

4. In both cases in the first note to the translation.

5. See Simplicius, in *Cael.* 135,26-32. The key phrase is *tēn mutheuomenēn asōmatōn kai aneideon hulēn* ('fabulous incorporeal and formless matter'), which is taken virtually verbatim from the section summary to 11.8 and which does not occur in the section itself (indeed *mutheuomenos* does not occur anywhere else in *Aet.*). Simplicius notoriously goes on to say that he hasn't been able to bring himself to delve into *Aet.* and has no wish to do so, and in fact everything that he says about it could be based on this section summary and the one to 11.3.

6. M. Wolff, *Fallgesetz und Massebegriff: zwei wissenschaft-historische Untersuchungen zur Kosmologie des Johannes Philoponus* (Berlin, 1971); R.R.K. Sorabji, *Time, Creation and the Continuum* (London and Ithaca, NY, 1983); F.A.J. de Haas, *John Philoponus' New Definition of Prime Matter: Aspects of its Background in Neoplatonism and the Ancient Commentary Tradition* (Leiden, etc., 1997). Other literature in De Haas, xii-xvi and Bibliography.

7. pp. 2-3.

8. *Philoponus Against Proclus On the Eternity of the World 1-5*, 10 n. 5 and *Philoponus Against Proclus On the Eternity of the World 6-8*, 4 n. 2.

9. Listed on p. 317.

10. Exceptions are *kosmos*, for which, following Wilberding, I have used 'cosmos' rather than 'world' and *phthora*, which I occasionally translate 'perishing'.

Departures from Rabe's Text

Emendations other than my own, all of which are based on Rabe's critical apparatus, are credited. 'Plato' means the manuscript tradition of Plato himself; 'p' is a copy of M, the manuscript on which Rabe based his text, which he also consulted; 't' is the first printed edition of *Aet.*; 'Rabe' identifies suggestions that Rabe makes in the apparatus but does not incorporate in the text.

- 315,8 Changing *te* to *ge* (Rabe).
- 315,17 Changing *ti* to *touto*.
- 315,26 Changing *proüparkhein* to *proüparkhei* (Rabe).
- 320,6 Adding *kata* before *ton* (Rabe).
- 320,24 Translating *ouk elakhiston. pôs dê; dei* (Plato) rather than *oun hôs elakhiston dê. dei*.
- 321,4 Translating *ei* (Plato) rather than *êd'*.
- 323,12 Deleting *pros tou* and adding *tous* after *hêrôôn* (Rabe).
- 324,1 Punctuating with a question mark after *agriôteron*.
- 324,4 Punctuating with a question mark after *asebeian*.
- 324,16 Deleting *kai* before *proteron* (Rabe).
- 326,26 Adding *helkonta* after *paidas*.
- 328,13 Deleting *hôs*.
- 328,14 Adding *gignôskoi de* (Rabe).
- 328,15 Transposing *hekastos* and *hôs*.
- 328,17 Changing *ou têi* to *têi autêi ou*.
- 328,18 Deleting *kai tên polin kai tous arkhontas*.
- 330,11 Deleting *epi têi*.
- 333,22 Changing *ametylêton* to *metablêton*.
- 339,12 Changing *genêton* to *agenêton*.
- 343,18 Punctuating with a semicolon after *hekaston*.
- 344,3 Changing *ginesthai* to *analuesthai* (Rabe).
- 349,13 Deleting *ê ouk eisin*.
- 351,3 Changing *ekhei* to *ekhoi*.
- 352,25 Changing *sôizomenou* to *sôizomenon*.
- 353,4 Changing *oukhi* to *oukh hê* (Rabe).
- 354,28 Adding *ê auxêtikês* after *threptikês*.
- 355,11 Punctuating with a full stop after *estai*.

- 355,24-5 Repositioning *legô dê holotêtos leukou sômatos ê glukeos ê sarkos ê tôn allôn tinos* to follow *sômatos* at 355,22 (Rabe).
- 359,8 Changing *khôrista* to *akhôrista*.
- 360,20 Deleting *sôma*.
- 361,5 Changing *eita* to *êtoi* (**p** & **t**).
- 361,6 Changing the first *hê* to *ê*.
- 363,12 Deleting first or second *autên* (Rabe).
- 365,1 Adding *monês* before *tês hulês*.
- 365,2 Changing *to eidos monon khôris geneseôs huphistamenon* to *tou eidous khôris geneseôs huphistamenou*.
- 365,3 Changing *apollumenon* to *apollumenou*.
- 370,9 Changing *peri* to *epi* (Rabe).
- 370,20 Adding *oikias ê tês* after *tês* (Rabe).
- 374,2 Deleting *touto* (Rabe).
- 374,4 Changing *auto* to *en autôi*.
- 374,24-5 Changing *hêi zôion kai hêi aisthêsis* to *hê zôê kai hê aisthêsis*.
- 376,1-2 Closing the parenthesis after *loipa* rather than after *apotelesma*.
- 377,18-19 Changing *epei d', an tis kai pros toutois hôs malista menei, dedeiktai* to *eipoi d'an tis kai pros toutois malista men hôs ei dedeiktai*.
- 379,23 Deleting *hama*.
- 381,11 Changing *apolipon* to *apolipein*.
- 382,6 Deleting the comma after *mê*.
- 384,9 Adding *hê* before *eirêmenê* (Rabe).
- 384,19-20 Changing *to dekaton* to *ho dekatos* (Rabe).
- 384,25 Deleting *ho* (Rabe).
- 385,1 Deleting *mê*.
- 387,25 Changing *legein* to *lêmmatôn* (Rabe).
- 388,4 Adding *oikeios* after *estin* (Rabe).
- 389,1 Changing *ametablêtôs* to *ametablêtôn* (Rabe).
- 393,28 Adding *ei* after *eiê* (Rabe).
- 394,1 Changing *metaballein* to *metaballei* (Rabe).
- 394,8 Changing *katholou stoikheîôn auto* to *stoikheîôn kath' holon auto*.
- 396,22 Adding *mê* before *prokekratêmenous* (the vetter).
- 397,21 Adding *ta* after *panta* (Rabe).
- 399,19 Adding *einai* before the second *kuklôi* (the vetter).
- 399,26 Changing *zêtêsômen* to *zêtêsomen*.
- 403,15 Changing *heneka tou* [circumflex on 'u'] *pantos* to *heneka tou* [unaccented] *pantôs*.
- 406,17 Changing *sunkhôroumenôn* to *sunkhôroumenois*.
- 408,24 Deleting the second *tôn* (**p** & **t**).

- 412,16 Changing *oromenos* to *hormômenos* (p & t).
 413,15 Changing *hupokeimenon* to *hupomenon*.
 413,26 Changing *pepoiôtai* to *peposôtai*.
 423,28 Deleting *aneu thermotêtos* (Rabe).
 428,24 Changing *laleîn* to *kaleîn* (Rabe).
 430,6-7 Closing the brackets after *prôtês* rather than after *ginetai*.
 430,8 Adding *diaphoras* after *allas* (Rabe).
 437,23 Punctuating with a full stop after *hulê*.
 439,5 Changing *eidopepoiêtai* to *eidopepoiêsthai*.
 440,14 Closing the parenthesis after *diastatou* rather than after *huphestêken*.
 441,9 Punctuating with a full stop after *aphthartos*.
 445,1 Changing *ekhôn* to *ekhein*.
 446,9 Changing *autôi* to *autêi*.
 447,4 Adding *ho kosmos* before *aïdios* (Rabe).
 450,18 Changing *edeêthêsan* to *edeêthê an* (Rabe).
 451,28 Adding *to* before *aïdion* (Rabe).
 453,11 Changing *haplôs* to *haploun* (Rabe).
 459,4 Changing *idiôn logôn* to *dialogôn* (Rabe).

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Translation

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<John Philoponus the Alexandrian's Against the
Arguments of Proclus Concerning the
Everlastingness of the World>

The Ninth Argument¹ of Proclus the Successor

The ninth [argument]: Everything that is destroyed² is destroyed 313,7
by its own evil,³ for it is certainly⁴ not [destroyed] by its own good
or by what is neither its own good nor evil but neutral; anything 10
of this last kind can neither harm nor benefit and so neither
destroy nor preserve.⁵

If, then, the universe should be destroyed, it will be destroyed by
its own evil. But he⁶ says⁷ that the cosmos is a blessed god, and that 15
all gods are likewise [blessed], and that the entire race of gods, being
on that account⁸ unreceptive of evil, is also unreceptive of change.
Therefore the universe, for which there is no evil – since it too is a god
– will not ever be destroyed.

And if the universe, because it has nothing that is able to destroy
it, is imperishable, it is not generated either. For it is that from which
a thing has its generation that is able to destroy it. When this is 20
controlled, it is a contributory cause⁹ in generation, when it has the
control, of destruction. And so if there is nothing to destroy it, it has
nothing from which it could have come to be either.

And in fact there *is* nothing to destroy it if it does indeed have no 314,1
evil. What would destroy it, given that it is an ordered [entity], other
than disorder or, given that it is [a] well-arranged [entity], other than
disarray?¹⁰ This,¹¹ after all, is the evil of things that are well-ar-
ranged and ordered.

So if it has any evil, it will have disarray and disorder, and will be 5
dissolved into these. But if it has no evil, there will be no disorder and
disarray battling with this ordered and well-arranged entity that is
the universe.

And if it has no disorder and disarray battling [with it], [then] nor 10
has it come to be out of some [state of] disarray and disorder, if there
is indeed nothing of that kind battling with it. And this is the case if
it has no evil.

Therefore it has nothing from which it could come to be. And,
there being nothing from which it could come to be, nor would it
come to be; for everything that comes to be must come to be from 15
something and it is impossible for anything to come to be from
nothing.

The Sections of the Refutation of the Ninth Argument

1. That it is neither philosophical nor [in line with] Plato's own thinking to put Plato above the truth.

20 2. That Plato is wide of the truth in many of his beliefs about the physical [world].

3. That in his ethical prescriptions too he often fell short of correctness. Including a demonstration that he legislates for the killing of certain newborn babies and for women to be held in common.

315,1 4. That when Plato says that the cosmos is a god, he is not engaging in theological speculation but following the popular poetic myths. Including [a demonstration] that Plato did not express his [true] opinions for fear of the Athenian democracy.

5 5. That it can be demonstrated from premises with which [our opponents] themselves have provided us that it is impossible for the cosmos to be a god. Including [a demonstration] that a thing which changes in its parts is not unchanging¹² [as a whole].

6. That the cosmos too is receptive of that deviation into a [condition] contrary to nature which is the cause of [their] perishing for things that perish.

10 7. That if it has been demonstrated that something is the cause of the destruction of the cosmos, it is, one supposes, necessary on Proclus' assumptions that this¹³ should also be that from which it came to be.

15 8. A difficulty: That nothing can come to be from absolute non-being¹⁴ and that therefore the cosmos too must be ungenerated.¹⁵

20 9. That it is not necessary that God, if he has indeed made a cosmos which did not previously exist, should have created¹⁶ it out of something already in existence¹⁷ in the way that each particular thing [in the universe] comes to be through nature, which draws matter from things [already] in being, but that it is, on the contrary, necessary that everything – its substrate as well as its form – be brought into being¹⁸ out of non-being by God.

25 10. That either they will, if they liken the generation of the universe to the generation of particular things, necessarily concede that the efficient cause of the cosmos pre-exists it, in the way that their cause pre-exists¹⁹ particular things, or, if the same does not follow for the generation of the whole as for the generation of particular things, then, given that particular things come to be from existing things, the whole must, if it has come to be, come to be from things without [any previous] existence (*ek mê ontôn*).

316,1

5 11. That nothing that comes to be comes to be from something [already] in being. Including [demonstrations] that while all things that come to be and perish are compounded of matter and form, there

is generation neither of the matter nor of the complex formed of the two but only of the form, and that all enmattered forms when they perish neither become matter nor migrate into another substrate nor resolve themselves into simpler elements nor return to some totality²⁰ of their own nor change into another form nor exist separately nor revert to potentiality but both cease to exist by perishing into absolute non-being and receive their generation out of absolute non-being. 10

12. A case [for the view] that enmattered forms neither come to be nor perish but either exist or do not exist without generation or perishing. 15

13. That even if it be conceded to be true that enmattered forms either exist or do not exist without generation or perishing, this is itself proof that the cosmos, if it has come to be, has come to be out of things without [prior] existence (*ek mê ontôn*)²¹ and not out of existing things. And that matter, if it has come to be, must also have come to be out of things without [prior] existence; and therefore the [combination] of the two [must have] as well. And so it may be inferred from this that everything that comes to be comes to be out of absolute non-being. 20 25

14. That it is *not* true that enmattered forms come into existence²² without [a process of] generation.

15. That just because the perfection of forms occurs instantaneously, one should not on that account do away with generation of forms. 317,1

16. That both in things that come to be through art²³ and those that come to be through nature there is generation only of form and not of matter. 5

17. That generation is strictly speaking not of the compound but of the form, and [only] incidentally of the compound too.

The Refutation of the Ninth Argument

10

1. Given that Plato, as has been repeatedly shown²⁴ in what precedes, so explicitly states that the cosmos has come to be and does not exist for ever, it is in my opinion very mischievous and not without a hint of sophistical malpractice to brush such clearly formulated statements aside and strenuously attempt to persuade²⁵ [the reader] on the basis of certain other positions²⁶ of Plato's that Plato does not believe that the cosmos is generated but that it is ungenerated. If there really were some position or other in Plato that refuted another statement of his, it would be characteristic of a reasonable person who gives preference to the truth to opt for whichever of the positions appeared sound and to dismiss the one that conflicted with it as untrue; for I do not think that it is the behaviour of a philosopher or of someone who abides by the precepts of Plato, who portrays²⁷ 15 20 318,1

Socrates himself saying that one should pay little heed to Socrates and much more to the truth, to consider that anything at all said by Plato is true, as though it were divinely inspired,²⁸ and for that
 5 reason try to argue that certain statements of the man which do not seem to be true were not even made. Would it be so strange if Plato, who was after all only human, is wide of the truth at some points? That this happened to him in many areas, including in his physical science itself (not to mention his views about God), is shown by the
 10 countless objections directed at him by, amongst others, Aristotle, and perhaps it will be no bad thing if we make mention of a few of them in the present context.

2. [First], although those of the highest repute in the area of astronomical investigation have shown that the sun occupies the
 15 middle planetary sphere²⁹ and this has won the approval of all who have come after them, Plato declares in the *Timaeus*³⁰ that it occupies the position next after the moon. Nobody with expertise in the mathematical sciences³¹ will deny that here at least he was in error. Second, following (*kata*) Pythagorean myth, he reclothes rational
 20 souls in the bodies of dumb animals.³² Admittedly, Proclus himself, along with many others,³³ sees fit to agree with this, and in the fourteenth chapter of the work,³⁴ which we have frequently cited, in which he wrote in defence of the *Timaeus* against Aristotle clearly states that this and no other is Plato's own view and attempts,
 25 unsuccessfully it seems to me, to dispose of Aristotle's objections to this doctrine. Third, Plato denies³⁵ that there is a power of attraction in bodies, even though the doctors³⁶ have all but demonstrated to us through observation that this exists. Fourth, Plato thought of the
 319,1 womb as a living creature,³⁷ a view the falsity of which has been adequately demonstrated by Galen in the *Diagnostic*.³⁸ And, what is more, he states³⁹ that plants share in sensation, which is not Aristotle's view⁴⁰ or something that those who give first place to the
 10 [philosophy] of Plato⁴¹ can demonstrate to us. Were it not that we would be straying from the matter in hand, I would have quoted each of these statements along with what Proclus says in defence of it and have shown, to put it bluntly, that there is no truth in it.

15 3. One could also find many things to criticise in the man's ethical prescriptions; however, since this is not our present concern, I shall mention only one or two just to show that he was often wide of the mark.

20 How could anyone with any sense at all fail to censure his arrangements in the *Republic* for marriages and child-rearing? He instructs
 25 the guardians of the city, male and female, that the good males should mate with the good females and the reverse with the reverse as long as they are still at the best age for having children but decrees
 320,1 that they should rear the offspring of good [parents] and put those of inferior [parents], and any of those of good parents that are defective,

away in a secret place. And once the guardians are past the age for having children he allows the men to have intercourse freely with only a few restrictions with the woman of their choice, and the women likewise, and during⁴² old age, when one should rather be looking to lead a chaster life, he all but exhorts the guardians of this city of his to [a life of] licentiousness. And, what is even harder to stomach, he instructs them that if a conception takes place amongst them, they should take great care not even to allow [that child] to emerge into the light [of day] but to kill it in the womb, that is, before it comes to term, using certain potions or other such coercions;⁴³ for, in our experience, it is not possible to prevent children in the womb (*ta embrua*) from emerging into the light [of day] in any other way. And if one [of them] fights past the sorcery of those who are trying to kill it and is born, he orders them to expose it and not rear it, egging these citizens of his on to what is nothing other than the murder of their nearest and dearest.

So that we shall not seem to be bringing false accusations against the man, hear how he regulates these matters in the fifth book of the *Republic*. Here are his exact words:⁴⁴

It seems, then, that in marriages and in the procreation of children this 'right' crops up not infrequently.

How is that?⁴⁵

It is, I replied, a consequence of what we have agreed to that the best men should mate with the best women as frequently as possible, and the worst, conversely, [with the worst,]⁴⁶ and that the progeny of the former must be reared and those of the latter not, if the flock is to be of the highest possible quality. And all of this must be done without the knowledge of any but the rulers, if,⁴⁷ again, the herd of guardians is to be as free as possible from dissension.⁴⁸

If the progeny of the best are to be reared and those of the opposite not, he clearly wants to expose the latter until they die (*eis apôleian*); for those who are not reared must die. A little further on in this same fifth book of the *Republic* he says:⁴⁹

And they will, I suppose, take the offspring of good [parents] to a crèche run by certain nurses who live apart in some quarter of the city, but the offspring of inferior [parents], and any of those of the others that are born defective, they will conceal in a secret and undisclosed place, as is proper if the race of the guardians is to remain pure.⁵⁰

Again, what can hiding away the progeny of the inferior, and those of the good that are born defective, in a secret and undisclosed place

mean other than burying them somewhere so as to do away with them? They certainly cannot remain all the time in an undisclosed location while they are reared and brought to maturity. And before he has gone much further he has revealed his intention more clearly [and shown] that he wants them to be killed. This is what he says:

But, I imagine, when the women and the men have already passed the age for having children, we shall leave the men pretty much free to have intercourse with any women they please, except for one of their daughters or their mother or their daughters' female offspring or their mother's female forebears, and the women too, except for one of their sons or their father or their male descendants or forebears. But first we shall urge them to take every possible measure not to bring any conception, if one occurs, to the light [of day], and, if one does get past them, to deal with it on the basis that there will be no rearing of such [a child].⁵¹

How, as I have already said,⁵² is it possible to be careful not to bring children that are conceived into the light [of day] other than by killing them in the womb by means of abortifacients and other such magical expedients? Or, when children are born in spite of those who are trying to prevent it, what does saying 'deal with them in such a way as not to rear them' amount to other than urging people to become child-murderers? How much more pious it would have been to exclude such people completely from intercourse with women than to connive at pleasure and destroy the handiwork of God. How many children of the very highest calibre do we see being born of worthless parents, how many inferior ones of good parents, and how many that are courageous and of good character of aged parents?

How greatly has human society profited from this best of all communities by being taught ways more savage than those of any wild animal! What beast is there in the universe so savage or so small and timid as not to learn, untutored and from nature itself, to die in defence of its own offspring? Listen to the verses in which Homer teaches of the loving care that nature has for young creatures:

As when writhing wasps or bees will make their homes beside a rocky path and not abandon their hollow dwelling but stand up to men who [come to] plunder it and protect their children.⁵³

And again:

As a bird will bring a morsel to her unfledged nestlings whenever she finds one even though she is in a bad way herself.⁵⁴

Is it perhaps the case that small creatures like these, obeying the command of nature, or rather that of God, die in defence of their offspring, while others, savage and manifesting a naturally brutal disposition, show disdain for the offspring of their own bodies, however they turn out? [But] does not Homer liken those of his heroes who display protective feelings towards their comrades precisely to these [wild animals]?⁵⁵ He writes:

Ajax stood over Patroclus as a lion stands over its young when hunters confront it in the forest as it leads the cubs along. It exults in its strength and knits its brows, hiding its eyes [from view]. Even so did Ajax bestride the hero Patroclus.⁵⁶

How, then, can a law which attempts to transform the gentleness that is part of our nature and of the nature of a lioness into something more brutal be other than utterly monstrous (*atopos*)? Surely it is the height of impiety to show such extreme savagery towards the unintended offspring (*akousioi sumphorai*) of these parents, and they born of good stock at that!⁵⁷

The monstrous nature of all of this is obvious to anyone. And one can find plenty of evidence that he also wanted women to be shared without going beyond the passages from his writings that we have been looking at. For if during the prime time for producing children he mates the good men with the good women and the opposite kind of men with the opposite kind of women, and if when they have passed the best time for procreation, he then allows them to have intercourse freely and at their own discretion with the woman of their choice other than those he has ruled out, it is clear that those (to take an example) who have previously⁵⁸ (because of what the law prescribes) had intercourse with inferior women, but who subsequently in all probability (once it is allowed by law) have intercourse with the good women from whom they were previously kept away by force of law are not, as Euripides puts it, 'content with a single marriage bed not shared with other women'.⁵⁹ For during the time of their youth it was not permissible for the good men to have intercourse with the inferior women or the inferior men with the good women, but in their old age this is not proscribed. So a woman who has previously, as it seems, had sex with good men and subsequently with bad, or the other way round, has obviously been generally (*koinê*) available for sex to men who want it, though previously just to the good or just to the inferior and subsequently to the good and the inferior equally. Also, the fact that there are no arrangements for widowers and widows in the community is clear evidence that he is aware that, thanks to the promiscuity of intercourse, there is no widowhood⁶⁰ in this community of his.

Moreover, he has already set this law forth in clear language in

5 this same fifth book of the *Republic*. Listen to what he says as a preamble to the law when, after laying down the legislation dealing with the commonality of the civic abilities in men and women (in which he decreed that women, not only while young, but after they have grown old as well, should exercise naked in the gymnasias along with the men; that they should rule more or less equally with the men; and that they should endure equally the hardships of the hunt and of battle), and after having argued (because he was well aware that what he was saying was controversial) that that law was both feasible and beneficial, he was on the point of proposing the law on the community of women and saw that this law was far more controversial and difficult of acceptance than the previous one. This is what he says:

20 We may claim, then, to have survived this metaphorical wave by discussing our legislation relating to women without all being engulfed by it when we decreed that our male and female guardians must participate equally in all their pursuits; in fact, it's almost as though the argument guarantees by its consistency that these measures are both feasible and beneficial.

It's certainly no small wave that you are surviving, he remarked.

You won't say it's a big one when you see the one after it, I said.

Carry on and let me see it then, he said.

326,1 It's a measure that follows, I believe, from this one and the previous ones, I said.

What is it?

It's that these women are to be shared by all these men, with no woman living privately with any man, and that the children too are to be shared and no parent know his child and no child his parent.

5 This *is* much bigger than the other one as far as incredulity about its feasibility and benefits goes.⁶¹

You see how he describes the second law as involving more incredulity as to whether it will be feasible and beneficial than did the first, and that this would not be a matter for controversy and disbelief if he intended one woman to cohabit with each man and was not, contrary to what all people believe to be right, making the women generally available to all the men for intercourse. Observe how explicit the text is. 'These women', he says, 'are to be shared by all these men, with no woman living privately with any man.' And in what follows⁶² he argues at length that this sharing is to be embraced not only in name but in practice as well. 'We stated', he says, 'that the result of this belief and of this way of speaking is shared pleasures and pains.'⁶³

And in this same fifth book of the *Republic*⁶⁴ he also sets out the benefits of the law on how the men should share equally in sexual intercourse with the women. He says that he does not want anyone to have any private property in this city of his; what tears communities apart is labelling everything 'mine' or 'yours' and [each man] carrying off a woman and children to his own separate house and making them his own.⁶⁵ So, he says, they should all have the same way of thinking and have shared pains and pleasures. If this were so, children too would obviously be regarded as shared, not in the same way that property and women are shared, for that would be impossible, but because, since nobody would know which children were his as a result of the unrestricted intercourse of the women, they will regard all of the children as shared and make the pleasures and pains associated with them their own. 25 327,1 5

And he decrees that 'subtle' lotteries should be held, not, as some, ashamed at the wickedness of the law, have pretended, so that one and the same woman can always be allotted to each man, but clearly, as one can see from the passage from Plato which we have already quoted, so that, without knowing what is going on, the good men will each draw a different good woman on each occasion and the inferior men a different inferior woman, with the result that the citizens, believing that this is the outcome of chance and not of the planning of the rulers, will not be at odds with them because the baser men want, as is probable, to have the good women. If he had intended the same woman to cohabit always with the same man, once a man had drawn a woman and once this had become public knowledge, a lottery would obviously have been, as now, superfluous; in fact, he clearly nowhere marries one woman to one man. 10 15 20

And here is a further point. Such 'subtlety' would appear absurd and unworkable and bound to bring about the opposite of the intention of the law, if, as some claim, he intended one and the same woman to cohabit with each man but, being eager that the citizens should be unaware of this and so that they would not appear to own anything privately, contrived by the subtleties of these lotteries that the same woman should always be drawn by the same man. In the first place, it could not escape notice if the same man was always paired with the same woman. After all, he does not order them to make love with their eyes closed. And so in time the fraud practised by the rulers in regard to the lotteries would certainly have become public knowledge and a matter for ridicule and, once this was in the open, the benefit of the law would, one supposes, have completely vanished, or, rather, have been reversed. At present, because each man, like those who work voluntarily and without compulsion, chooses the woman he wants from those that are available and loves her just as she is, our cities are, at least on this account, as free of strife as they possibly could be. But if people thought that intercourse 25 328,1 5 10

15 with women was random but discovered over time that, against the
 clear and obvious intention of the law and as a result of compulsion
 and trickery exercised by the rulers, each man was, contrary in all
 probability to his wishes, having intercourse with the same woman,
 then surely disaffection would break out everywhere.⁶⁶ After all,
 20 Plato does not presuppose that his citizens are completely without
 susceptibility (*apathês*) or above opting for pleasure. If that was how
 he imagined them, he would have had no need of these 'sophisticated'
 lotteries and the deception they give rise to, by means of which he
 intends to prevent them from realising that marriages take place by
 25 a decision of the rulers so that, believing that their having drawn a
 particular woman is a matter of chance, they will not be at odds with
 329,1 the rulers. For what would those who have spurned pleasure once
 and for all for the common good have to be factious over? Therefore,
 if they *are* susceptible (*empathês*) and attached to their pleasures as
 5 well, and if it is impossible to prevent them from realising over time
 that it is not by the luck of the draw but by the vote of the rulers that
 each man, probably against his wishes, has intercourse with the
 same woman, then surely these men, deprived of what they desire
 and of their apparent right under the law, will, with good reason, be
 at odds with the rulers.

10 It has, then, been adequately demonstrated that if he meant that
 the same woman should always be drawn by the same man in the
 lotteries, it would have been impossible to deceive [anyone] and the
 benefit of the law would have been reversed. And even if each man
 did have intercourse with the same women without realising it –
 should one grant that Plato has contrived that too by means of the
 15 lotteries – that would be wrong (*atopos*). He will be holding a view
 that is very bad for the soul: he will believe that adultery and
 unrestricted intercourse with women is no bad (*atopos*) thing. For if
 he believes that he is having intercourse with a different woman on
 20 each occasion, and if he believes that this is a law of the best of
 communities, what else must each of the citizens think? But I think
 that it is clear to everyone that any wrong (*atopos*) action is disap-
 proved of not simply for the act itself but because of the unlawful
 character of the behaviour and because of the assent of the reason to
 25 that. It is not simply having sexual intercourse with a woman that is
 reprehensible but doing so unlawfully. And we distinguish, I take it,
 between lawful and unlawful behaviour by means of reason. So a
 330,1 man whose reason is convinced that he is not always having inter-
 course with the same woman but with a different one on each
 occasion has committed the unlawful act of adultery even if he
 [actually] has intercourse with his own wife [each time]. For just as
 a man (to take the opposite case) who wanted to have sex with
 another man's wife during the night and believed he had done so but
 5 had unwittingly had intercourse with his own wife is with justice

judged to be in truth an adulterer – not in deed, but by virtue of [having given his] rational consent [to such an act], for it is not simply the sexual act but the character [of the act] and the consent of the reason to a sinful (*atopos*) act that constitute adultery (for this reason, irrational animals, being bereft of the reason that can make such distinctions, have also been freed from sin arising from intercourse⁶⁷) – even so, if we are to be consistent, would a man who always has intercourse with the same woman, but does not realise this and believes that he is having intercourse with a different woman on each occasion and has been beguiled by the law into thinking that this is right, have established in his own mind that adultery is a good thing and have committed it on that basis. 10 15

Those, then, who seek to misinterpret Plato by means of such subtleties make it clear, by the very fact that they are ashamed to admit that he arranged things thus, that they believe, along with everyone else, that this is a bad (*atopos*) business, and by being unable to defend him against the charge they themselves are finding him liable for the badness of the law. 20

That is all [I have to say] on these topics. There are countless other subjects on which it could be shown that Plato was wide of the truth; but, so as not to prolong this digression, even what we have said is sufficient to prove that not everything that Plato says hits the mark. 25 331,1

4. So what is there to be surprised at if in the matters currently before us for discussion as well there should be two conflicting positions, one of which hits the mark and the other of which does not? (So that all will agree that they are indeed in conflict, the one asserts that the universe is a god and the other holds that it has come to be and has not existed from everlasting.) But, Proclus, who claims to be a teacher of the truth, accepts that it is true that the cosmos is a god and tries to prove from this that it has not come to be. But even if one could conclude from the fact that the cosmos is said to be a god that it is not generated, he cannot, given that believing in the generation of gods⁶⁸ is a characteristic Hellenic⁶⁹ error, also show that Plato did not hold that it has come to be and has not always existed. And, in fact, while Plato in many places clearly follows correct conceptions of deity and rejects the blasphemous notion of deity of the poets and the populace at large, he sometimes, on the other hand, slips into myths and falls prey to the same impiety as the rest, as though out of respect for popular belief and ancestral tradition, and possibly because he was concerned that the Athenian people might pass the same verdict on him as it did on Socrates. This [last concern on his part] might be inferred from many indications, but Plato himself has made it most clearly evident in his letter to Perdiccas. Here are his exact words: 5 10 15 20 25 332,1

If anyone when he hears this says that Plato professes, it seems, to know what is advantageous for a democracy but although he

5 could address the people and advise them what is best, he is yet
 to stand up and utter a word, you should reply to this that Plato
 was born at a late stage in [the history of] his native land and
 found a people already more or less mature and accustomed by
 his predecessors to doing many things that were quite unlike
 what he would advise; were it not that he believed that he would
 have been putting himself in danger without achieving any-
 10 thing, nothing would have pleased him more than to advise [the
 people] as though it were his father.⁷⁰

Plato has shown very clearly by writing this that he left much that
 needed saying unsaid out of fear. If he was wary of disturbing any of
 the Athenians' inherited (*anôthen*) beliefs in the sphere of practical
 affairs (*epi tôn praktôn*) even though he thought that their prevailing
 15 form of government was a bad one, then surely much more did he
 believe that rejecting [their views] about the established gods would
 place him in the gravest danger. Precisely this was one of the causes
 of Socrates' death.

20 But since these things have already been pointed out by many of
 our people,⁷¹ I shall not dwell on them, having mentioned just enough
 to show that here too, when, borrowing from Orpheus, he declares
 the cosmos to be a god, Plato is falling prey to the deceitful nature of
 25 myths.⁷² But enough of these matters. Let us turn the discussion to
 an examination of the proof under consideration.

5. 'Everything that is destroyed', says [Proclus]:

333,1 is destroyed by its own evil. ... But the entire race of gods, being
 unreceptive of evil, is also unreceptive of change. Therefore, he
 says,⁷³ the universe, for which, since it too is a god, there is no
 evil, will not ever be destroyed.⁷⁴

5 If the entire race of gods, being unreceptive of evil, is also unreceptive
 of change, anything which cannot possibly be unchanging could not
 be a god. So since Plato says⁷⁵ that everything perceptible comes to
 be and perishes and never truly is, and declares for this reason that
 10 the heaven and the cosmos, being perceptible, also [come to be and
 perish]⁷⁶ (for of existing things only the most divine have the property
 of remaining the same and unchanging and the bodily nature is not
 of this order but is always numbered in the ranks of change), and
 since Proclus himself, standing by this tenet of Plato's, states, as we
 15 observed earlier,⁷⁷ that the power of the cosmos is limited because no
 body partakes of infinite power, that limited power is perishable, and
 that this is how the cosmos is by its very nature – granting all of this,
 20 was it more reasonable [on his part] to put himself in conflict with
 himself, with Plato and with the truth⁷⁸ and to argue from the fact
 that the cosmos is being called a god that it is not changeable⁷⁹ and

therefore has not come to be? Or [was it], on the basis that it is changeable and therefore perishable by nature through not partaking of infinite power, [more reasonable] to reject [the claim] that it is a god as false, if the whole race of gods is indeed, as he claims, unreceptive of change? 25

I imagine that everyone would agree that the second [answer], that the cosmos is not a god, is necessary, and the first, namely that it is unreceptive of change, is false. For if the universe is a god, what is there left of the things that exist that is not a god? After all, its parts are embraced within the universe. Indeed, the whole, or universe, is nothing other than the mutual relation of all of its parts and their coming together in one place. At all events, it is as a result of this [kind of thinking] that people have so insulted the glory of God as to drag the divine majesty and name down to the level of the very beasts and inanimate objects and the most shameful of human evils. If, then, the cosmos is observed to be body and to undergo change and alteration and if it is impossible for it to be exempt from change and if the race of gods is unreceptive of change, then it is impossible for the cosmos to be a god. 334,1 5 10 15

But perhaps someone will respond to this that even though the parts of the cosmos change, the whole, *qua* whole, is unchanging; for the whole always remains the same and change and alteration manifest themselves in the parts of the universe.

But on that basis nothing there is, as long as it remains in being, will be changeable and all things will be once and for all unchanging.⁸⁰ After all, no living creature, as long as it remains a living creature, changes in its entirety (*kath' holon auto*),⁸¹ but whether it grows or wastes away, or gets hot, or moves from place to place, does not leave off being a living creature. For were it to change in its entirety, or *qua* living creature, it would also altogether leave off existing; for, among changes, generation and perishing bring about a change to the whole of a thing (for generation is a shift from non-being to being, and perishing from being to not being), while the remaining types of change affect [only] part of a thing. (It is possible for *parts* of the whole to perish and come to be while the thing as a whole is preserved, as for example when an area of the flesh is destroyed and other flesh grows in its place or when a shoot is cut off and others sprout instead.) 20 25 335,1 5

Well, it is certainly the case that the cosmos too, as long as it remains a cosmos, is in the same way unchanging as a whole; for if it changes as a whole, it must also perish. So the fact that the universe as a whole is not presently changing does not show that it is unchanging, but only if none of its parts changed [would this be so]. And this is not the case. On the contrary, there is no part of the cosmos which is altogether unchanging; the heavenly [element] constantly undergoes change of place and there is no part of the heaven 10 15

that is not subject to change of place, and everything else exhibits the full spectrum of changes. And so the universe will not be unchanging. And if, by exhibiting the other kinds of change, everything [in it] is receptive of destruction and generation, then the universe too, being subject to change, will also necessarily be generated and perishable; for if the elements from which it has its being are generated and perishable, it would be contrary to reason for that which is constituted of them not likewise to be generated and perishable, as we have demonstrated in more detail⁸² above.⁸³

But let us look at the present proof from the beginning again.

6. Since Proclus says⁸⁴ that everything that is destroyed is destroyed by its own evil but has not said what the evil of each thing is, it is right to consider just what this [evil] is through (*ex*) which it comes about that each thing that has a share in it is destroyed.

I for my part believe, as we also mentioned in the previous chapter⁸⁵ that each thing's evil is nothing other than its deviation into a [condition that is] contrary to its nature. This clearly does not come about through the agency of any natural power. There is nothing that exists that is self-destructive;⁸⁶ rather, each thing's nature is something that preserves it. Therefore, if powerlessness is opposed to power and non-being to being, and if each thing's natural power is the cause of its being, then powerlessness should be the cause of non-being; for it is with the weakening of [their] natural power and its inability to sustain its substrate for ever that the perishing of things takes place, and it must be not infinite but limited power that grows weak, just as, to take a case, it is the power of the charioteer, whether one prefers to call it physical (*sômatikos*) or technical, that is the reason for the chariot's remaining safe and his weakness that is the reason for the opposite. Therefore, if the cosmos, being body, is of limited power, and if limited power must in time grow weak, and if when it grows weak things slide into the [condition which is] contrary to [their] nature, and if it is what is contrary to [its] nature that is each thing's evil and the cause of its destruction, then the cosmos too will have as [its evil], as far as weakness of power goes, the route towards the [condition] contrary to [its] nature.⁸⁷

So either let them demonstrate that the cosmos is not of limited power or that limited [power] is not perishable, or else, if these things are the case, there is every necessity that the cosmos too, to the extent that its own power is limited, should be receptive of the evil of [falling into a condition] contrary to [its] nature and therefore be subject to destruction and therefore not be ungenerated; for they cannot show by reason that God does not wish to destroy it, since their arguments for this have been refuted in Chapter 6,⁸⁸ and, [even] if that were true, it would not in addition (*para touto*) be implied that it is naturally imperishable; and if it is not something naturally imperishable, but something perishable, it is also of necessity generated.

7. But let us look at the next part of the argument. 'And if the universe', he says: 15

because it has nothing that is able to destroy it, is not perishable, it is not generated either. For it is that from which a thing has its origin that is able to destroy it. When this is controlled, it is a contributory cause in generation, when it has the control, of destruction. And so if there is nothing to destroy it, it has nothing from which it could have come to be either, etc.⁸⁹ 20

Proclus, having, as he believed, demonstrated from the cosmos' being a god that it contains nothing evil and therefore contains nothing able to destroy [it],⁹⁰ next⁹¹ attempts to demonstrate from this that it has not even come to be. For, he says, destruction and generation have the same cause, but when controlled [it is the cause] of generation, and when it has the control, of destruction. Should, then, he says, the ordered and well-arranged universe be destroyed, it could not be destroyed by anything other than disorder and disarray;⁹² for this is the evil of a thing that is ordered and well-arranged. So if, he says, there is no evil for the cosmos, neither would it have disorder and disarray battling [with it], which if in control results in the destruction of the universe, and if controlled in its generation. 5

But since we have adequately shown that the cosmos too is receptive of what is contrary to [its] nature because of the limited nature of its own power,⁹³ and since disorder is contrary to the nature of something which is ordered and disarray to something which is well-arranged, the cosmos too will therefore contain factors which cause its destruction. Yet Proclus states that this cause of destruction is also a cause of generation, [so] the cosmos will therefore also have something from which it could come to be. 10

Now it does not seem true to me that this contributory cause of destruction is definitely (*pantôs*) also a contributory cause of generation,⁹⁴ but, so as not to prolong the argument by digressing, let us leave that aside, for if what he says were indeed universally true, once it is demonstrated that there is something [which is] contrary to [its] nature for the cosmos too, then, on Proclus' assumption, it is clearly both the cause of its destruction and the contributory cause of its generation.⁹⁵ 20

8. Since Proclus next brings up (*kinein*) an argument which is a commonplace among the Hellenes⁹⁶ –

there being nothing, he says,⁹⁷ from which it could come to be, nor would it come to be; for everything that comes to be must come to be from something and it is impossible, he says, for anything to come to be from nothing⁹⁸ 25

339,1 – let us, contending with this argument first so as not to lose to it by default, advocate the cause of the truth to the best of our ability.⁹⁹

One may, by observing everything that comes to be, convince oneself that each and every thing that comes to be comes to be from something [already] in being. A human being comes to be from menses and sperm;¹⁰⁰ the fig tree, for its part, from a planted seed and water which moistens it; out of air, on the other hand, when it is thickened comes water and when it is thinned fire; and the case is the same with everything else, whether natural or man-made (10 *tekhnêtos*). And so, they claim, if there had not been something prior to the generation of the cosmos out of which the cosmos has come to be, it would have been absolutely impossible for it to have come to be. And if there *was* something, it [too] was obviously either ungenerated or generated. If it was ungenerated,¹⁰¹ why, if it is possible for any component at all of the cosmos (*ti tôn tou kosmou*) (I mean that from 15 which it came to be) to be ungenerated, do we not postulate ungenerability immediately of the cosmos? If, on the other hand, it too is generated, it in turn will have come to be out of something else, and so on *ad infinitum*. From this they conclude that if [such a regress] is impossible, it is impossible for the cosmos to be generated; and so it will be ungenerated.

20 These, then, are the arguments by means of which one might support the view that everything that comes to be comes to be from something [already] in being and that nothing comes to be from absolute non-being and that the cosmos is therefore ungenerated; the things that one might say in response to them follow.

25 **9.** First, if nature is the proximate cause of the generation of individuals (of Socrates, I mean, and Plato and this particular horse and this particular water and everything else that has come to be 340,1 here [on earth]), and if, as Plato indeed claims,¹⁰² the whole, or universe, is created by God without any intermediary (*amesôs*), how can it be other than impious (*atheos*) to say that God, if indeed he brings what previously does not exist into being, cannot create unless 5 in the way that nature creates each particular thing? If art creates and nature creates, but the creative work (*dêmiourgia*) of the two is not identical, but the art of, say, carpentry, while itself bringing nothing new¹⁰³ into existence, produces the shape of a sideboard, say, 10 or a door just by fitting pieces of wood together, while nature not only brings about the blending and combining of the elements, but thereby brings into existence actual substances (*ousia*),¹⁰⁴ or the previously non-existent forms of things (I mean the forms of flesh and 15 bone and blood-vessels and sinews and the other parts of an animal and the powers of life, nourishment, growth, sensation and movement within them and all the other powers which exist in this or that combination or blend of the elements and have been shown to be 20 something other than the mixture [itself], and also the countless

varieties of colour and taste in plants and the endless diversity and variation in minerals) – if, then, nature surpasses art by so much, surely the creative work of God must have surpassed that of nature by an incomparably greater¹⁰⁵ margin. Therefore, if nature brings previously non-existent forms into being by taking matter from things [already] in existence and engendering forms in it – because it is impossible for her creative power to display itself unless there is something already in existence¹⁰⁶ and it has need of some substrate upon which to work, since it has its existence in a substrate and cannot exist or act apart from it – there is every necessity that if God too creates and brings things into being, his creative activity should in some way surpass nature. But it would not surpass [it] if he could not bring things into being out of absolute non-being but, like art and nature, had need of a pre-existing substrate in which to display his creative activity and did not surpass nature by as much as nature surpasses art. So if, as I have said,¹⁰⁷ God must surpass nature incomparably [more], and if nature, by taking its substrate, or matter, from what [already] exists, brings into being only the forms when it creates, there is every necessity, if God too brings something into being out of non-being, that he should bring into being not only the forms but the previously non-existent substrate itself of the things he creates, or else he will not be superior to nature. Therefore there is no necessity that the universe, if it comes to be through the agency of God, should come to be out of something previously existing in the way that each particular thing comes to be out of existing things.

10. Second, if, because each of the particular things comes to be out of something [already] in existence, they hold that the universe too, if it comes to be, comes to be out of something [already] in existence, it is clear that they hold that what happens in the case of individual things also happens in the case of the universe; and so by this they are establishing that the whole is affected in the same way as its parts.¹⁰⁸ Therefore, since the parts, or elements, of the cosmos, out of which it has its being, are perishable and there is no part of an element which does not come to be and is not perishable, and since we have earlier shown¹⁰⁹ that not even the totalities of the elements remain numerically the same, and since, as far as this present argument [of theirs] goes, what applies to its parts must apply to the universe, the universe too will be generated and perishable.

[And] again: since each particular thing that comes to be comes to be out of something [already] in existence, they on that account hold that the universe too, if it comes to be, comes to be out of something already in existence (*proiūpokeimenos*). Therefore,¹¹⁰ since nature is the creator of particular things and God of the whole, or universe, and since nature, which creates them, pre-exists each particular thing and the things which are brought [into being] are later (*deuteros*) in time than nature, which brings them [into being], its creator will

therefore also pre-exist the cosmos, even if he has created it out of something that is ungenerated (*ex ontos agênêtou*). And so the cosmos will not coexist with God from everlasting. After all, what reason¹¹¹ is there to compel [us] to liken the generation of the whole to the generation of particulars in some respects but not in others? For it is clear that, even though they claim that the cosmos is everlasting, they nevertheless concede that God is its creator.¹¹² And nature is the creator of particular things. So it is reasonable here too to concede that the same [consequences] follow in the case of the creation of the whole as result in that of particular things.

But if, on the other hand, they do not concede that the whole follows its parts and that what results in the case of the parts also results in the case of the whole, then, even if all particulars when they come to be come to be from things [already] in existence, it is not on that account automatically (*êdê*)¹¹³ necessary that the whole too should, if it has come to be, have come to be out of something [already] in existence. After all, if nature and God do not create in the same way, and if nature creates out of existing things, then God will create not out of existing things but out of non-existent. For, just as each of [its] parts moves and the universe [as a whole] also moves, but the universe does not move in the same way as particular things move – [each part] changes position entirely but the universe rotates about its own centre without changing position entirely, so that it both moves (since it is a natural body and nature is the origin of movement and rest) and yet (since there is no other place to which it could move by changing position in its entirety (*holon kath' holon auto*)¹¹⁴) remains [in] the same [place] (*hôsautôs ekhon*), and there is no necessity either for individual things to move with the movement of the universe or, conversely, for the universe to move with that of individual things – even so,¹¹⁵ analogously (*kata to akolouthon*),¹¹⁶ it is not, one supposes, necessary that, if the universe has come to be and each of the particular things [within it] has come to be, the generation of both should be the same; rather (contrary¹¹⁷ to the situation with regard to movement) the universe must if it has come to be have come to be in its entirety, if there is really to be generation of a universe, and individual things must come to be not in the same way but out of existing things and be resolved once more into something with existence (*eis on*) when they perish.

And this is as one would expect (*kai touto eikotôs*); for, with the cosmos already formed and with the parts of the universe coming to be and perishing because of generation and perishing being useful to the universe, it was impossible for things to be resolved¹¹⁸ in their entirety into complete non-existence¹¹⁹ when they perished and for nothing to remain in place (*en tautôi*). For otherwise in the long run (*tôi makrôi khronôi*) successive cosmoses would have to replace one another. The same thing would happen to [the cosmos] as happens to

a ship which is replaced (*ameibesthai*) plank by plank so that it is eventually completely replaced and, although the same form is preserved, become another [ship].¹²⁰ So if it had to remain one and the same cosmos, and if there had to be generation and perishing, it was impossible for both of these [conditions] to be met at once unless its parts changed into one another and thus brought about generation and perishing and maintained as far as possible the identity of the cosmos. But, if the universe comes to be, there is no necessity that it should come to be from something [already] in existence. If that were the case the creative work of God would be half-finished and bring only form without a substrate into existence.¹²¹ It is in its entirety that the universe, if it is indeed to come to be, must come to exist¹²² out of non-existence.

So, either let them show by means of further, necessary and irrefutable, arguments that the cosmos has not come to be but has everlasting existence, or, if it *does* come to be, there is no necessity that it should come to be from something [already] in existence just because each particular thing comes to be from something [already] in existence; on the contrary, for the universe to really come to be as a universe [it must] come to exist in its entirety out of non-existence.

11. So even when conceding that everything which comes to be comes to be out of something [already] in being, we have discovered no necessity that the universe too should, if it comes to be, come to be out of something [already] in being. And perhaps it is not even true that things which come to be always come to be out of something [already] in being, for [one could argue as follows]:

Given that all things that are generated and not everlasting are composed of matter and form, and given, moreover, that generation is a change from non-being to being, just as perishing [is a change] from being to non-being, does the compound [of matter and form] come to be (i.e. change from non-being to being – for that is what generation is) as a whole (I mean both in respect of its matter and in respect of its form), or not as a whole?

Well, if that which comes to be comes to be as a whole (i.e. both in respect of its matter and in respect of its form), then clearly that which perishes also perishes as a whole. And so not only the form but the matter too must come to be and perish. But they believe that matter neither comes to be nor perishes and we shall hear Proclus say as much in what follows.¹²³ And Aristotle too says the same thing towards the end of the first book of the *Physics*.¹²⁴ Therefore the compound [of matter and form] does not come to be and perish as a whole.

Let us consider the situation in regard to matter – whether, [that is to say,] so-called prime matter is in reality incorporeal or not, and whether it is entirely ungenerated and everlasting or not – in another context¹²⁵ in which the philosopher [sc. Proclus] will make mention of

it, and if it [earlier] seemed¹²⁶ true [to us] that among things currently coming to be and perishing through the agency of nature the common substrate of things neither comes to be nor perishes¹²⁷ (after all, the destruction of, say, flesh has destroyed the particular form of the flesh, but not the body which underlies it as well; for the three-dimensional [substrate] remains without having suffered any damage as far as the account (*logos*)¹²⁸ of its own nature is concerned; for three-dimensional substance is precisely what the nature of body is; [and] in the same way, should water perish and air come to be out of it, there has been perishing of water and generation of air, but the substrate of both, that is to say, body devoid of qualities, has, *qua* body, undergone no change; and the same argument applies in every case) – if, then, [as I was saying,] the first substrate, or matter, neither comes to be in things that come to be nor perishes in things that perish, then it is neither the case that compound [things] perish as wholes (for matter remains unchanged (*ametablêtos*) in things that perish) nor that perishing occurs as far as matter is concerned.

It remains, then, that the form is what perishes, i.e. is what changes from being to non-being. Therefore it is to this too that generation, that is, the change from non-being to being, belongs; the body which is the substrate for bread, to take an example, has, although it had not been flesh, become flesh, and when the flesh has once more perished, the form of the flesh disappears into non-being, but the body is still every bit as much body; for neither is the perishing of things into [something] incorporeal nor their generation out of incorporeal things; and so body remains absolutely unchanged (*ametablêtos*). Therefore perishing and generation in compound [entities] is not of the whole but only of the form; for, even though a compound [entity] is said to come to be, generation is [only] predicated of the whole because of a part; for, properly speaking, it is the form which comes to be. (In the same way, even though Socrates may be said to be beaten, or to be walking, or to be wearing clothes, he is not involved in each of the said activities with his whole being – I mean with both soul and body – but only with his body, and conversely, if he may be described as wise or just, the predication again carries over to the whole from a part, [in this case] the soul; for it is because of composition that we habitually predicate of the whole what applies to a part.)

Now, if this is so, and if generation and perishing apply, properly speaking, to forms, if it is the case that all enmattered forms (I mean the individual [forms] among which perishing and generation occur) are everlasting, then let it be agreed (*estô*) that nothing comes to be from absolute non-being or perishes into absolute non-being. But if neither the forms of flesh and blood and bone, nor colours and shapes, nor any of the other enmattered forms is everlasting, it is clear that none of them existed in accordance with the account appropriate to

a thing of its kind¹²⁹ before it came to be, but was subsequently brought into being out of absolute non-being and changed into being, and when it perished changed back into absolute non-being;¹³⁰ for the whiteness in a particular swan had certainly not, one supposes, subsisted or been included among things that exist before the swan was born, but first gained existence in the swan at the time of its birth; and neither therefore, one assumes, does the whiteness remain after the swan has ceased to exist (*phtheiresthai*), but passes over in its entirety into non-being.

And, speaking [more] generally, each of the enmattered forms or shapes (the form of flesh, for instance, or that of bone; or a particular triangle or a particular circle), and each of the qualities (I mean heat, coldness, whiteness, blackness, and the like), and, moreover, the irrational powers of the soul (I mean those of nourishment, growth, reproduction, sensation, appetition, and the rest) – there is every necessity that these and their like, since they have their existence in underlying bodies, will, when the particular bodies in which they exist cease to exist (*phtheiresthai*), either revert to matter and become, as it were, matter, or migrate into another substrate and [another] body and animate it and inform it in every way (as the Hellenes¹³¹ hold in the case of the rational soul), or be resolved into simpler elements (as syllables are into letters and a house into stones and pieces of timber), or return to some totality of their own (as though the fiery [element] dispersed in us¹³² were to return to the totality of fire), or turn into another form (as if blackness, for instance, were to become whiteness when it perished, or sweetness, or something else), or exist on their own in separation from matter, like the intelligible forms; or, if it is shown that none of these [alternatives] is possible – and, as far as I know, it is not possible to even imagine any further mode of dissolution for them – it remains that they are dissolved into complete non-being when the underlying body ceases to exist (*phtheiresthai*).

Well, that¹³³ none of the enmattered forms or any of the irrational powers of the soul becomes matter when it perishes is something that is agreed among the Hellenic philosophers themselves. For no form and no power of the soul receives its being and substance from matter, whether by its giving birth to forms or by its changing into form¹³⁴ and becoming the forms themselves; for it is not productive of forms, since superior things cannot come to be out of inferior. After all, how can matter, which is insensate, lifeless and, in a word, formless, be the cause of sensation, of life (*psukhê*) and, in a word, of form? Superior things are productive of and the causes of inferior things, not, contrariwise, inferior of superior. For matter [exists] for the sake of something [else], [while] form [is that] for the sake of which [something else exists]¹³⁵ and it is always the case that that for the sake of which something else exists is superior to that which

exists for the sake of something else. Also, that for the sake of which something else exists is prior (*prôtos*) by nature to that which exists for the sake of something else. Even though they are,¹³⁶ since they are
 15 relatives, simultaneous in their existence, it is nevertheless necessary that that for the sake of which something else exists be thought of first and that that which exists for the sake of something else be provided for its sake; for it is for the sake of the already envisioned form of the house that we provide matter¹³⁷ of a particular kind and
 20 not on account of the matter [that we provide] the form. Father and son, for instance, are relatives but the father is prior by nature, and genus and species are relatives but the genus is prior by nature. So that for the sake of which something else exists is prior by nature to that which exists for the sake of something else even though they are relatives. And if that for the sake of which something else exists is
 25 prior by nature, that which exists for the sake of something else will not be its cause; for causes are prior by nature to the things that are caused. And so, if matter is something which exists for the sake of something else and form something for the sake of which something else exists, then matter is not productive of forms; for that which produces is the efficient cause of that which it produces and it is not possible for that which exists for the sake of something else to be the
 350,1 cause of that for the sake of which [it exists].

But nor is it possible for matter to change into forms and, as though transforming itself, become [forms], or, conversely, for forms when they perish to become matter. For if composite [entities] have
 5 matter and form as their most basic components, how will form be further resolved into matter? For matter and form will no longer be the two elements of bodies, but only one [of them], matter will be [an element], and there will be no composition in things. And how,
 10 anyway, would matter, which is unchanging, change into form? It would not be preserving its unchangingness. For if matter and form are not the same thing, and if matter changes and becomes form, it has not, one assumes, remained matter. A thing which changes into something else does not itself remain what it was. Air changes into
 15 water, for instance, or into fire, but the air loses its existence (*to einai*) at the precise moment of the change, and whiteness, *qua* whiteness, loses its existence as whiteness as it changes, and the same goes for everything else. So if matter turns into form it no longer remains matter. And so it will not be unchanging. And thus
 20 there will be nothing which is composed of matter and form, but everything will be simply forms without [any] matter – in fact, matter will not exist at all. For manifestly nothing undergoes a change from formless matter into something else; heat, for instance,
 25 changes into cold, and black, for its part, into white, and the same goes for everything else. So if someone says that matter changes and becomes forms, he will at the same time be doing away with the

existence of matter altogether. Therefore matter is not productive of forms and nor does it change and all at once turn into forms. And therefore nothing that comes to be comes to be out of matter and nothing that perishes is resolved into matter. For that into which a thing is resolved when it perishes is that from which it had its generation. So if no form becomes matter during the perishing of things, neither would any have¹³⁸ its generation out of matter. For even though matter is said to be potentially forms, this is not because [matter] itself gives birth to them or changes itself into form¹³⁹ (for it is unchanging in things that come to be), but because it is suited to accepting their existence within itself. For just as a blank (*agraphos*) writing surface is, as Aristotle says,¹⁴⁰ potentially the letters that will be written on it not because the substance (*phusis*) of the letters grows out of it, or indeed because the papyrus or wax changes into the substance (*ousia*) of the letters (for the papyrus or wax remains unchanged (*amētablētōs*) when letters appear on it), but because it can accept the existence of letters on itself, and one would not say that the letters draw their existence from the existence of the papyrus or wax, in the same way, one assumes, even though the matter may be said to be the forms potentially, it is not on that account reasonable to say that the forms exist as a result of the matter existing, but that it is really, if anything, because they are not of a nature to exist by themselves apart from a substrate. [The manner of their] destruction makes the demonstration of this point clearer to us; for if, when letters are destroyed, their forms do not become matter, then clearly neither have they received their existence out of matter; for it is necessary for generation to take place out of that into which destruction takes place.

But nor is it possible for any enmattered form or the powers of the soul (I mean the irrational ones) to migrate into another substrate. If the powers of the soul were, while remaining numerically the same, always migrating from substrate to substrate, they would be immortal and self-subsistent and without need of a substrate for their existence. It would be impossible for the soul of a horse, for example, to migrate from substrate to substrate while remaining numerically the same unless it were self-subsistent and immortal – in the way, if you like, that [the pagans] hold that our soul has existence independent of body and migrates between different bodies. For nothing else that has its existence in a substrate would be able to migrate from one substrate to another. The form of flesh in Socrates would never leave Socrates and appear, numerically the same, in someone else, and nor will the whiteness in a swan or the spherical shape (*sôma*) in an apple ever leave their own substrate and, while remaining numerically the same, take up residence in another. This [behaviour] is peculiar to things which are self-subsistent and have their existence apart from substrates, because [a thing] must first be

separated from its own substrate and [only] then appear in another. For how could something not naturally equipped to be separated from its substrate without being destroyed be separated [from it] and survive and remain the same [thing]? And a thing which cannot survive¹⁴¹ when separated from its own substrate could not ever appear in another substrate. It would first have to be separated from the substrate in which it is, and [only] then appear in another, and it is impossible for enmattered forms to be separated from their own substrates and survive. And so their moving from one substrate to another is not even a possibility. For even though fire may heat the surrounding air, it is not the case that numerically the same heat [has] the fire as its substrate and also comes to be present in the air.¹⁴² It would have to leave its own substrate, I mean the fire, and then the fire would no longer be hot, or not *as* hot, since its heat, or part of it, would be leaving it and entering the air as its substrate. So what should we conclude? [That] the heat in the fire, being active and naturally equipped to heat its surroundings, generates other heat in the surrounding air; and, just as a theorem is formally the same (*to auto kat' eidos*) in the teacher and the pupil, but not, for all that, numerically the same, and the one in the teacher is the efficient cause of the one in the pupil, and [the one in the pupil] is caused [by it], so too is the heat in the fire, which is numerically different from the heat in the air, its efficient cause. Therefore it is not possible for enmattered forms, given that they are neither self-subsistent by nature nor everlasting but generated and perishable, to migrate from one substrate to another.

But nor can they break up¹⁴³ into anything simpler. Things which break up into simpler [elements] must be composite. So of what simpler [elements] does the sensory power consist? Or the nutritive [power], or whiteness, or sweetness, or other such things? And besides, the same difficulty remains again in regard to them; either they too will in their turn be resolved into simpler [elements], and the process (*proodos*) of resolution will have no end, or, if, being elements of enmattered forms, they are necessarily inferior to them and on that account also perishable themselves but are not resolved into simpler [elements] when they perish, why do we not admit to simplicity in the forms themselves? And what elements could one even imagine whiteness, or sweetness, or softness, or any of the other qualities, consisting of? And we see that all things which do break up into simpler [elements] are partible¹⁴⁴ and are magnitudes. But, as Aristotle shows in *de Anima*,¹⁴⁵ the powers of the soul are without parts. So nor is the resolution of forms into simpler [elements].

Can it then be the case that enmattered forms return to some totality of their own when their substrates perish? This too is manifestly impossible. In the first place, it was shown even by earlier thinkers (*hoi arkhaioteroi*) that there is not some totality of souls out

of which our souls emerge by being separated off. The result of that 20
 would be that, through being cut off from their totality, they would
 be partible rather than without parts themselves. And what totality
 of the spirited part (*thumos*), to which the spirited element in the soul
 returns [as] to its own totality, could one even imagine? What [total-
 ity] of the [power] of nourishment, or of growth, or of any of the other 25
 powers of the soul? Even a nutritive totality [associated with] the
 [nutritive] power of the soul must nourish some body or other or a
 growth-promoting one make [some body or other] grow; for nutritive
 power is nutritive of something which is being nourished and growth-
 promoting [power] promotive of the growth of something which is
 growing. So if there is some totality of nutritive power or of growth-
 promoting power¹⁴⁶ there will also be something which is nourished
 or whose growth is promoted by [this] totality of nutritive power or 355,1
 of growth-promoting [power]. So if, on the one hand, no substrate is
 being nourished or made to grow [by these totalities], they cannot
 even exist. For they are, as was stated earlier,¹⁴⁷ relatives; for that
 which nourishes and that which is nourished and that which pro-
 motes growth and that which is made to grow are relative to one 5
 another both in fact and in language (*pros allêla gar kai estin kai
 legetai*). And if, on the other hand, there is [such a substrate], since
 everything which is nourished and grows is perishable, this body will
 be perishable too. So, [we ask] once more, into what will the totality
 of the nutritive power be resolved when its substrate perishes? And 10
 if the totality is something that is perishable, a part of it will also of
 necessity be perishable. And how would one envisage a totality of the
 form of flesh, or of bone, or of vein-tissue (*phleps*)?¹⁴⁸ Or one of
 whiteness, or blackness, or sweetness? What would a totality of
 triangle or cube or of shape in general be? For if there is a totality of 15
 whiteness, there will also be a totality of white body, and the same
 will go for each form. So let them explain to us what a totality of white
 body, or, black, or sweet, or of triangle, or of anything else [of that
 kind] is; for if such totalities are endowed with qualities (since 20
 whiteness and blackness and the rest are qualities), they are cer-
 tainly also perceptible. So how is it that none of our senses
 apprehends any such body – I mean a totality of white body, or of
 sweet, or of flesh, or of anything else [of that kind]?¹⁴⁹ And yet by 25
 sense we apprehend bodies¹⁵⁰ without a break all the way from the
 earth to [the sphere of the] fixed [stars], [and] there are of necessity 356,1
 [bodies of] the same [kind] in the other hemisphere as well. Therefore
 it is also fiction to hold that enmattered forms return to a totality of
 their own when their substrates perish.

It remains to inquire whether the physical forms change into one
 another – triangle into circle, for instance; or sweetness into its 5
 opposite, bitterness, or into just any other form, such as, say, heav-
 iness. This too is agreed to be impossible. The nutritive capacity could

not, upon perishing, become, say, high-spirited, nor by any manner of means could the soul of a dog which has died (*phtheiresthai*) ever become the soul of a horse. This would again involve enmattered forms migrating from one substrate to another, which has been shown¹⁵¹ to be impossible; for even if things are said to come to be out of one another (I mean water out of air, and air again out of water, and all things out of all things), it is not through the forms themselves changing into one another (that of water into that of air, or that of bread into that of flesh) that the changing of one thing into another is said to take place, but because the substrate, while remaining the same and unchanging as far as the account of [its] being¹⁵² is concerned, is receptive of each of the forms by turns. For just as a bronze horse would become a bronze dog not because the latter came into existence as the shape of horse changed (for as soon as the one arrives (*hama tōi pareinai*) the other completely vanishes), but because the bronze, while remaining numerically the same, receives each of the forms in turn, even so in the case of physical things does generation of one from another take place when the common substrate of all of them, which has also been shown¹⁵³ to remain unchanged (*ametablêtos*), receives different forms by turns at different times while the forms themselves clearly give way to one another and with the arrival of the newcomer the former [occupant] passes into non-being.

Plato clearly teaches us this very thing in the *Phaedo*.¹⁵⁴ He portrays Socrates saying that from one point of view the opposites come into being out of one another, but that from another, one opposite cannot ever change into the other (*genesthai, hoper to enantion*), but as soon as one opposite comes on the scene the other one immediately perishes; for as soon as coldness enters a hot body the heat [in it] at once perishes. After Socrates has made these statements in the *Phaedo* and one of those who are listening thinks that he has fallen into a contradiction if he, one and the same person, says both that the opposites come into being out of one another and, contrariwise, that one opposite cannot ever change into the other, Socrates replies to the man who has raised this difficulty that he has remembered what was said correctly but has not understood the difference between the [two] statements. When, he says, we stated that opposites come into being out of one another, we were talking of the things which have the opposites, that is, the common substrate of the opposites. [For example], a body which is, say, white subsequently becomes black [and] so the white body is said to change into a black body; that is to say, that which partakes of both [of these colours] is said to switch from one of them to the other. But these opposed forms (I mean whiteness and blackness) never, he says, admit of generation or change into one another (for whiteness never becomes blackness), but whenever one of these opposites enters a

substrate, the other, which is already present in it, at once perishes. And so, he says, we say that things which partake of opposites and are themselves homonymously¹⁵⁵ called opposites (because both the whiteness and the body itself which has been whitened are called white) come into being out of one another, but do not also say that the things of which they partake (I mean the forms themselves of the opposites, such as blackness itself and whiteness itself) come into being out of one another (for this has been shown to be impossible), but, if anything, [that they come into being] one after the other; for blackness comes to be present in a substrate *after* whiteness (or *vice versa*), and the same goes for everything else.

So much for what Plato has to say. And it is clear that there is every necessity that what he establishes in the case of opposites also applies to all material forms. When the wine is changed into blood, the form of the wine immediately perishes; and equally, if bread is changed into bone or flesh, the form itself of the bread has not become flesh, but it has departed into non-being, and the form of flesh or of bone has come to be in its [former] substrate; and the same argument applies in all [such] cases. So even though things are said to come to be from one another, it is not the forms which undergo change and generation into one another, but the forms themselves give way to one another and withdraw into non-being, while the common substrate becomes receptive of each of the forms in turn. In this way it is impossible for generation to take place without perishing because (i) it is not possible for a substrate to become naked of forms, (ii) two forms certainly cannot be in the same place at the same time, and (iii) one form, moreover, is unable to turn into another¹⁵⁶ without itself perishing and passing out of existence.

If, then, when bodies perish, enmattered forms are neither resolved into matter, nor migrate into another substrate, nor break up into simpler elements, nor return to their own totality, nor change into another form, nor yet, as is the case with intelligibles, remain apart by themselves with a substantial existence (*ousia*) apart from bodies (for they are inseparable¹⁵⁷ from bodies and have their existence in them as [their] substrates), and if it is not possible to even imagine any mode of change over and above these,¹⁵⁸ then it remains that all enmattered forms pass over into absolute non-being when bodies perish. [And] therefore they also take their generation from absolute non-being.

Under pressure from these and similar arguments from us,¹⁵⁹ and attempting, certainly not without ingenuity, to defend his own position, he would concoct something along these lines.¹⁶⁰

'Enmattered forms', he says,¹⁶¹ '[are things] such as the form of flesh, or whiteness, or shape, and just as each such thing comes to be from something potentially of that kind and becomes something actually so, so also do they revert from actually [existing] back to

their own potentiality when they perish; for just as potential whiteness, for instance, changes and becomes actual whiteness, so too does actual whiteness when it perishes become potential whiteness once more, so that when whiteness has perished, it has not reverted to absolute non-being but to potential whiteness; and just as a potential statue changes into an actual statue, so does the actual statue revert once more to being a potential statue when it is melted down. And, if the destruction of each thing is indeed into that out of which its generation [took place], the same argument applies in every case. So if generation is change from potentiality to actuality, and perishing is, conversely, change from actuality to potentiality, then generation is not out of non-being nor perishing into non-being'.¹⁶²

That is the sort of thing he would say. We, for our part, in setting out to refute what is plausible in this argument, have made the initial assumption that it is an axiom of general application (*koinos*) and accepted by all that to be something potentially is one thing and the potential itself for that thing another, and, similarly, to actually be something is one thing, the actuality of that thing something else. What is potentially white, to take an instance, is the underlying body, which is suitably equipped for receiving the quality of whiteness into itself, whereas the pure (*psilos*) potential for whiteness itself is the suitability by possession of which a particular body is naturally disposed to be whitened while others do not even have the potential to be whitened. Similarly, what is actually white¹⁶³ is the whitened body itself, as for instance [a piece of] whitened linen, whereas the actuality of whiteness, or, as Aristotle puts it, the entelechy, is the form of whiteness itself, which has supervened in the body; for that which has shared in such an actuality is said to be 'actually' white, the word ['actually'] being employed in the dative case. And this is so in all other cases. So, whenever an actually white body throws off [its] white colour and becomes potentially white, it is true to say that the formerly actually white body itself has become potentially white, but not true to say of the actuality and form of whiteness itself, by sharing in which the body was said to be actually white, that it has by perishing either become something potentially white or the potentiality for white colour itself.¹⁶⁴ For when the white body perished, the actuality or form of whiteness itself either remained or did not remain in the substrate. So if, on the one hand, the actuality or form of whiteness has remained in the potentially white [body], it must be that the same thing is both actually and potentially white at the same time, in other words both white and not white; for the potentially white [body] is not only not yet white, but the same thing will also be opposite things at the same time; for something which is potentially and not actually white, but is nevertheless coloured, must be black or one of the intermediate [colours]. So, if it is impossible either for opposites to coexist or for the pair of contradictory state-

ments that the same thing is both white and not white at the same time – or white and black at the same time – both to be true at once, then it is impossible for the form and actuality of white to be in what is potentially white. But if, on the other hand, it is impossible for the actuality¹⁶⁵ of whiteness to be in what is potentially white, then when a white body perishes, the form or actuality of whiteness in it of necessity passes, unless it is everlasting, into absolute non-being. And so, even though the underlying [body] changes from the potentiality to the actuality, and back from the actuality to the potentiality, the enmattered forms themselves pass over for their part into absolute non-being when they perish – and are also on that account brought into being out of absolute non-being by the one who makes them.

One should also look at [the matter] this way. If there were a white body, and if it were later, when the whiteness in it perished, to become potentially white, and then the same [body] were to become actually white again, it would, one supposes, be necessary that the whiteness which came to be in it later should not be numerically¹⁶⁶ the same as the whiteness which had previously come to be in the same [body], even though it is specifically¹⁶⁷ the same – in the way that Socrates is specifically the same as Plato though not numerically the same, and the movement of a sphere, which starts and ends at the same point, is specifically the same today, say, and yesterday, but not numerically the same. After all, that which is numerically one and the same must be preserved (*soîzesthai*) and not perish as long as it remains (*menein*) the same thing, just as Socrates, for instance, is numerically the same just as long as he survives (*menein*) and remains alive (*soîzesthai*). If, then, an earlier whiteness has perished and another whiteness has subsequently appeared in the same [body], the later one is clearly numerically different from the earlier.

Since, then, this is agreed and it is impossible for whiteness previously in a particular body to be numerically the same as whiteness which has subsequently appeared in the same [body], it is impossible for the whiteness which has previously perished to have come back into being still numerically the same, even though it is specifically the same. And if it is impossible for the whiteness which has perished to have come [back] into being still numerically the same, then the individual whiteness which perished is not still present numerically the same in the underlying body even potentially – not at any rate if that which is potentially something can also come to be in actuality. So if it is impossible for the whiteness which has perished to come [back] into being still numerically the same, then it will not be in the underlying body even potentially. And if that whiteness is not even potentially in the underlying body, then when it perished, it did not perish into its own potentiality; for if it reverted to its own potentiality when it perished, it would also be able to come back into existence.

So if it is not even possible for that same whiteness to come [back]
 10 into being still numerically the same, then it did not revert to its own
 potentiality when it perished, but departed into absolute non-being.
 (We have already shown¹⁶⁸ that it is not possible for it¹⁶⁹ to revert to
 anything else after it perishes.) If, then, a [particular instance of]
 15 whiteness passes into absolute non-being when it perishes, and if a
 thing must have come to be out of that into which it perishes, and,
 conversely, a thing perishes into that out of which it came to be, then
 it also came to be out of absolute non-being.

The same account will also apply to all enmattered forms that
 20 come to be and perish. And so by this [argument] it is shown that all
 things¹⁷⁰ which come to be, to the extent that they come to be, come
 to be out of absolute non-being, and that [all] things which perish are,
 to the extent that they perish, resolved into absolute non-being.

And besides, to say that enmattered forms are resolved into poten-
 tiality when they perish is, if potentiality is in fact matter, nothing
 25 other than to say that they are resolved into matter when they perish
 and enter into it (*kakei*); and if they will enter into it when they
 perish and have received their existence from it when they came to
 364,1 be, then superior [things] will stem from an inferior, which is impos-
 sible; for, as was stated previously,¹⁷¹ [matter] is incapable of
 producing what it does not itself possess.

But what need do I have of lengthy arguments when we [can] show
 that something similar is subscribed to by the Hellenes themselves?
 5 At any rate, Proclus, when explaining Plato's teaching on enmattered
 forms in the fifth book of his comments on the *Timaeus*, states that
 Plato says that qualities and all enmattered forms come into exist-
 10 ence¹⁷² out of non-being and perish once more into non-being when
 the composite is dissolved. The text is as follows:

Perhaps it is better to say that not only the qualities but the
 enmattered forms as well are being described as 'things that
 pass in and out'; for these, and not the qualities, are the like-
 15 nesses of the intelligibles. We should look at where this form
 goes [when it passes out of the receptacle]. It would be extraor-
 dinary if it were to pass into nature; for [then] nature will be
 taking in one of the things [which come] after it and [emerge]
 from it; it would be as though one were to claim that there is
 something or other that passes from [the world of] generation
 to the intelligible [sphere]. And if, on the other hand, [we say
 20 that it passes] into other matter, we shall be speaking contrary
 to clear [fact]; for when fire is quenched and the matter turns
 into air, we do not see other [matter] being kindled. And if
 they¹⁷³ become self-contained (*en heautois*),¹⁷⁴ they will be intel-
 ligible and self-subsistent¹⁷⁵ and without parts. So whence
 bulk? Whence extension? Whence the strife over the common

receptacle? For things that are self-contained do not fight over an underlying support;¹⁷⁶ they do not even need anything underlying [them]. And if such forms cannot be either in nature or within themselves or in matter after [their] perishing, they must pass into non-being; for it is not the case that this whole [universe] continues in existence; only matter lasts for ever, while form comes into existence without [any process of] generation and passes away without [any process of] perishing.¹⁷⁷

It has, then, been shown both by means of dialectical demonstration and through the words of Proclus, which are themselves guaranteed by the teaching¹⁷⁸ of Plato and by the evidence (*enargeia*)¹⁷⁹ [of the facts themselves], that both the qualities and the enmattered forms have come into existence out of not being and pass once more into non-being when they perish. Therefore it is false that nothing comes to be out of absolute non-being or perishes into absolute non-being.

12. But, he¹⁸⁰ says, forms neither come to be nor perish but come into existence¹⁸¹ without [any process of] generation and pass out of existence without [any process of] perishing, as indeed we have heard Proclus say in the words we have just quoted.¹⁸²

One might argue for this position along the following lines. All generation is certainly observed [to be located] in time and movement, [as is], for instance, the generation of human beings. There is, for example, need of a [determined] amount of time for the creation of a living creature. But forms supervene instantaneously in substrates and instantaneously withdraw once more from their substrates. The form of a house, to give an illustration, does not exist before the last tile, say, has been placed on the roof. If this is missing, the structure cannot qualify for (*epidekhesthai*) the definition of a house; for if a house is a shelter [constructed] of stones and pieces of timber for keeping out (*kôlutikos*) rain and heat, and if it is not able to keep out (*kôlutikos*) rain with a single tile missing, then while a single tile is missing the form of house has not yet supervened in the substrate, but once the last tile is placed in position the said form supervenes instantaneously in the substrate. And the same applies in the case of natural forms. If a foetus is removed from the womb before the time ordained by nature, just one day or even an hour before the full (*teleios*) formation of the animal, [then], inasmuch as it has not been perfected by nature, [its] creator, it of necessity perishes because the final form of the animal has not been produced in the substrate. And so forms arrive in substrates instantaneously. And if this is so, [they do so] without generation; for all generation is over time. And in the same way their dissolution into non-being also takes place instantaneously. For whenever a compound body falls into complete disarray, [its] form instantaneously withdraws and is extinguished from its substrate, just as, in the case of the flame of a

lamp which is gradually going out, the flame lingers on and [then] is instantaneously extinguished. And if it ceases to exist instantaneously, it is of necessity also without [any process of] perishing; for all perishing takes place over time, since all change does. Therefore forms come into existence without generation and cease to exist without perishing.

Therefore, they say,¹⁸³ that which comes to be is the substrate, or matter, and [what] it comes to be [is] serviceable and suited to the reception of form. So when, with time (*tôi kronôi*), it becomes suited [to such reception], form instantaneously (*akhrônôs*) supervenes in it. So, if the substrate becomes serviceable, and if the substrate does not come to be out of non-being but out of being, then nothing comes to be out of non-being.

13. This then is the case one could make with a view to showing that enmattered forms either exist or do not exist without [any process of] generation or perishing if one took the premises of one's arguments from [our opponents].

But, in the first place,¹⁸⁴ even if we accept the truth of this argument, it is still not possible for anyone to show on the basis of these [premises] either that the cosmos has not come to be, or, if it has come to be, that it has come to be out of [something already in] being. [That] false inference has its origin in the ambiguity of 'come to be'. In the case of the cosmos we refer only to its being brought into being out of non-being and to nothing else as 'generation' – just as Plato does when he asks 'whether it has always been, without any initial generation, or whether it has come into being, starting from some beginning'¹⁸⁵ – and not to its formation, as it were, and substantification with the lapse of time. We declare that the cosmos has not come to be in this last sense of generation; for the creative activity of God is instantaneous and [his] wishing [it] alone is enough for the substantification of each thing.

So they should stop bothering us [with arguments] that are based on an ambiguity. If they too accept that there are things which are not everlasting [and] which are brought into being instantaneously (such as all forms), and that the existence of these things does not arise out of existing things, what is there to prevent the cosmos too from having been brought into being in that way without having existed before it came to be and without having been brought into being out of anything already in existence? So, should the universe be described as having come to be in this sense, there would be no necessity for it to have come to be out of [something already in] being, but rather, on the contrary, [for it to have come to be] out of non-being, if it is indeed the case that all things which are brought into being instantaneously are brought into being out of non-being. And God, since he is the creator of time, must create timelessly.¹⁸⁶

So, along with dialectical demonstration, [our opponents] them-

selves are in accord with us in agreeing that all enmattered forms are brought into being from things without being (*ek mê ontôn*).¹⁸⁷ And, if the cosmos is indeed body, it is [also] agreed that the form of the heaven and of the whole cosmos is enmattered form. Therefore, if it comes to be – i.e. if after previously not existing it is thereafter brought into being – it is necessary that it too should have been generated from non-being and not from being.

And that matter too comes to be, if it does indeed come to be, out of absolute non-being, and is, if it perishes, resolved once more into absolute non-being, will be shown in Chapter 11,¹⁸⁸ in which the philosopher places before us his argument on matter. (So as to avoid repetition, anyone who wishes may find the proofs there.)

If, then, as they too believe, form is brought into being from things without being (*ex ouk ontôn*), and, as [our] argument shows, matter likewise (*palin*), and if the composite is not something over and above these, then the composite too, since it is not everlasting, will, if it is generated as a whole, be brought into being from things without being (*ek mê ontôn*).

Therefore nothing that comes to be, insofar as it comes to be, comes to be out of being, and, consequently, nor is anything that perishes, insofar as it perishes, resolved into being, but into non-being. (All particular things, when they come to be or perish, come to be or perish in respect of form alone and not in respect of the combination [of matter and form] and it is for this reason they come to be out of matter and are resolved once more into matter.)

14. But perhaps we have not done well to grant¹⁸⁹ that during the generation of particulars forms come into existence instantaneously without [a process of] generation but that matter only comes to be¹⁹⁰ serviceable and suited to the reception of forms.

We agree with [them] that the *perfection* of form occurs (*huphistathai*) instantaneously, but we hold [in addition] that generation is above all [generation of form]. The quickening and formation of the foetus in the womb is surely a generation not of matter but of form; for that the foetus is alive while it is still in the womb and that it continually (*aei*) advances towards the perfect form of life is clear to everyone, and that it is not the matter of an animal but its form that is its life and that matter is the substrate and the quickened body and is by the account proper to the nature¹⁹¹ of body inanimate and lifeless is also clear. So, if the foetus has a share in life even before it has come to term, albeit of as yet imperfect [life], and if life is the form of a creature and not its matter, and if it is [life] which over time and during a gradual [process of] generation advances to perfection and receives its perfection in the womb, then form does not come into existence instantaneously and without [a process of] generation.

And besides Proclus himself says in [his] eleventh argument in the present work¹⁹² that:

Artisans make what is as yet not matter¹⁹³ serviceable, and it is to the extent that they progress towards the production of matter that form arrives on the scene. Stones, for instance, are not, he says,¹⁹⁴ matter for the form of the house before they have been, say, dressed and fitted together, but [only] when they also receive these [treatments]. Therefore, he says, it is at the moment that they truly become matter that form is at once instantaneously present.

370,1 So, if (1) what Proclus says is true and artisans make matter serviceable and form arrives to the extent that they progress towards the production of matter, and (2) they do not progress towards the production of matter instantaneously,¹⁹⁵ then form does not arrive in matter instantaneously; and if that which does not come into existence instantaneously is brought into being by means of [a process of] generation, then just as artisans progress towards the production of matter, just so do they also progress towards the production of form. [And] the same account will also apply to¹⁹⁶ things that come to be through the agency of nature; for art is an imitation of nature.

Also, if the form of a house does not come to be [gradually], the builder does not produce it, and if the builder did not produce the form of the house, the builder would not be a builder, nor the shipwright be a shipwright, and a house would not be said to come to be, or a ship, or a garment, or anything else; for the matter of a ship is not the ship, or that of a garment the garment or that of a house the house, so that these things may be said to come to be when their matter has become serviceable. So, if artisans only make matter serviceable and the form of a house¹⁹⁷ or ship arrives instantaneously without [a process of] generation, then neither a house nor a ship nor anything else comes to be and artisans should be called producers of matter and not producers of form and generation should be described as production of matter and not as production of form. The entire usage of mankind – not only everyday usage, but that of all the experts – will have to be declared invalid (*anaireteon*). ‘Turn to the creation of mortal creatures’¹⁹⁸ says Plato’s creator to the celestial [gods], and ‘a human being generates a human being’¹⁹⁹ says his pupil [Aristotle]; so must one not say that a human being has come to be, or comes to be – or a horse or a grapevine or a fig tree or anything else? Each thing has its being (*estin*) and gets its name not from matter, which is common to all things, but from form; so if forms do not come to be, one should not speak of the generation of a human being or of a fig tree or of anything else; for these words are not indicative of matter, which is common [to everything], but of form, by which everything is differentiated from everything else.

But I think this [position of theirs] is more deserving of ridicule than of rebuttal; for during the generation of things form is seen to

shine forth little by little and to advance towards perfection over time, as one may observe in all things produced by art or by nature, as indeed we have shown²⁰⁰ in the case of foetuses, which are endowed with life and advance continuously (*aei*) towards the perfect form of life. 15

15. If, because the perfection of form occurs (*huphistasthai*) instantaneously, they will on that account deny that forms come to be and that they enter substrates little by little over time (*en kronôi*), let them also do away with the generation of matter and generation in general (*pas*). For if, as Proclus claims in the passage we have quoted,²⁰¹ stones and pieces of timber are not the matter of a house until they have been dressed and fitted together but [only] when they have received these [treatments] have they truly become [its] matter, and if at that same moment form too is at once instantaneously present, then stones and pieces of timber are not properly speaking serviceable matter for a house until the form arrives on the scene. And so being matter in the strict sense also comes to them instantaneously at the same time as the form; for matter and form are relatives and the one cannot exist without the other and what applies to the one must also apply to the other; for all relatives are like this. So, if the perfection of form arrives instantaneously, so too does the perfection of matter, *qua* matter, occur (*huphistasthai*) instantaneously once it is truly matter. So, if things which receive their own perfection instantaneously do not come to be, and if serviceable and genuine matter receives its perfection and potential *qua* matter when form supervenes along with it, then nor does matter come to be. So, if neither matter nor form come to be, what is left to come to be? There is nothing between these [two]; for, as Aristotle too thinks,²⁰² compounds consist of matter and form alone and have no need of any intermediate factor to join them together. So if, when the quarryman hews and dresses stones, he is producing neither (on their hypothesis) form, nor (because of a necessary argument that follows from their hypothesis) matter, what else could he be producing? What will the product (*to gignomenon*) be? Will they deny that the builder produces anything at all when he dresses stones? If, then, he is making anything when he dresses stones and fits them together, he must certainly be making either the matter of the house or its form. And if he is making its matter, then, since it is to the extent that matter comes to exist that form arrives in it, form too arrives over [a period of] time; and if over [a period of] time, then, as we have already stated, necessarily through [a process of] generation; for it would have no need of time for its instantiation (*huparxis*) if it did not also have need of generation. If any distinction at all is to be made between them (I mean between the generation of matter and that of form), [it is that] while [the workman] is cutting and dressing stones and pieces of timber he is also, by making it serviceable, producing 25 372,1 5 10 15 20 25 373,1

5 matter, but it is, strictly speaking, only when he assembles them and fits them together that he brings the form of the house into existence. And, speaking generally, if a thing which receives its perfection instantaneously does not undergo generation (*ginetai*), all generation will be eliminated; for if that which comes to be comes to be over time and does not receive perfect existence until the [period of] time laid down for its generation has come to an end, and if the present is the timeless conclusion of [a period of] time, then everything that comes to be receives its perfection as a thing that comes to be instantaneously; but, according to them, anything that receives its perfection
10 instantaneously does not come to be; therefore nothing that comes to be comes to be. And so generation would be eliminated from existing things.

16. So, if this is absurd, then it is not the case that a thing which receives its perfection instantaneously does not come to be, and we shall not deny that forms come to be on the ground that the perfection of forms arrives in substrates instantaneously.

And that not only proximate matter but forms too come to be both through the agency of craftsmen and through that of nature is also clear from the following.

25 The same stone, dressed to one and the same shape – squared, let us say – may be squared [to serve] as matter for a house or so that it will be suitable on its own as a seat (*kathedra*). So, if one squares a stone not as matter for a house but simply to be a base (*bathron*) or
374,1 a seat (*kathedra*),²⁰³ it is clear to everyone that the rectangular or²⁰⁴ cubic shape will be the form in it, as the shape of a man is [the form] in a statue, and that the matter will be the actual substance (*phusis*) of the stone. Therefore, when an artisan dresses a stone and produces
5 cubic shape in it, he is producing not matter but form. So it is clear that, even if [the block] is produced as matter for a house, the shape in it²⁰⁵ is produced as proximate form and not as matter; for the artisan puts such a shape as a form into the stone as matter, and
10 when this happens, it is sometimes the case that the [combination] of the two becomes the matter for a house. For how could it be other than ludicrous to say that a modeller of statues is producing not the form but the matter of the statue when he forms and shapes the wax or whatever other matter [he uses]? If he is producing matter when
15 he makes a man-like form, what will the form of the statue be? For a statue is nothing other than such and such matter shaped into the form of, say, a man.

[And] the same account applies to the generation of all natural
20 things. Taking sperm, for example, nature first changes it to blood, then thickens it, then divides it up for the generation of flesh and bones and the other homogeneous parts, then shapes it, then gives it life, then endows it with sensation. And what is this other than the gradual emergence (*hupostasis*) of the presence of the form of the

creature? After all, life and sensation,²⁰⁶ which supervene little by little in the creature while it is still being produced in the womb, are not, as we said earlier,²⁰⁷ the matter of the creature. For even though it is the case that the output and product of one power becomes matter²⁰⁸ for another power, each power nevertheless creates [what it creates] not as matter but as its own product, since the aim of each natural power is to take over its own matter and give it order and add appropriate form to it. The natural power that is situated in the liver, for example, takes over chylified food in the stomach and alters it and transforms it into the substance of blood and its output and product is the creation of the form of blood and nothing else; and so, if the natural power in the liver aims only at the form of blood and this [is what] it creates, then the liver is a creator of form, not of matter. And the power in each of the other parts, taking over the product of the liver, i.e. the blood, in its turn (*palin*) as its own matter, transforms it into the substance (*phusis*)²⁰⁹ of its [own] substrate, bone, perhaps, or flesh, or one of the others. So these [powers] use the blood as matter, while the one in the liver has manufactured it as its form and product, having for its part drawn upon, as I said,²¹⁰ the chylified food in the stomach for (*eis*) [the production of] the form of blood; since²¹¹ the art of bread-making too fabricates the form of bread as [its] particular form and its own product and in due course its output becomes matter for the transformative power in the stomach. 25

And the manufacturers of drugs²¹² too take the products of nature as their own matter (minerals, for example, and herbs, and so on),²¹³ which nature has produced not as future matter for them but as its own form and product, and produce the form of the drugs in them and have this as their goal, and [the drugs] in their turn become matter for the doctor. 376,1

But why spin the argument out with [more] examples? For, speaking generally, if it is indeed the case that both art and nature take over matter of one kind or another and add form of one kind or another to it, every art and every natural power when it creates anything, creates it not as matter but in every instance produces it as form of one kind or another. 5 10

And no matter, *qua* matter, subsists in underlying matter of another kind, because [matter] is the first substrate for everything [else]. So-called proximate matter – the [four] elements and their analogues in our body, the humours, for example – is not matter in the strict sense but [only] matter relative to something else. [Such things] are matter in relation to the compound bodies that will be [composed] of them, but considered in their own right they are compounds of matter and form, their matter being three-dimensional extension and their form fieriness, say, or airiness.²¹⁴ And the same goes for everything else. 15 20

It has been shown, then, that, even though it is the case that the

product of one [power] becomes matter for another, every creative power is the creator of form. (Unless one were to consider an exception (*khôris*) the general nature in every creature, which co-ordinates the outputs of each [particular] power to a single end, the preservation of the creature. But in any case the creating nature in each *part* produces its own particular product not as matter but as form.) If, then, every art and every nature²¹⁵ produces form of one kind or another and not matter, and if, as even they agree, all forms have come into being out of non-being and perish once more into non-being when the combination [of matter and form] is dissolved, then nothing that comes to be comes to be out of being or perishes again into being but generation is out of non-being and perishing is in every case the dissolution of the things that perish into non-being.

17. Pressed by these arguments, some claim that generation is neither of matter nor of form but of that which is the composite of both, and that perishing is also of this. Composite, they claim, comes to be out of incomposite. For if that which comes to be is a human being or an ox or an olive tree or some such thing, and if each of these has come to be composite from non-composite (*ex ou sunthetou*), then it is clear that generation is of the composite. After all, plants and animals and everything [else] that comes to be are composite, and composite things come to be out of underlying matter and are dissolved back into it at the end. And so generation is out of being and perishing back into being.

One would reply to these people too first and foremost that if it has been shown²¹⁶ that the composite does not switch as a whole from non-being to being, which [is what] generation is, and, moreover, is not dissolved as a whole from being into non-being, which [is what] perishing is, generation could not properly speaking be of the composite; for, even though the composite may be said to come to be, generation is predicated of the whole from [its being true of] a part, as we for instance say that a man is walking from [its being true of] a part [of him], [i.e.] his body.

And even if one were to agree that generation is of the composite on the ground that it is precisely combination of one kind or another that takes place, in the first place, if composites consist of matter and form, it is not only out of something that exists, [namely] matter, but also out of something which does not [previously] exist, [namely] form, that the composite comes to be – and, as a consequence, also perishes back into both being and non-being. So why do they separate off the half [of this] and claim that the composite comes to be out of being and that nothing comes to be out of non-being? For, if we think of the composite as something which comes to be, it is seen to come to be out of matter and form, of which the one, matter, existed prior to the process of composition, while the other, form, did not exist, and so generation is out

of both being and non-being and perishing into both being and non-being. 10

[And], in the second place, if what comes to be is neither matter (because, according to them, matter too is ungenerated and imperishable) nor yet the form²¹⁷ (because this, so they say, either exists or does not exist without [a process of] generation or perishing), then generation is merely the aggregation of simple [elements] and perishing their disaggregation once more. But there is no aggregation of a substance; in the case of a heap of seeds or stones or other similar things, for instance, the heap is not the instantiation of a kind of substance but merely the combining of, say, grains of corn; and it turns out that Empedocles' statement to the effect that 'there is no permanent nature (*phusis*) of anything, but [merely] a mixing and a separation of the things that have been mixed' is true. But Aristotle has adequately refuted this position in *On Generation and Perishing*.²¹⁸ So, if generation is not merely combination, then that which comes to be does not come to be merely to the extent that it is composite. 15 20 25

And if generation is not merely of the composite²¹⁹ but there is also a kind of generation of substance [involved] in the generation of the composite, and if nothing besides matter and form is observed in any composite, there is every necessity that generation should be either of substance in its formal aspect (*kata to eidos*) or in its material aspect (*kata tēn hulēn*) or of the combination of the two. 379,1

But matter neither comes to be nor perishes. Therefore generation is not of matter, and therefore not of the combination [of matter and form] either. For, if this were so – if, that is, the combination of the two (the composite, I mean) were to come to be as a whole, that is, both in its material aspect and in its formal aspect – matter would again be coming to be. It remains, therefore, that generation is only of form. 5

And so a kind of aggregation or combining of simple [elements] does take place, but much more importantly (*pollōi proteron*) there is also a generation of substance in its formal aspect; for it is because this latter comes to be in matter as a result of its not being able to exist on its own that the composite incidentally comes to be as well. It is as though one were to say of the generation of a statue that there is generation of the composite (I mean of the combination of bronze and a particular shape) but that the generation is obviously primarily of the particular shape that exists in the bronze, and that the composite *qua* composite also incidentally comes to be because this shape cannot exist on its own without matter. 10 15 20

And so, both in the case of things that are produced by nature and that of those that are produced by art, generation is properly speaking of forms and, because such forms are not separable from matter, the composite comes to be at the same time²²⁰ as a by-product (*ek*

25 *parepomenou*). So generation is not therefore primarily of the composite.

380,1 Now that it has been shown that what comes to be in the strict sense is enmattered forms and that these, as they themselves concede, both come into existence out of non-being and are dissolved back into non-being when they perish, we can also confidently assert against [our opponents] that nothing that comes to be, insofar as it comes to be in the strict sense, comes to be out of being, and that
5 nothing that perishes, insofar as it perishes, is dissolved into being, but that generation is out of absolute non-being and perishing is dissolution back into absolute non-being. For²²¹ it is to the thing to which generation in the strict sense belongs that perishing also of necessity belongs; [and] therefore, if generation is of form, perishing
10 will certainly also be of [form].

And now that this much-parroted axiom (as they would call it) of the Hellenes that everything which comes to be comes to be out of being has been exposed as false, and [it has been shown that] the truth is rather that nothing which comes to be, insofar as it comes to be,
15 be, comes to be out of being, nor is it necessary that the cosmos should, if it has come to be, have come to be out of being, and we shall not be compelled to say that it is ungenerated so as to avoid the impossible consequences that would follow were that the case.²²²

The End of the Refutation of the Ninth Argument

The Tenth Argument of Proclus the Successor

20 The tenth [argument]: each of the elements of which the cosmos is [composed], when in its own²²³ place, either remains stationary²²⁴ (*menein*) or moves in a circle.²²⁵ It is when it is not in its own place
381,1 that it moves in a straight line striving to get to it.²²⁶ So if the elements of the universe either remain stationary or move in a circle, and if they remain stationary in their natural place are in a natural state and if they move in a circle have neither a beginning nor an end
5 to their movement, then it is clear that the universe too is unchanging,²²⁷ since some things keep to their natural places and others are moving without beginning or end. (Things here²²⁸ change because the [elements] of which they are composed are in an alien place and are striving to gain their own place.)

10 So if the elements of the universe are in their own places and none [of them taken as a] whole²²⁹ travels²³⁰ (*pheresthai*) to an alien place and what is in its own place²³¹ is not forced to abandon²³² its own place, then the universe is necessarily unchanging, since all the wholes within it are always in a natural state, both those that remain stationary and those that move.²³³

15 Well then, if, before the universe was ordered,²³⁴ (1)²³⁵ all things

(*hekasta*)²³⁶ were in their own places, they either remained stationary or moved in a circle; and so, once again, the universe was ordered, [even] before it was ordered, and did not have a beginning to [its] being ordered, all things being in the same condition both now and previously.

And if (2) they were in alien places (being bodies, they were certainly in places [of some kind]), if, on the one hand, (a) this was the case even though their natural places were different, who put (*metatithenai*)²³⁷ them in [these] alien [places]? Being bodies, they were not [themselves] responsible for this change of position (*metathesis*). And so there [are]²³⁸ two principles²³⁹ (*arkhê*), one of the unnatural, the other of the natural, and the unnatural [is] prior (*proteros*) to the natural. And that [is the case] even though it is unnatural [only] as being a departure from nature²⁴⁰ [and] if that nature were entirely non-existent would not itself even be contrary to nature. ([Similarly], the contrary to art does not exist if art does not, for that which is contrary to anything will [only] exist when the thing it is contrary to exists.) And so, even if there were natural places, given that they [sc. the elements] did not [ever] come to be in them, it is unclear whether they even were natural [places], since there were [other places]²⁴¹ prior (*presbuteros*) [to them] for an infinite time.²⁴² And if, on the other hand, (b) there were not other [places] that were their own,²⁴³ neither would the ones in which they were have been alien; for the alien exists with reference to what is [one's] own.

And if then²⁴⁴ too things²⁴⁵ were not in places alien to the things they contained, just as present things (*ta nun*) too are not in places alien to those that exist [now], they too were in a natural state, just as the present ones are. And so there will always be [a] cosmos, with different [places] being natural or unnatural to the things in it at different times. *Qua* cosmos, therefore, it is everlasting. Only the qualitative [element] (*to toionde*)²⁴⁶ in it, if that, does not exist for ever. So the universe will have changed its form, but the universe will exist for ever. And, as that [earlier universe] was unnatural in relation to the present one, so too is the present one unnatural in relation to it. And all things were in their own places both in that [earlier universe] and in this one, but in different ones at different times. Empedocles too wisely produces his cosmos in stages (*parameros*), except that he does so many times and we [only] twice.²⁴⁷

The Sections of the Refutation of the Tenth Argument

1. That Proclus has constructed the tenth proof from two false premises, having put together two arguments from these two premises.
2. That it is false that those [portions] of the elements that are in [their] natural place are unchanging. Including [a demonstration]

that this natural place of the whole is also the natural [place] of the part.

5 3. That, while remaining in their own or natural place, the elements change with every kind of change.

10 4. That if neither any of the elements nor the whole cosmos is seen to change as a whole, that is no proof that the cosmos is also completely unchanging and imperishable. On the contrary, rather is it the case that the perishing and generation of [its] parts is proof that the whole cosmos is also of the same nature.

15 5. That nor is [the fact that] the heaven exhibits no kind of change other than [change] of place evidence that the cosmos is imperishable.

6. That it is feeble to claim that things that move in a circle, for the very reason that they do move in a circle, neither begin nor cease moving.

20 7. That the continuation of the argument contains nothing to the point but merely refutes a Platonic hypothesis.

8. That even in [this continuation], even though it is not necessary [to his argument], Proclus argues fallaciously.

The Refutation of the Tenth Argument

25 1. In this [proof] the philosopher has assumed two false premises from which, with the concession of further falsehood, the conclusion he is aiming at (*to prokeimenon*) is established. The first is as follows.

384,1 Things in their natural place, he says, are, because they are in a natural state, unchanging. For things that change change because they are in alien places. Our bodies, for instance, change because the elements of which they consist are being kept in an unnatural place. The fire in us, for example, since it is, contrary to nature, low [in the cosmos], races²⁴⁸ upwards out of a desire to reach [its] natural place – just as, conversely, the part consisting of earth [races] downwards. This is the source of the conflict between and separation of the parts of a compound which result in the disintegration of the complex (*tou sunestôtos*) when the elements of a compound move in opposite directions.

That²⁴⁹ is one false assumption. Here is the second:

10 Things, he says, that move in a circle have neither a beginning nor an end to their movement.

From these two hypotheses he constructs two arguments, one of them as follows:

15 If, he says, each of the parts of the cosmos is in [its] natural place, and [if] things that are in their natural place are unchanging, then both the parts of the cosmos and the cosmos which is composed of them will be unchanging.

And [here is] the second:

If, he says, things that move in a circle have neither a beginning nor an end to their movement, and [if] the heaven moves in a circle, then [the heaven] has neither a beginning nor an end to its movement.

Obviously, the philosopher's tenth²⁵⁰ argument is going to come to nothing. 20

2. That it is false that nothing situated in [its] natural place changes is clear from the following:²⁵¹

If all things that change change while in an alien place,²⁵² then 25
nothing not in an alien place changes.²⁵³ [This is so] because if the
consequent is false, the antecedent necessarily is too, since if it is
false that nothing that is not in an alien place changes,²⁵⁴ then it is 385,1
possible for things which are in a non-alien place to change as well,
[and] therefore it is false that all things that change change while in
an alien place. So should this²⁵⁵ be true, then everything that is not 5
in an alien place is unchanging. But everything that is not in an alien
place is in its own or natural place. Therefore everything that is in
its own or natural place is unchanging.²⁵⁶

Well then, when the whole of a thing is in [its] natural place, the 10
parts of it that are in the whole, are also in [their] natural place. For
the same place is natural to the whole and the part, as was shown
earlier.²⁵⁷ Therefore all of the parts of the elements situated in their
own totality, being in [their] natural place, will be unchanging. 15

And surely it is also the case that the parts of the elements that
are now in unnatural places will all in the long run (*tôi makrôi*
khronôi) come to be in [their] natural places (for nothing remains in
an unnatural [situation] for an infinite time) and once they have done
so will remain in them; for they certainly do not leave [their] own 20
places before coming to rest in them. Therefore even portions of the
elements that are now in an unnatural [position] will at some time
come to be in the natural [one] and be unchanging.

So if the portions of the elements that are now in [their] natural
[place] are unchanging because they are in [their] natural [place], 25
and those that are in an unnatural [one] will at some time come to be
in [their] natural [one] and be unchanging, then there will be a time
when there is nothing that is changing. So, with nothing changing, 386,1
all change and generation will disappear from the universe.

So if this is impossible as long as there is a cosmos, then it is also 5
false to say that everything that changes changes while it is in an
alien place. And if this is false, then it is also possible for the elements
to change while in their own or natural place.

Therefore, [just] because the totalities of the elements are now in
[their] natural place, it is not automatically (*ēdē*) necessary that both 10
they and the cosmos that is composed of them should be unchanging.

And that the parts that are in the whole are in [their] natural place

(which we used as an additional assumption in our argument), while it is plain from the evidence (*enargeia*) [of the facts themselves], one can also see from the following (*enteuthen*):

- 15 If none of the constituent parts of, say, earth is in [its] natural place, neither will the whole that is composed of them be in [its] natural place. After all, the whole is nothing other than all the parts. For just as earth as a whole occupies its whole and natural place,²⁵⁸ so does each of its parts that is connected to the whole occupy a part of [that] whole and natural place. And so, if the whole of the place of earth is natural to earth as a whole, then so too is the part of [that] place which a part of earth occupies natural to [that] part. For even if, on its own and detached, as it were, from the whole, the part does not occupy a place of its own (*idios*), it does at all events, as included in the whole, occupy some part of the whole place.

- 387,1 And why need anyone wishing to show that parts connected to their own totality occupy [their] own or natural place argue for what is [after all] clear? Even Proclus himself in the present argument, knowing this full well, says, to quote his exact words, ‘things here change because the [elements] of which they are composed are in an alien place and are striving to gain their own place’²⁵⁹ and that ‘it is when they are not in their own place that they move in a straight line striving to get to it’²⁶⁰ and that ‘they are, being bodies, certainly in places [of some kind]’,²⁶¹ and that ‘if there is a place that is unnatural for something, much more so is there also a natural [one] for it. For the unnatural is a departure from nature, and if [nature] does not even exist, the unnatural would not exist either; for that which is contrary to anything’, he says, ‘will [only] exist when that thing exists’.²⁶² So if all things that move in a straight line are either portions of the elements or things that are composed of them, and [if] these are in an alien place, and [if] things that are in an alien place have come to be in [that] alien [place] by leaving their own or natural place, then there is some proper and natural place for parts of elements too. And again, if things in an alien place move in a straight line as they strive to move from [that] alien place to [their] natural one, fire [striving] upwards, earth downwards, and [if] each of them strives towards its own totality, then that which is in its own totality is also in [its] natural place.

- 25 Therefore, even on the basis of the premises²⁶³ that Proclus provides us with, it is clear that the place of all water is²⁶⁴ [the] natural [place] of a portion [of water] too, and that the [place] of all fire is [the] natural [place] of a portion [of fire] too, [and that these are the places] to which the portions were straining when they were in an unnatural place.

It has, then, been shown that the proper and natural place of the element as a whole is also proper²⁶⁵ and natural for the part.

- 5 But [now] we must return once more to the question at issue (*to prokeimenon*).

If the unnatural is a departure from the natural, and if the natural is prior to the unnatural, as Proclus himself has stated in the present argument (*en toutois*) (for it is not possible for the unnatural to exist if the natural does not exist; 'for that which is contrary to anything will [only] exist when the thing it is contrary to exists'),²⁶⁶ then the parts of elements that are in an unnatural place were previously in [their] natural place. If they were not previously in [their] natural place, they would not now be in an unnatural [place] either; for that which is in an unnatural [place] has come to be in [that] unnatural [place] by leaving the natural [one], and so before it came to be in an unnatural place it was in [its] natural place. 10 15

And if, after previously being in [its] natural [place], it is now in an unnatural [one], then that which is in [its] natural place is not unchanging on account of its possessing naturalness (*to kata phusin*); after all, it changes from the natural place in which it was previously to the unnatural one in which it is now. And nor therefore is it necessary that the totalities of the elements should be unreceptive of change just because they are in [their] natural places. And nor therefore is the universe that is composed of them unreceptive of change, as Proclus has thought to infer from a false assumption in the present argument (*en toutois*). If the parts of the universe are not unchanging²⁶⁷ by nature, neither will the universe be unchanging by nature, for if that of which a thing consists is subject to change, it too will necessarily be subject to change. For, if the elements change, it is certainly not possible for that which is composed of them to remain unchanging. 20 25 389,1 5

And at the same time it is shown yet again by these [arguments] that, if it is indeed the case that (*eiper*) they come to be in unnatural places by leaving their own totality, things in their own totality too are occupying [their] own or natural place. And something that has come to be in an unnatural place *has* left [its] natural [one]. Therefore that which has left its own totality has also left [its] natural place. And so something that is in its own totality is also in [its] natural place. Therefore the same place is natural for the whole and for the part. 10 15

3. But perhaps, to get [his] argument straight from the start, it is worth inquiring of the philosopher what he has in mind when he says (*pôs phêsin*) that everything that changes [only] changes when it is in an alien place and that therefore, given that the elements currently (*nun*) remain in [their] natural place, both they and the things [formed] from them are unchanging. Is he referring to change of place and [claiming] that things which are in [their] natural place never leave it and come to be in an unnatural place, or [does he] perhaps [mean], with a reference to another kind of change, that things that are in their own place do not alter, or do not grow, or do not waste away, or do not come to be or perish? 20 25

Well, whatever it is he means, he is refuted both by the argument and the evidence (*enargeia*) of the facts themselves.²⁶⁸

390,1 If, on the one hand, he means that things which are in their own places do not change position and so never leave those [places] for alien [ones] (he more or less indicated this when he said,²⁶⁹ 'it is when they are not in their own place that they move in a straight line
5 striving to get to it', and in all of what follows he talks of change of place), there will be nothing that changes from its own place to an alien [one]. [And] therefore the elements will never move contrary to
10 nature. But this is contrary to the clear evidence [of the facts]. Soil and water, leaving their own place, are carried (*pheresthai*) upwards by force and contrary to nature, and fire, viz. thunderbolts and flashes of lightning, is squeezed out and travels (*pheresthai*) downwards from above.

15 And, speaking generally, if there is movement (*metabolê*) of elements from an unnatural place to [their] natural [one], there must *a fortiori* also be [movement] from [their] natural [place] to an unnatural [one]. That which is in an alien place has either (1) been in it for an infinite time or (2) changed to it from another place which was also
20 alien [to it] or (3) [changed to it] from its own and natural place, and there is no other possibility.

But neither (1) is it possible for a thing to be in an alien place for an infinite time without ever coming to be in its own [place] (for it is more beautiful not to exist than to be in an unnatural [situation] for an infinite time and nature aims at what is most beautiful,²⁷⁰ 'and
25 God wanted all things to be good and nothing to be bad as far as was possible';²⁷¹ and besides, it would be unclear, as Proclus himself says in the present [argument],²⁷² whether the one²⁷³ in which it never appeared (*ginesthai*) was even natural [to it]), nor yet can it (2) switch
391,1 from an alien place to one still (*palin*) alien but differing in kind. Movement from alien place to alien place simply does not occur.
5 Because all the elements are either heavy or light, the natural places of the elements are also two [in number], the lower or central [zone] being the natural place of the heavy ones, the upper or outer (*perix*) of the light ones. So all change of place on the part of the elements is
10 either downwards from above or upwards from below. Movement (*metabolê*) upwards from below on the part of the light elements (air and fire) is movement from an alien and unnatural [place] to [their] own and natural [place] but on the part of the heavy elements (earth and water) movement from [their] own and natural place to an alien and unnatural [one]; [movement] downwards from above on the part
15 of the light elements is [movement] from [their] own [place] to an alien [one], on the part of the heavy ones the reverse. And so all change of place on the part of the elements is either from their own [place] to an alien [one] or from an alien [one] to their own. There cannot be movement from an alien [place] to [one that is also] alien

but differs in kind, unless when someone propels²⁷⁴ a stone horizontally (*hôs epi ta plagia*). But [such] movement takes place not from one [place] to another²⁷⁵ that differs in kind but horizontally within the same place.²⁷⁶ 20

And besides, even should movement from one alien place to another take place, the same argument will arise again with regard to the [place] from which [a thing] has moved. Either it had been in it for an infinite time or it had moved to it from another, also unnatural, place, and so on *ad infinitum*; or, if these [alternatives are both] impossible, (3) there is every necessity that things which are in an unnatural place should have at some time changed to it from [their] own and natural [place]. 25 392,1

And so it is not merely possible but even necessary that if there is movement from an alien to a proper place, there should *a fortiori* also be movement from a proper to an alien. [And] it has therefore been shown both through argument and through induction²⁷⁷ that if the elements are naturally subject to change, it is necessarily the case that they move from [their] natural place to an unnatural [one]. And so, just because a thing is stationary (*menein*) in its own place, we shall not on that account also concede that it never leaves its own place. 5 10

If, then, when the philosopher says that things which are stationary in their natural places are unchanging, he means that it is with respect to place that they are unchanging, so that they never leave [their] own place for an alien [one], that is how we shall refute his argument. 15

And if, on the other hand, he means that things which are stationary in [their] natural place are unchanging with respect to some other form of change, in that case too the fallacy would be evident and the supposition false. Water, while remaining in its own totality, alters (*alloiousthai*) when it is heated or cooled or takes on other kinds of qualities; moreover, it perishes by evaporating and changing into air and, when it putrefies, [still] in its own totality, generates countless forms of life. And in the same fashion air too, while occupying [its] natural place, not only alters when heated or cooled but, upon perishing, changes into water by condensation or into fire by rarefaction, and in putrefying produces many kinds of airborne creatures. And what could one say of earth, which, while remaining in its own place, both undergoes every kind of alteration and changes into countless kinds of plants and minerals? Even the smoke-like exhalations rising from it provide proof of its change of form. And the so-called thunderbolts²⁷⁸ discharged downwards from above are evidence of change [taking place] in the natural place of fire. And the bodies compounded of the four elements and resident in the waters and on the earth (I mean animals and plants) and all of the minerals formed under the earth and those generated in the waters, while 5 10 393,1

remaining (*menein*) in [their] own totality (I mean in earth or in water, since these elements predominate in them), manifestly alter in their entirety (*hola kath' hola auta*) as they grow or waste away
 15 [or] come into being or perish.

[The idea] then [that] the elements are unchanging while they remain in [their] natural place is altogether false. On the contrary, they have been shown to undergo every kind of change even while they remain in [their] own places.

'But', he says:

20 the parts of the elements are able to change even while remaining in [their] natural places, but it is impossible for the totalities of the elements themselves to change as long as they remain in [their] natural place; for the elements in their entirety clearly do not undergo any change.²⁷⁹

25 Well, anyone who says this is begging nothing other than the original [question] and expecting the position under scrutiny (*to zêtoumenon*) to be conceded to him. For we are currently (*nun*) asking whether the universe is unchanging and everlasting: and it would be unchanging
 394,1 if none of the elements of which it is composed changes in its entirety.²⁸⁰ For simultaneously with [any] change to the elements of which a thing is composed, the thing composed of them must change
 5 as well. So anyone who wishes to show that the cosmos is everlasting will need to demonstrate that each of the elements never departs in its entirety from its natural form. So anyone who, without argument or proof, claims that none of the elements in its entirety changes from [its] natural [form] to an unnatural one is begging the very question
 10 [at issue].²⁸¹ For if it were universally true that no entity whatsoever, whether a whole or a part, that is in [its] natural place or its natural form ever leaves it and changes to an unnatural one, perhaps it would be reasonable to think the same of the totality²⁸² of the elements as
 15 well. But if all the parts of the elements, even while remaining in [their] natural places, exhibit every kind of change, how can they show that the totalities of the elements do not also undergo the same [changes] as their own parts? It is, I think, much more reasonable
 20 and [indeed] necessary to suppose the opposite. For if no part of an element is unchanging but any part of them one takes is generated and perishable and alters with every kind of change, how will it not
 25 be obvious that it is necessary to make the same assumptions in regard to the whole of each element as well when in everything else we see that wholes are affected in the same way as [their] parts? For just as a part of an animal changes as it [sc. the part] grows or wastes away or alters qualitatively or changes position [or] as it comes to be
 395,1 and perishes,²⁸³ so too does the animal as a whole undergo the same [changes]. And we have shown earlier²⁸⁴ that it is not even the case

that the totalities of the elements continuously remain numerically the same. So how is it not both reasonable and necessary that the whole should undergo the same [changes] as its own parts?

4. After all, even if the elements in their entirety are not currently seen to be changing, this is not proof that they are absolutely unchanging in their nature. In fact, there is every necessity that everything that exists, even if it is [only] present among existing things for a short time, should, while it exists, be, [taken] as a whole, unchanging, and not only [taken] as a whole, but also with regard to those of its parts that are sovereign²⁸⁵ and responsible for the preservation (*sunektikos*)²⁸⁶ of the whole, as is the case, to take an example, with a human being. For while [a human being] is [numbered] among the things that exist, he is necessarily, [taken] as a whole, unchanging, because if he changes as a whole, he immediately passes over into non-being. And obviously the most sovereign parts of a living creature, such as the heart, the liver, the lungs, the brain, and so on, are also, taken as wholes, unchanging. Whichever of them changes as a whole, whether by leaving its own place or by altogether departing from its natural proportions (*summetria*), immediately also brings about the destruction of the whole animal. So what is there to prevent someone from employing the same argument and saying that if this [or that] animal has not so far changed as a whole, and if moreover (*palin*) none of its sovereign and preserving parts is observed to change as a whole, then both it and each of the mentioned parts are also absolutely unchanging and imperishable? After all, the animal, as long as it is in existence, is not seen to change in the stated²⁸⁷ manner.

Well clearly, even if it is not seen to, each of the parts in an animal does change as a whole while the animal is [still] in existence. And the change and alteration of the parts, [their] perishing and generation,²⁸⁸ is certainly very strong proof that the whole will also at some point suffer²⁸⁹ the same [fate] as its own parts. Therefore it is certainly necessary in the case of the cosmos too that, as long as the cosmos exists, neither it as a whole nor any of its sovereign parts [must] change; for the perishing of the whole of a part of necessity also brings about the perishing of the whole;²⁹⁰ for the cosmos is constituted through the blending and harmony of all [of its parts]. But here again the change of each of the elements at the level of [their] parts (*kata moria*), [their] generation and perishing,²⁹¹ contains clear proof of the perishing both of each element as a whole and of the cosmos composed of them for those who are not altogether witless and who do not put their own preconceptions before the truth.²⁹²

5. But nor should the fact that things in the heavens exhibit only change of place and not any other kind of change disturb those who are not²⁹³ already completely under the sway of the notion²⁹⁴ of the

25 everlastingness of the cosmos. We shall, if God approves, undertake
the detailed examination of this [question] in our *Against Aristotle*.²⁹⁵
Now, we shall merely say that in the bodies of animals too the most
sovereign of the parts, the heart, [the part] from which the vital
397,1 pneuma²⁹⁶ is produced and distributed throughout the entire body,
while it is in perpetual movement in [regard to] change of place, is
not tolerant (*dektikos*) of all of the alterations associated with the
other changes (*pathê*)²⁹⁷ if it is to be sound and endure. Indeed, it does
5 not, as the doctors²⁹⁸ teach us, tolerate either incision (*diairesis*),²⁹⁹
especially to the ventricles, or open abscesses,³⁰⁰ but self-destructs
and destroys the entire body as well almost before their onset.³⁰¹ And
10 it is certainly the case that the part of the whole most responsible for
[its] preservation must itself, as long as the whole is to remain in
existence and be preserved intact, remain as far as possible in [its]
natural place and form so that it can preserve the whole and restore
15 ailing parts to a natural condition, [and] the heavenly part of the
cosmos, by whose movement all of the inner bodies are ruled³⁰² is
such [a part]. So it is reasonable that this latter too should, above all
other [parts], be free of disease and ageless as long as God wishes this
universe to be preserved, but it is not on that account reasonable to
20 automatically (*êdê*) assume that it also completely impassive and
imperishable by nature.³⁰³

This brings to a conclusion our demonstration that it is false that
all things³⁰⁴ that remain in [their] natural place are unchanging and
that on that account the entire cosmos too is unchanging and imper-
ishable.

25 6. As for the claim that the things which move in a circle have
neither a beginning nor an end to their movement and the expecta-
tion that this should be accepted without any proof, as though it were
some kind of common conception, I am unsure whether it is seriously
398,1 intended or a joke. Nor, just because it is impossible to identify
(*lambanein*) a defined beginning or end to movement in a circle
5 because the parts of a circle are joined together at every point
(*pantakhothen*), is that proof that movement in a circle neither
begins nor ends but is [of] infinite [duration]. The circle itself and the
sphere (I am referring to the body so shaped) also have no defined
physical (*sômatikos*) beginning or end because their parts are, as I
10 said, joined together at every point, but even so are not infinite in size
(*megethos*). For if a circle [can be] larger or smaller, and a sphere
likewise, and [if] every circle or sphere can be contained by a rectilin-
15 ear figure, it is clearly impossible for either a circle or a sphere to be
of infinite extension. After all, there cannot be a larger or a smaller
than the infinite and the infinite certainly cannot be contained, and,
as Aristotle says,³⁰⁵ talking of an infinite circle is like talking of an
infinite cubit,³⁰⁶ for both 'circle' and 'sphere' refer to defined and
20 circumscribed figures. So, just as it is impossible to identify (*lam-*

banein) the beginning of a circle but there is no necessity on that account that a circle should extend to infinity in its magnitude, in the same way, even if it is not possible to identify a defined starting-point from which movement in a circle commences because [its] end is joined to its beginning, it is not therefore necessary to think that that movement simply did not begin and will not end. For if one were to observe (*noein*) an artificial sphere, such as that of Aratus,³⁰⁷ in motion, especially without having seen when it began moving, one would be unable to name either the beginning or the end of its movement, but its movement is not, one supposes, on that account without a beginning or an end. So why is it remarkable that in the case of the heavenly [regions] and all [the bodies] that move in a circle³⁰⁸ it should be impossible to identify [the point] from which they began to move – from the Ram, perhaps, or some other [sign]³⁰⁹ – because [their] parts are, as I said,³¹⁰ joined to one another at every point and for that reason no [part] is the first to initiate the movement but they all begin and stop moving at the same time, but that there should nevertheless be some first point (*arkhê*) of time from which they began to move? For if the universe is not ungenerated, if the fabric³¹¹ of the heaven had a beginning, its movement too will obviously have a beginning; and so too, if it is going to perish, simultaneously with the perishing of the heaven, [its] movement must also cease.

In truth there appears to be no necessity that movement in a circle should, for the very reason that it *is*³¹² circular, have neither begun to exist at some point (*pote*) nor be going to cease to exist. And if they are depending on the proofs of Aristotle³¹³ when they say that movement in a circle is without a beginning or an end, we shall see whether any of those arguments has [any] cogency when, if God grants it, we get to them;³¹⁴ at present there is no need to grapple with them, since the philosopher has not proffered anything resembling them in his own arguments. [At that time] we shall also ask³¹⁵ whether there are any arguments by means of which we can show that movement in a circle cannot be everlasting. But for the present, since we have undertaken to do no more than raise objections to the proofs of Proclus, we have, as far as we have been able, advanced only considerations [contributing] towards the refutation of his arguments.³¹⁶

7. Thus far we have refuted the [arguments] in the tenth proof which obscure (*okhlein*)³¹⁷ the truth with [a degree of] plausibility. But, whereas Plato says³¹⁸ that the ordered has come to be out of what was moving in a discordant and disorderly manner and holds that God is the cause of pretty much (*hoionei*) only the order of the cosmos, in what follows³¹⁹ Proclus attempts to prove that this hypothesis is impossible. For that reason I forego scrutiny of what he has said, since the truth is in no way damaged by it.³²⁰ After all, the true account lays down (*hupotithenai*) that the cosmos has come to be out of absolute non-being.³²¹ So, even if what is said by Proclus will seem

to anybody to have reason, it refutes nothing except Plato's hypothesis. And clearly, just because [that] hypothesis is absurd, it will not follow that it was not even stated by Plato. For, using the same move (20) (*tropos*), what is there to prevent every absurd hypothesis of the ancients from also being represented (*anaplattesthai*) as not even having been stated by the ancients on the ground (*ek*) that it doesn't square with the truth?³²² The result of this will be that nobody has ever made a false statement; when a false position is disproved, the person who disproves it will infer that, since it is false, the person (25) who put it forward did not ever espouse it. So I shall pass over the rest of what he goes on to say, but perhaps it is not out of place to consider this one issue.

8. 'If, he says:³²³

401,1 before the generation of the cosmos the elements were in alien places, if, on the one hand, their natural places were different, who put them in [those] alien places? Being bodies, they were not [themselves] responsible for their change of position. So (5) there were, he says, two principles, one of the natural, the other of the unnatural.

Surely then, since even now some things change from [their] natural [places] to unnatural ones – as is the case when fire comes to be low down or water high up – and are not, being bodies, themselves responsible for their change of position, it is also necessary to assume (10) two principles now, one that moves bodies to an unnatural [place], the other the cause both of their natural positioning (*thesis*) and, in the case of things which have left (*ekpiptein*) [their] natural place, of their return from an unnatural [place] to the natural one. This being (15) the case (*oun*), the present argument seems to me to have no cogency. For, as we shall also show elsewhere, God willing, things that are receptive of both the natural and the unnatural are not brought into [these] opposed [conditions] by opposed powers but [are brought] into (20) the natural [one] by the natural and preservative power of the things [themselves], and slip into the unnatural [one] through its privation. And privation comes to things as a result of the limited nature of [their] (25) power. A charioteer and a helmsman are responsible for both the preservation and the destruction of what is under [their control], the former in the case of a chariot, the latter in that of a ship, but essentially for [their] preservation, [only] accidentally for [their] destruction. For when the power³²⁴ of [such] skilled operators (*tekhnitês*) grows weak because of its limited nature, what then happens is that the things (402,1) previously preserved by that power pass over, in the absence of that which preserves [them], into [its] opposite, destruction.³²⁵

Next, after establishing that the natural is prior to the unnatural, Proclus concludes:³²⁶

And so, even if there were natural places, given that they [sc. the elements] did not [ever] come to be in them, it is unclear whether they even were natural [places], since there were [others] prior [to them] for an infinite time. 5

Proclus has combined incompatibles. Earlier he said:

If, on the one hand, [these places] were different from their natural ones, who put them in [these] alien places?³²⁷ 10

And, after adding to this, as an absurd consequence, that it is a second principle that has put them in [these] alien places, he says here:

even if there were natural places, given that they [sc. the elements] did not [ever] come to be in them, it is unclear whether they even were natural [places] since there were [others] prior [to them] for an infinite time. 15

Well, if they were in unnatural places for an infinite time and never came to be in [their] natural [places], they were clearly not moved from a natural [state] to an unnatural [one]. And so they did not even have [any] cause of a change of position (*metathesis*). So what does he mean when he says that there must be a second principle, that of their change (*metathesis*) from a natural [state] to an unnatural one, for things that have not even been moved at all? 20

And if, again, on account of their being in an unnatural [state], the philosopher believes that there must be some other cause of their change (*metathesis*) to an unnatural [state], clearly [this means] from [their] natural place to an unnatural one. But if they were put in unnatural places, they were clearly in [their] natural places before they were put [in unnatural ones]. So they were not in unnatural [places] for an infinite time. And so it is *not* unclear whether those places from which they changed to unnatural places were natural to them; for a change to an unnatural [state] in every case takes place out of a natural [one], as we recently³²⁸ showed. 25 403,1 5

So of the two absurd [conclusions], only one, if either, necessarily follows, and not both, as the philosopher concluded. For either (1) if the elements were in unnatural places for an infinite time, it is unclear whether they even had other, natural, places, and there are no longer two principles, or (2) if there *are* two principles, one of the natural, the other of the unnatural, it is not unclear whether they had other, natural, places. 10

The End of the Refutation of the Tenth Argument

The Eleventh Argument of Proclus the Successor

15 The eleventh [argument]:³²⁹ he³³⁰ says that matter in every case³³¹ exists 'for the sake of something',³³² for it is [he says³³³] the recipient of generation, and that 'for the sake of which' matter has its existence is nothing other than generation.

Now, if matter [comes] from nothing (*ek mêdenos*),³³⁴ it would exist 'for the sake of something' by chance and what has come to be has
20 matter by chance. But none of the things [which exist] by chance is necessary; and so we shall be saying that not even the creation had [any] certainty³³⁵ (*to bebaion*).

But if [it is] through (*ek*) some cause [that it is] 'for the sake of something' and the matter for generation, they, [I mean] matter and generation, necessarily exist together; for that [which exists] 'for the sake of something' and that 'for the sake of which' [it exists exist] together, since they exist in relation to one another. So if matter is something everlasting, and, *qua* matter, [exists] 'for the sake of something', generation is also everlasting; for it, for its part, inas-
404,1 much as it *is* generation, must be that 'for the sake of which' [matter exists]. Therefore matter and generation coexist together for all time (*ton aei khronon*), as being [instances of] that 'for the sake of which' and that [which is] 'for the sake of something [else]'. For matter is [the matter] of something, [namely,] of the form upon it. Indeed, particular matter is [only] matter when the form is also [present]. Hence³³⁶ artisans make what is as yet not matter³³⁷ serviceable, and
10 it is to the extent that they progress towards the production of matter that form arrives on the scene. Stones, for instance, are not matter for the form of the house before they have been, say, dressed and fitted together, but [only] when they also receive these [treatments]. Therefore it is at the moment that they truly become matter that form is at once instantaneously present.

15 So if it is also certainly the case that matter plain and simple³³⁸ (*haplôs*) is the matter of all generation and is potentially all things and has need of nothing to be matter in the way that particular [matter] does (for something 'plain and simple' is everywhere and primally of its kind (*toioutos*), having need of nothing else to be what it is), it is also the case that all forms are [present] in it simultane-
20 ously; for since it has need of nothing to be matter, it has need of nothing to possess forms, and so, from the time it exists, it possesses the forms of which it is the matter.

And it is ungenerated and imperishable that it may have no need of other matter,³³⁹ being matter plain and simple. Therefore the forms are in it from everlasting, and order (*kosmos*) too. For it was
25 matter for order and not for disorder and it existed for the sake of order and not for the sake of disorder; after all, even particular matter does not exist for the sake of privation but for the sake of form.

And so from the time that there is matter for a cosmos (*kosmos*) there is also a cosmos.

The Sections of the Refutation of the Eleventh Argument

405,1

1. The opinions of the followers of Pythagoras and Plato and those of the Stoa with regard to matter. Including [a demonstration] that matter is never devoid of forms.

2. The arguments by which they seek to establish that there is one and the same underlying matter for all physical things and that that [matter] is formless and unchanging. 5

3. That by the very same arguments by which it is demonstrated that there is some single common matter for all things it is shown that this is not that much-talked-of incorporeal and formless matter, but that it is body devoid of qualities that is this ultimate (*eskhatos*) substrate, or prime matter. 10

4. Against this,³⁴⁰ a case³⁴¹ [for the view] that body devoid of qualities is not *qua* such unchanging because it [can] become large after being small and small after being large, and its refutation, [namely,] that it does not change *qua* body but in quantity. Including [a demonstration] that it is not the same to say that a thing is large or small as to say that it is three-dimensional or, in a word, body. 15

5. That it is impossible for accidents to be elements of bodies in such a way that composite bodies [are composed] of them and of matter. 20

6. That not every quality (*poiotês*) or quantity (*posotês*) is an accident, but there is a substantial quantity (*poson*) and a substantial quality (*poion*).³⁴² And that the self-subsistent [element] in bodies, or their being *tout court*, is the indefinite three-dimensional, which is the ultimate substrate of all things. 25

7. That nothing prevents the three-dimensional from being substrate, or matter, even should it not be formless. And that no existent can be altogether formless, not even the very incorporeal matter they hypothesise, if that actually (*holôs*) were an existent. And that the three-dimensional is the simplest [level of being]. 406,1 5

8. A number of arguments that the existence of [this] fabulous (*mutheuomenos*) incorporeal and formless matter is an impossibility. And that by the very same arguments by which [the existence of] incorporeal matter is disproved it is shown that the three-dimensional is the first substrate or matter.³⁴³ Including [explanations of] the sense in which the three-dimensional is said to be in itself indefinite and [of] the respect in which it is unchanging and the respect in which it is not unchanging. 10

9. A description of the approach³⁴⁴ [taken] in this present eleventh proof. And the points in the argument (*problêma*)³⁴⁵ by which, should 15

they be conceded,³⁴⁶ [our opponents] do no harm to the truth and those that we have undertaken to refute.

10 A number of arguments that it is impossible for matter – whether one has in mind particular matter or matter plain and simple – if it does in fact come to be, to come to be out of [other] matter.

25 11. That, even if everything that comes to be does need matter in order to come to be, for just that very reason there is every necessity that, if matter does in fact come to be, it should not itself have need of matter in order to come to be.

407,1 12. That, just because the substrate, or matter, remains unchanging during the generation and perishing of particulars, it is not automatically (*êdê*) necessary that it should on that account also be ungenerated and imperishable without qualification (*haplôs*).

5 13. That neither does Plato anywhere say that matter is everlasting and without a beginning nor, if he did say as much, would it be reasonable on that account to also saddle him with the notion that the cosmos is everlasting.

10 14. That Plato clearly held conflicting positions elsewhere too, one case being his saying both that earth is unchanging and that composite bodies are composed of the four elements, for it is impossible for both these [statements] to be true.

15 15. That there is no necessity that the cosmos should be everlasting for Plato on account of matter; on the contrary, on account of the cosmos matter as well must have a beginning.

15 The Refutation of the Eleventh Argument

1. Since the philosopher has here raised the issue of matter for us, and has even tried to establish through [matter] that the cosmos is everlasting, I think it is reasonable, before our examination of the present proof, to digress a little and consider just exactly what the matter that underlies all physical [entities] in common is, something indeed I earlier³⁴⁷ promised to do upon reaching the present chapter.

25 Well then, Plato³⁴⁸ and the most distinguished of the ancients asserted that matter³⁴⁹ is incorporeal and formless. Many also held that it is everlasting, being devoid of all generation and destruction and, in a word, all change. It is with this formless and incorporeal matter, so they say, that quantity initially³⁵⁰ couples and produces the three-dimensional, that is, the so-called ‘qualityless [body]’ or
5 ‘body plain and simple’. [And] it is of this ‘body plain and simple’, [so they say], that the large and small are the first differentia;³⁵¹ for body in itself, being determined only by the three dimensions, is a kind of indeterminate bulk and is [only] given definition by the differentia of the small and the large.

10 It is like the case of³⁵² ‘living creature’.³⁵³ Its nature, being defined

by 'ensouled' and 'sentient', is in itself, by the account proper to [that] nature, [something] other than the differentia 'rational and irrational'. But even so it is impossible for 'living creature' to be observed in existence (*en huparxei*)³⁵⁵ without one of the differentiae which belong (*idios*) to it. This is because the universal genera (I mean those that are in nature (*ta phusika*) and that have [their] being in the many) do not exist (*ouk eisin en hupostasei*)³⁵⁶ on their own but are in every case³⁵⁷ observed in association with this or that (*tis*) species. 'Living creature' for example does not exist on its own, but is in every case either rational or irrational.³⁵⁸ Indeed (*alla*), not even 'irrational living creature' can exist (*en hupostasei einai*) on its own without on every occasion being either 'horse' or 'dog' or one of the other [species of animal];³⁵⁹ and the same argument applies in all [similar cases]. In fact [genera and species] are relatives, because if the genus is eliminated, the species are in every case eliminated along with it, and when the species are eliminated³⁶⁰ the genus too is necessarily eliminated along with them. Well then, just as it is impossible, [as I was saying], for 'living creature' to exist (*en huparxei einai*) without one or other of the differentiae that belong to it, in just the same way the nature of body plain and simple is defined, as I said,³⁶¹ by the three dimensions [and] is in itself [something] other than [its] differentia 'small and large', but it is even so impossible for it to exist (*en hupostasei einai*) without one or other of these differentiae.

Next (*loipon*), quality, supervening in this qualityless body, produces the structure (*phusis*)³⁶² of the elements. When the quality hot and dry supervenes in it, fire comes into existence; when that of hot and wet, air; when that of wet and cold, water; when that of cold and dry, earth. (This is the order that is assumed, hypothetically of course, for the exposition of the nature of things as they [actually] are. In reality (*gar*) it is not reasonable to suppose that the substrate is ever devoid of forms or qualities. Matter, whatever its nature may be, is actually brought into being by God already invested with form. After all, if matter and form are relatives if it is indeed the case that the former is 'for the sake of something', the latter 'for the sake of which', as Proclus himself has stated in the present argument, and [if] relatives imply one another or eliminate one another,³⁶³ then it is not possible for matter to exist apart from forms or forms apart from matter.)

[And] after that (*loipon*), as a consequence (*ek*) of the four elements coming together and combining with one another, the composite bodies come into existence.

They say, then, that the afore-mentioned incorporeal and formless matter is prime matter, or matter plain and simple, that second [comes] the three-dimensional, or body devoid of qualities, which they also describe as a second substrate after matter, and third, and a more immediate [substrate], the four elements. For these last are not matter plain and simple but [only] relatively; for [they are matter

only] in relation to the things that have come into existence from them, since the things composed of them also become matter in relation to [still] other things, as the sperm and the menses become matter for the animal.

410,1 Such, then, are the views of the followers of Pythagoras and Plato.³⁶⁴ And most of those from the Stoa [also] held that the three-dimensional is close to (*pros*) matter.³⁶⁵

5 These, in summary, are the statements of the most reputed [philosophers] concerning matter.

2. That this selfsame thing is a kind of single and common substrate and matter for all physical forms while being unchanging and incorporeal itself they seek to establish by the following arguments:

10 We observe all physical bodies, both the elements and the things composed of them, changing into one another. But it would be impossible for all things to change into one another if nothing in the things that
15 change remained one and the same [and] unchanging and received in turn each of the forms in respect of which change takes place.

I shall make what I am saying clear by means of an example. Let there be a bronze statue of a man and one of a horse, if you like, and of a dog and of an ox, and, in short, of everything else that can be made (*ginesthai*) of bronze. It is clear to everyone I imagine that each
20 of the above can change into all of the others. The bronze of a man could, when remodelled by the artist, change into a bronze horse or dog or anything else, and similarly each of the other [bronzes] could
25 be refashioned into all the rest. On the other hand, a bronze of a man could not ever change into a wooden horse, or into anything else that did not have the same matter, into a house, for example, or a ship or a garment. Why? Because the things I mentioned earlier have a single underlying matter, bronze, while the same matter has not
411,1 been put into the bronze of a man and the house and the ship. The ship could change into a bed or a door or anything else made from pieces of timber and the house into a theatre, say, or anything else
5 created (*ginesthai*) out of stone, because the substrate, or the matter, remains unchanging, being common to all of the things mentioned – in the case of a bed and a boat, for instance, the pieces of timber, and in that of a theatre and a house, the stones. However, the house cannot change into a garment, because the matter of a house and that
10 of a garment are different.

Nothing, then, will be able to change into anything else unless one and the same matter underlies both. So, just as in our present (*entautha*) example of man-made objects those that have the same matter, such as artefacts made of bronze, can all change into one another, because one and the same matter – bronze – underlies them,
15 while the bronze itself remains unchanging with respect to the account that is proper to its nature³⁶⁶ during their transformation (*metabolē*),³⁶⁷ whereas things that do not have the same matter

cannot change into one another, in the same way, presumably, if some single matter which itself remains unchanging did not underlie all natural bodies, it would not be the case that all natural bodies changed³⁶⁸ into one another. 20

Therefore the matter of all natural bodies must be single and common.³⁶⁹ And just as the bronze is of itself without shape and possesses none of the shapes it assumes as a constituent part of its own nature, in just the same way the matter which underlies all natural bodies in common must be other than all the physical forms it is able to receive. And that which is other than all form must be formless. And so by these arguments it is shown that the common matter of all things is also formless. 25 412,1 5

And, as has been stated,³⁷⁰ it must also be unchanging so that the things that change may change into one another around (*peri*)³⁷¹ something which remains the same; for if nothing remained unchanging during the transformation of bodies into one another, since everything that was changing would [then] perish in its entirety into non-being, nothing at all would [actually] change into anything else. 10

These then are the arguments by which they seek to establish that some single and common matter underlies physical bodies and that it is formless and unchanging.

3. But perhaps, starting³⁷² from these very arguments, one could demonstrate that prime matter is neither incorporeal nor formless. [The argument would be as follows]: 15

During the transformation of bodies into one another the three-dimensional is seen to remain unchanging. When water, for example, changes into air it does not change *qua* body, because the three-dimensionality that underlies water remains as such unchanging even when water changes into air. After all, we do not ever observe the three-dimensional coming into existence out of the non-three-dimensional or the non-three-dimensional out of the three-dimensional, because no body has ever changed and become incorporeal nor, conversely, anything that was formerly incorporeal become body.³⁷³ And so the three-dimensional, or body in general, is, *qua* body, unchanging. 20 25

If, then, someone can show that change from the three-dimensional (i.e. from body plain and simple) to the non-three-dimensional (i.e. to non-body plain and simple) ever takes place, let us concede that there is something which underlies even the three-dimensional, around which, while it remains unchanging,³⁷⁴ the change of the three-dimensional (i.e. of body devoid of qualities) into that which is not such³⁷⁵ takes place. 413,1 5

And this [substrate] is obviously incorporeal. For that which underlies something is other than that which it underlies. Bronze [for example] is other than any particular (*poios*) shape. [And] therefore that which underlies the three-dimensional (i.e. body *qua* body) will likewise not be body but incorporeal. 10

But if, on the other hand, nothing has ever changed from [being] body to not being body or become body after (*ek*) not [being] body (for nothing that was not three-dimensional has ever yet become three-dimensional, nor, conversely, [anything] three-dimensional changed to not being three-dimensional, but the three-dimensional, or body in general, *qua* body, remains unchanging during the transformation of the elements into one another), what further argument remains to show that a kind of (*tis*) incorporeal matter underlies the three-dimensional? After all, [it was] from [the fact of] change in bodies endowed with qualities that it was shown that something unchanging which is other than them must underlie them. So, if the three-dimensional (i.e. body devoid of qualities) does not change *qua* body except in so far as it is quantified,³⁷⁶ so that all change in bodies occurs with respect to largeness or smallness, what compelling factor (*anankê*) still remains on the basis of which any one could conclude that something else incorporeal also underlies the three-dimensional and that it is not itself the first substrate of all things and matter as such, as the Stoics too rightly thought?

By 'matter plain and simple' and 'body plain and simple' I do not mean the [kind that is] universal and as it were generated and conceived of (*theôrein*) only in our thought and in reasoning (*logos*) but the kind that has real existence (*to en huparxei*) and has actually (*êdê*) become a part or element of the composite [existent], and yet by its own account is devoid of each of the qualities of which it is by turns receptive. By this 'body plain and simple', then, I mean that which is defined [solely] by the three dimensions, because in itself it is neither hot nor cold, neither heavy nor light, and by the account proper to its own nature does not allow of any such additional determination so as to be called heavy body or hot body. This is how I want 'body plain and simple' to be understood throughout.

Well then, if we see that this kind of body remains unchanging when the elements perish, it seems that it is the first substrate of each physical [entity] and prime matter; for, [just] because each body that is endowed with qualities consists of substrate and form, it is not on that account automatically (*êdê*) necessary that qualityless body, the substrate for bodies endowed with qualities *qua* endowed with qualities, should also be composed of substrate and form; for it is not even the case that each body that is endowed with qualities [consists] of substrate and form *qua* body, but [it does so only] in so far as it is a body of this or that kind and has the qualities hot or cold, heavy or light, as the case may be; for qualityless body underlies all of these [qualities]. So each body that is endowed with qualities is [made up] of the three-dimensional (i.e. qualityless body) as substrate and [some] form, whether that of fire or air or something else. So, just as form does not consist of substrate and form, neither will body plain and simple, the substrate for all the physical forms, be composed of

substrate and form; instead, it is itself a substrate for everything [else] and [perfectly] simple. 10

4. It is plain, I think, from the evidence of the facts themselves³⁷⁷ that body *qua* body undergoes no change or alteration during the transformation of things into one another (i.e. [its] being body is fixed³⁷⁸), for that is to change *qua* body. But since some people try to establish that even body *qua* body (i.e. the three-dimensional as such) changes so as to thereby show, as they suppose, that a kind of (*tis*) incorporeal matter also underlies body, it is I think necessary to set out and examine their arguments. 15 20

They say that, even though the same substrate persists (*menein*) and neither addition nor subtraction has taken place, smaller bodies become larger³⁷⁹ and from being larger contract again to a smaller bulk.³⁸⁰ For example, casks³⁸¹ and skins filled with new wine burst when full unless they can breathe. The new wine turns into vapour and, because the vapour has a greater volume than the body (*ousia*) of the wine that has turned into it, and the space which the wine had occupied before its transformation is unable to hold a greater volume of matter (*sôma*), and the vapour has no exit to the air, the skins or casks are stretched excessively by the great volume (*megethos*) of the vapour and burst. This is the same as happens with sacks and the like when they are overfilled, for it is not simply the vapour that is the cause of the bursting (for inflated skins do not burst when they are full of air), but the change of the wine into a greater volume. 416,1 5 10 15

One may see [this] change of a smaller body to a larger in a yet clearer form, and available to actual observation, both in the case of evaporating liquids (*hudôr*) (when a small amount of a liquid evaporates (*dapanoun*), a considerable amount of vapour is seen to appear), and also in the case of burning logs (even though a very small portion of the substance of the logs changes in combustion, smoke is produced in large quantities and spreads over a wide area). And when we eat, at first there is often no distension (*onkos*) in the region of the stomach, but when the food is gasified, inasmuch as it is changing to a greater bulk and has need of a greater space, it produces dilation in the region of the stomach. And, conversely, bodies also change from a greater bulk to a lesser when lighter things change into heavier ones. A large amount of air, for example, changes when it condenses into a very small volume of water; for just as a little water is seen to change into a large amount of air, so too must a great volume of air, when it is compressed and collapses in upon itself, change into a lesser amount of water. And if it is not because [some] addition occurs that a thing becomes large after being small, nor, conversely, because [some] subtraction takes place that it becomes small after being large, then it would seem that the three-dimensional too comes to be and perishes. And if this is so it must also be the case that incorporeal matter underlies it, because 20 25 417,1 5 10

all things that change change, as has been shown, in some common substrate.

15 These, then, are the things one could say in support of the position that incorporeal matter also underlies the three-dimensional and that the latter is not the prime matter of bodies.

20 But we have already potentially resolved this difficulty too. We said³⁸² [earlier] that the small and the large is the first differentia of body. Well, just as neither the change from heavy to light nor that from hot to cold produces a change to body *qua* body, in the same way [the change] from small to large and that from large to small are not
 25 the generation or perishing of body *qua* body, since not even growth produces body out of non-body, but, while the nature of body *qua* body remains unchanging, the change associated with (*kata*) growth merely effects an addition to [its] quantity. Well, in just the same
 418,1 fashion, even if water when it perishes changes to a greater volume as it becomes air, [while it is the case that] to the extent that air has come into existence from water there is perishing of water and generation of air, to the extent that body has not come into existence from the incorporeal or the incorporeal from body but the account of
 5 body has remained unaffected³⁸³ prior to the perishing of the water and during [its] perishing and after [its] perishing, it is clear to everyone that the body *qua* body has neither perished nor come into existence but has changed only with regard to quantity, having become larger after being small, just as in the case of quality it
 10 becomes hot after being cold and light after being heavy. After all, every change is a departure from something in relation to which it takes place. The white, for instance, if it changes *qua* white, totally leaves off even being white, and an animal, if it changes *qua* animal,
 15 leaves off being an animal, and the same argument applies to everything else; for every change is something which departs from the thing in relation to which it occurs. Therefore, if body *qua* body also changed, it would depart from being body. And so if the change from small to large, or conversely that from large to small, were a change
 20 of body *qua* body, that which becomes large after being small or small after being large would no longer be body. But no change makes the thing that changes body instead of (*ek*) non-body or non-body instead
 25 of body. Therefore, in things which change, the substance of body *qua* body undergoes no change. For if body is defined by being the three-dimensional, and if body *qua* body changed, the three-dimensional *qua* such would change; and so it would no longer remain
 419,1 three-dimensional but would destroy³⁸⁴ either all or some of [its] dimensions. So if the three-dimensional (that is to say, body) remains in the same state during every change, undergoing no alteration *qua*
 5 such,³⁸⁵ it is obviously completely unchanging, and a change of the small and the large³⁸⁶ is a change in the quantity of the body – just indeed as that from hot to cold and that from wet to dry or their

converses is a change in the quality of the body. So, just as a change in these last (i.e. one of quality) does not produce a change in body plain and simple *qua* such, in the same way neither does a change in largeness or smallness³⁸⁷ (i.e. one of quantity) produce a change in body *qua* body; for it only expands or contracts the dimensions of the body and in no way brings about the perishing or generation of body *qua* body.

And besides, the large and small *qua* such is other than the three-dimensional, for that it is not the same thing for a thing to be large or small as to be three-dimensional is clear from the following considerations.

The large and the small are relatives. Nothing is a large or a small thing in itself but [anything] is said to be a large or small thing in comparison with something else. Hence the same thing can be both large and small as compared with different things. You will say that a bean, say, is large when you are comparing it to a grain of mustard but small when you are comparing it to an apple. Indeed, even Mt. Olympus, while large as compared to Hymettus, is small as compared to the whole earth. And the earth itself, as compared to the whole cosmos, is small – indeed almost nothing – if it does in fact have the status (*logos*) of a point or centre in relation to the universe. The three-dimensional *qua* such, on the other hand, is not a relative; for bodies are not three-dimensional by comparison with others but each of them absolutely on its own. So if the small and the large are relatives but nothing three-dimensional *qua* such is a relative, it is not the same thing to be large or small as to be three-dimensional – or, if it *were* the same thing for a thing to be large and to be three-dimensional, nothing that was not large would be three-dimensional, [and], conversely, if it were the same thing to be small and to be three-dimensional, nothing that was not small would be three-dimensional. So if it is possible for something both not to be large and to be three-dimensional, and, likewise, for something not to be small and to be three-dimensional, then the three-dimensional *qua* such is other than the large and the small.

Further, the large and the small is [of] wider [application] than the three-dimensional. Both a line and a surface, for example, are said to be large and small but the one, the surface, is two-dimensional, the other, the line, in one dimension. So if the large and the small is present in both a line and a surface, and if nothing three-dimensional is either a line or a surface, then nothing three-dimensional *qua* such is large or small.

Further, if the large and the small differ from one another (each of them *qua* such), but nothing three-dimensional differs *qua* such from anything [else] three-dimensional *qua* such, then nothing three-dimensional *qua* such is the same thing as the large and the small.

So, if it is not the same for a thing to be large or small and for it to

be three-dimensional, then the change from small to large, or conversely [that] from large to small, does not produce a change in the three-dimensional as such. For something which has become small after being large, or *vice versa*, has remained not a jot more or less three-dimensional or body, both before it changed or after having changed.³⁸⁸ And so body *qua* body remains unchanging during the change of the large and the small; just indeed as in qualitative change (*alloiôsis*) too the thing which changes, as has often been stated, undergoes no change with respect to the account³⁸⁹ of body.

5. But perhaps in reply he³⁹⁰ might raise this further difficulty.

The ten categories are separate from one another and quantity is different from substance and the three-dimensional in itself belongs to quantity and body is substance.³⁹¹ Consequently the three-dimensional in itself will not be body, since it is not even substance but quantity. So if body *qua* body is substance, and if all body is three-dimensional and is thereby invested with form, then it is necessary that there should be something underlying the three-dimensional in which it comes to be and produces the nature of body.³⁹² Therefore the nature of body will consist of a substrate, [namely,] matter, and the three-dimensional, which informs it, and thus it is the combination of the two that is the substance 'body'. Therefore body is not simple and the foundation of all things but a kind of (*tis*) incorporeal matter underlies even it.

But if the three-dimensional, on account of its being quantity, is an accident, then the heat and dryness in fire, being qualities, will also be accidents, and so too the coldness in water and the heaviness and lightness in bodies and the like. So the result will be, at least on the basis of this argument, that all corporeal substance consists of matter and accidents. And so matter and the accidents will be the elements of corporeal substance. And since elements are prior in nature to the things composed of them and are often also prior in time – for instance, the things of which our body is composed are prior both in time and nature to our body and for that reason when [its] elements are destroyed our body is necessarily destroyed as well, but when our body does not exist there is no necessity that [its] elements, [namely,] fire, water, air and earth, should not exist – therefore the accidents too will be prior in nature to corporeal substance. And so if the accidents are destroyed, the substance too will be destroyed (for when a thing's components are destroyed it too is of necessity destroyed), but when the substance is destroyed it would be possible for its components, i.e. its accidents, to [still] exist, which is impossible. Indeed, on the basis of the actual nature of things, the opposite is agreed by all [to be the case]: when the substance is destroyed it destroys its accidents as well, since they cannot, being its accidents, exist apart from it, whereas, when the accidents are destroyed, they do not destroy the substance, since an accident is that which comes

and goes without the destruction of the substrate. But the elements of a thing, in short, its essential components, do not come and go without the destruction of that [thing], for it consists of them. Therefore the accidents are not elements of corporeal substance and nor are [corporeal substances] in any sense (*holôs*) made up of them. And if accidents are not elements of body, then nor is body composed of them and matter.

That it is impossible for body to consist of accidents and matter, has, I think, been adequately demonstrated by what has been said. So what do we say in response to the difficulty [raised by our opponents]? That, just as not every quality is an accident but there is also a substantial quality³⁹³ – we say, for instance, that differentiae such as ‘rational’ and ‘two-footed’ are predicated of species as well as individuals in [response to the question] ‘what kind of thing is it?’. It is for this reason that Aristotle has stated³⁹⁴ in the *Categories* that, because the species and the genera participate in the differentiae,³⁹⁵ they define quality in the sphere of (*peri*) substance. The heat in fire, for example, which is a kind of quality, is not an accident of fire, but [one of] its substantial and constitutive differentiae, and nor are the heaviness in earth, or the wetness in air and water, or the sweetness in honey, or the whiteness in white-lead or snow, or the spherical shape in the heaven [mere accidents].³⁹⁶ [If they were,] they would come and go without the destruction of [their] substrates, which is impossible; for it is not possible to conceive, even notionally, of fire without heat³⁹⁷ or of snow without whiteness or of the heaven without spherical shape, or of any of the other things mentioned [without their substantial qualities]³⁹⁸ – just, then, as there is a substantial quality which is not classified under quality but under substance as a substantial differentia, so too, one supposes, is there a substantial quantity, and this is first and foremost (*malista*) the three-dimensional; for this alone of all the things that are observed in bodies is the self-substantiality, or substance *tout court*, of body,³⁹⁹ which is a kind of three-dimensional bulk, indeterminate with respect to largeness or smallness.

6. Of this three-dimensional, the first differentia is, as has been stated,⁴⁰⁰ the large and small; for it is with the expansion and contraction of the three dimensions to one degree or another that the large and small supervenes in the three-dimensional and brings [its] indeterminate bulk to definition and limit. But contraction and dilation produce neither generation nor destruction of body *qua* body, that is, of the aforesaid three-dimensional; for the large and the small come and go in bodies, that is [to say], bodies expand and contract, without the body *qua* body suffering any [change] with respect to its own account.⁴⁰¹ And so the substance *tout court* of body is nothing other than the undetermined three-dimensional, which, defined by the differentia of the small and the large, and receiving the specific

differentiae of the corporeal substances, produces the particular substances of bodies – I mean of water and fire, sun and moon, and all the rest.

Once this has been pointed out, it is clear that the three-dimensional is not an accidental quantity. [If it were,] it would come and go without destruction of the body, but in actual fact (*nun*) it is impossible to even conceive of body apart from the three-dimensional. Therefore it is the substance of body. So if the three-dimensional is the substance of body plain and simple, and [if] it alone, as has been shown, remains unchanging during change in bodies, then there is no argument that can show that incorporeal matter must underlie it. And so it is this that is the first substrate for all physical forms, [that] from which, with the subsequent addition of the substantial qualities, the qualified bodies in [actual] existence (*en huparxei*), fire, water and the rest, come into being. For just as the [differentiae] ‘irrational’ or ‘mortal’ do not exist on their own but it is [only] coupled with ‘living creature’, that is, with ‘ensouled, sentient [creature]’, that they achieve existence – by ‘living creature’ I do not mean the genus but the one that actually exists⁴⁰² (*en huparxei êdê*) and that becomes part of the composite [organism] – just so do the heat or lightness in fire and everything else that makes up the substance of fire – and similarly the wetness and coldness that are constitutive of water and, [in the case] of earth and air, the characteristics which are differentiae of *their* body – also take [their] existence in body plain and simple, [or] the three-dimensional.

7. But perhaps someone will say to this that prime matter must be formless but the three-dimensional is not formless if it is itself the form of body plain and simple. The result will then be that the substrate for physical bodies⁴⁰³ will not be formless but form will underlie forms. So if, they say, matter and the first substrate must be formless, the three-dimensional will not be [that] matter.

In resolution of this difficulty we for our part would reply in the first place⁴⁰⁴ that [to say that] matter must be formless is assumption⁴⁰⁵ (*aitêma*) and not proof. If it were universally impossible for something that is invested with form to underlie another form and be its matter, it would be necessary to concede that the common matter for all forms must be absolutely formless. But in actual fact all generation, whether natural or artificial, uses not formless but informed matter for its characteristic (*oikeios*) products. It is, for example, pieces of wood that have [already] been invested with form that become the matter⁴⁰⁶ for works of carpentry, and the same goes for the bronze [that provides the matter for the works] of the metal-worker. And, what is more, in the case of natural things, the non-homogeneous parts⁴⁰⁷ of an animal, or the body that is composed of them, which is [certainly] invested with form, are agreed to be the matter for the vital functions of the soul, and the elements too are

matter for the things composed of them, and their analogues, the humours,⁴⁰⁸ are matter for our body. And the three-dimensional itself, or body devoid of qualities, they themselves concede to be, if not prime matter, at any rate a second substrate and proximate matter for all physical forms; for the matter of any given things (*tinôn*) must not have any of the forms of those things whose matter it is – the bronze, for example, possesses none of the forms it takes on by the account of its own being, and the humours, which are the matter for flesh and sinews and bones and the rest of the parts of an animal, do not themselves have any of these forms⁴⁰⁹ as a constituent of their own being. And in that respect at least, *all* matter could be called formless, possessing none of the forms it receives, yet it is certainly not also necessary for it to be entirely devoid of form if in fact all proximate matter, all the way to the three-dimensional itself, is invested with form. And so the three-dimensional too, in so far as it is other (*heteros*) than all the forms it underlies, will to that extent (*tautêi*) be formless and the matter of all things, and it is certainly not the case that, just because it is [itself] a type of (*tis*) form, it is therefore automatically (*êdê*) necessary that it not be prime matter.

In fact, it is not even possible for anything that exists to be entirely formless. If such a thing exists at all, there must certainly be some natural account of its existence, even if it is inexpressible for us. Should it have no account in accordance with which it exists and has its being, it would not even be among the things that exist, because everything that exists has some natural account in accordance with which it exists. And if this is so, then nothing that exists is formless. For the natural account of each thing in accordance with which it exists, is the form and being of each thing, and, conversely, the form which is constitutive of the being of each thing is a certain natural account in accordance with which it has its being.⁴¹⁰ Therefore matter too, if it is not an empty word but is a physical thing with real existence, will clearly have an account in accordance with which it exists. But the account of the existence of each thing is its form and being. Therefore the account of matter as well, in accordance with which it exists, is its form and being. Therefore it is not possible for matter to be entirely formless, because this is the same as its not existing at all, as we have stated.⁴¹¹ For a thing that has no account of its being is certainly, one imagines, a thing that does not even exist.

And so its being invested with form and not being formless will not prevent the three-dimensional from being prime matter. In fact the argument has shown the exact opposite, that not one among all the things there are can be entirely⁴¹² formless.

But when we say that the three-dimensional is invested with form, we do not mean that it is composite but that it is the most simple [thing there is]. It does not consist of substrate and form but is itself a kind of simple bulk, having its being in that very [circumstance],

10 and is a substrate for everything else. In fact being three-dimensional does not even convey any notion of composition for us. If bodies consisted of planes, as Plato seems to say,⁴¹³ or simply of lines, the three-dimensional would not be simple, but if this is impossible and
 15 it has been shown that nothing else underlies the three-dimensional but it is itself the foundation for all things, then it is clear that it is the simplest [of things] and is the matter of all things [and] has not acquired composition from any [source].

If this is so, and if the three-dimensional is self-subsistent, and if
 20 no change can be observed in it, then there is no argument that can establish that a kind of (*tis*) incorporeal matter underlies physical bodies, but physical things must be analysed down to (*eis*) whatever is the last level [possible],⁴¹⁴ whether one prefers to call⁴¹⁵ it the first
 25 substrate or matter; for let us not squabble over names.

8. But not only do I say that the hypothesis of incorporeal matter is not proved by its proponents, since the arguments by which it
 429,1 appeared to be [proved] have been refuted, but that many absurd and impossible consequences at once follow upon this hypothesis by which it is shown to be false. For if change to things took place around (*peri*)⁴¹⁶ an incorporeal matter which was potentially all things and
 5 on that account of a nature to change into every form while remaining one and the same, then clearly the first change, that of the large and the small, would also take place around (*peri*) it, as indeed seemed to be the case to Plato and the others who hypothesised matter.⁴¹⁷ After all, if it turns out that the change of the large and the
 10 small takes place around (*peri*) the three-dimensional, it must remain unchanging and itself be this first substrate, or matter, into which physical things are last analysed.⁴¹⁸ So, if they do not want it
 15 to be prime matter but [want] incorporeal matter to underlie even it, there is every necessity that the very first change, [that] involving the large and the small, should also occur around (*peri*) that.⁴¹⁹

Well then, is it equally possible (*adiaphoros*)⁴²⁰ for the incorporeal matter underlying any body whatsoever to change to any magnitude
 20 of whatever size, small or larger, so that any given matter can assume any volume (*onkos*) whatsoever, or is it not equally possible? If it is equally possible, the incorporeal matter underlying the water contained in a ladle would be able to change into the whole expanse (*onkos*) of the air, and, similarly, the matter underlying all the air
 25 would be able to turn into a ladleful of water.⁴²¹ For if changing into any magnitude whatsoever is equally possible for it, on account of its being incorporeal and potentially all things, why does the matter that underlies the water contained in a ladle change into, say, a litre
 430,1 of air rather than into a hundred times that or simply into the whole expanse of the air? And if it is not equally possible for any given incorporeal matter to take on any given magnitude (since even the evidence [of the facts themselves] suggests that this is not so, because

the transformation of bodies into one another is into set magnitudes 5
 even though one and the same matter, I mean prime matter, under-
 lies each of them),⁴²² their hypotheses (*axiômata*) concerning matter
 will be demolished, because we [shall] necessarily assume different
 differentiae⁴²³ in different matter; for unless different matter has 10
 been occupied by different differentiae, why can't any given matter
 take on any given magnitude? For just as it can receive any form into
 itself owing to its not being occupied in advance by some form that is
 engendered along with it but being (so he claims) by its own account
 a thing with no form, so too is it necessarily the case, one assumes, that 15
 since by its own account it not occupied by any magnitude either but,
 being incorporeal and potentially all things, is without magnitude, it
 would be able, [while remaining] the same, to change into every magni-
 tude. So, [if this is so,] let the incorporeal matter underlying the water
 contained in a ladle change into, say, ten thousand ladlefuls, or even into 20
 the whole expanse of the air. But this is clearly impossible. Although a
 little water changes into more air, it does not change into just any
 quantity [of air] without limitation, but the dilation or rarefaction of a
 given (*hekastos*) quantity (*megethos*) [only] extends to a certain defined
 volume (*onkos*). If, then, if it were incorporeal matter without magni- 25
 tude and potentially all things, and if the change of the large and the
 small occurred around (*peri*) it, it would be able change into any
 magnitude, but it does not so change, then it is neither incorporeal nor
 without magnitude; for it is certainly not a line or a plane. 431,1

And not only don't we see all matter changing into every magni-
 tude but not even into every form. The matter underlying a fig seed,
 for instance, could never, while remaining the same, take into itself 5
 human form or that of an elephant. After all, it has been shown in the
 first book of the physics course⁴²⁴ that not just any magnitude is
 receptive of just any form but that the magnitude receptive of each
 form has an upper and lower limit.⁴²⁵ There cannot, for example, be 10
 a human being the size of, say, a finger or one who reaches up to the
 moon in height. And this is not only true in the case of the non-homo-
 geneous animals and plants but also in the case of homogeneous
 things (I mean water and fire and air and earth and, among compos- 15
 ite things, flesh and blood and vein-tissue (*phleps*) and all the rest⁴²⁶),
 since neither the form of flesh nor that of water or of any of the rest
 could exist in just any size, for instance in that of a fig seed. For it is
 not the case that forms can be divided *ad infinitum* while preserving 20
 their own nature (*ousia*) in the way that a magnitude is divisible *ad*
infinitum, but when division passes beyond the magnitude pre-
 scribed for a form by nature the form immediately ceases to exist. For
 example, if, employing division, you continually split up water, it will 25
 have turned into air by the time the division, passing (*para*) nature's
 prescribed limit, goes beyond the nature (*ousia*) of the water, and the
 same goes for everything else.

432,1 And yet, if the matter underlying the fig seed were incorporeal and without magnitude and potentially all things, what, when the form of the fig seed perished, would prevent flesh, say, or a human being, or anything else at all, from emerging from it,⁴²⁷ with [the fig seed] 5 at once changing to the [new] form and to the size appropriate to [that] form without anything else being added?

Well (*gar*), even though a fig tree is produced from a fig seed, it is with the prior addition of bulk (*megethos*) and of matter from the [matter] underlying that added bulk,⁴²⁸ and bulk and matter are 10 added to the fig seed both from the water that moistens it and from the soil that surrounds and nourishes it. [And], similarly, even though a human being is produced from a tiny seed, nature provides the menses and by its addition nourishes the foetus and brings it to 15 its natural dimensions (*megethos*) [and in this way] the prime matter which underlies the menses is added to the matter of the seed that was originally sown. Accordingly, since the incorporeal matter of the fig seed or that of the sperm could not ever, while remaining the same, receive into itself the form of the fig tree or of the human being 20 (in the way that the water contained in a ladle, say, perishes [and], without [further] addition, becomes air – or bread flesh or wine blood⁴²⁹), it is clear that nor can *just any* incorporeal matter take on just any form, since just any [matter] does not even change to just any bulk (*megethos*).

25 So if, in the event that the prime matter underlying each body remained incorporeal and without magnitude, it would be possible for the matter underlying any given magnitude to receive into itself any given magnitude and any given form on account of its being 433,1 incorporeal and entirely formless and potentially all things but we do not see this happening, then it is false that incorporeal and formless matter underlies things.

In the case of the three-dimensional, on the other hand, if this is 5 indeed, as we have previously demonstrated,⁴³⁰ matter and the first substrate of physical forms, there is no longer the necessity for just anything – whether magnitude (*megethos*) or form – to change into just anything. Magnitude is indeed naturally disposed to contract 10 and expand, but the contraction and expansion of each thing must be within limits (*hōrismenos*), for the change that occurs is of magnitude into magnitude, not of [something] incorporeal into a magnitude. Therefore, if there are two volumes (*megethos*) of, let us say, water, one half, the other double, and if they are both rarefied and change 15 into air, the smaller one necessarily changes into a smaller volume of air, the greater into a greater. And whatever quantitative (*kata megethos*) ratio the volumes of water which have turned to air have to one another, that must be the ratio the volumes of air produced from them have [to one another].

20 And nor, with good reason, will any given magnitude suffice for

any given form, because it has been determined by nature in what magnitude each form exists,⁴³¹ and because the first substrate is the three-dimensional and each thing that exists is pre-invested with some determined amount (*megethos*) of the three-dimensional. For even though the three-dimensional is indeterminate by its own account, it is nevertheless indeterminate only notionally and in theory and not as it exists and in actuality – just as living creature plain and simple is by its own account a different thing from rationality and irrationality yet does not exist apart from one or the other of these, since every living creature in [actual] existence is either rational or irrational.⁴³² 25 434,1

But it is not insofar as the three-dimensional is indeterminate or devoid of qualities that I say that it is unchanging, but simply insofar as it is three-dimensional bulk. It is this latter alone that we observe remaining unchanged (*ametablêtos*) during the generation and destruction of bodies, whereas *qua* indeterminate and qualityless [the three-dimensional] is not unchanging, since it changes from small to large, and, conversely, from large to small, and varies all of its qualities. 5

And, further, I describe the three-dimensional as indeterminate not on the basis that it can change into any magnitude one can conceive of (after all, the magnitude of the cosmos as a whole is determined and it is impossible for *anything* in nature to be greater than it is), but simply because it is its nature, [while remaining] one and the same, to become, by expanding or contracting, either larger or smaller. 10 15

So the contraction and expansion of the three-dimensional is limited both at the upper and at the lower end of the scale.⁴³³ For even if magnitude is potentially divisible *ad infinitum* it is not on that account automatically (*êdê*) the case that it can also contract *ad infinitum*, since when, by means of condensation, it has contracted to [its] densest [state], that is, earth, contraction at once (*loipon*) comes to a halt. For should someone claim that the same thing⁴³⁴ could contract *ad infinitum*, then, one imagines, the whole earth would be able, by condensing more and more, to contract to the size (*onkos*) of a grain of millet. But in actual fact that is impossible. If it were able to, it would [already] have [so] contracted. 20 25

And yet it [sc. the three-dimensional] can, as having magnitude, be potentially divided *ad infinitum*. But it seems that contraction or condensation is one thing and division another. And so magnitudes are potentially divided *ad infinitum* but do not contract *ad infinitum* – just as they do not expand *ad infinitum*. Indeed the evidence of the facts themselves⁴³⁵ prompts us to say as much. After all, one who discourses on physical things should not, I believe, of himself⁴³⁶ construct accounts that are out of tune with the facts but apply to the appearances the accounts of them that are accordant and befitting. 5 435,1

Those then who hypothesise that matter is incorporeal and without parts and entirely formless and potentially all things will not be

10 able to give an explanation of why the matter underlying a piece of a
 given size of, say, bread changes into a quantity (*megethos*) of flesh
 of a given size and no greater (as does the matter underlying the
 water contained in a ladle into a given amount of air), or of why it can
 15 receive the form of flesh but not also that of a horse, say, or of an
 elephant without the addition [of further matter]. After all, why
 should something incorporeal and without parts and potentially all
 things, if it is of a nature to be corporealised at all, have need of the
 addition of bulk (*megethos*) from an external source (*exôthen*) to
 change to a given size (*megethos*) or a given form?

Those on the other hand who hypothesise that the three-dimen-
 20 sional is prime matter and that it is clearly not formless or without
 parts (for it is itself the form of body plain and simple and the first
 magnitude) will not be at a loss as to the reasons why just any
 magnitude or form does not change into just any [other] without [the]
 addition [of further matter]. For, given that the three-dimensional is
 25 neither without magnitude nor without parts but is partible, the
 whole is clearly greater than its own part; and if this is so, and if the
 contraction and expansion of bodies is not into indefinite but into
 436,1 defined magnitudes, as has been shown,⁴³⁷ then there is every neces-
 sity that when the larger part of the three-dimensional expands it
 should change into a greater magnitude than the smaller does. And
 5 since each form exists in some defined magnitude, as is shown⁴³⁸ in
 the *Physics*, it is also necessary that a given magnitude should not
 change into just any form, since it does not even change into just any
 magnitude without [the] addition [of further matter].

If, then, in the event that the three-dimensional is substrate and
 10 matter, it is reasonable that the expansion and contraction of bodies
 should not be into just any magnitude, but in the event that matter
 is incorporeal and formless, it is possible for just anything to change
 into a magnitude of any size whatsoever, but this [last] is false and
 15 impossible, then the contraction and expansion of magnitude does
 not take place around (*peri*)⁴³⁹ some incorporeal and formless matter.
 And so it is false that incorporeal matter underlies things.

Also, if matter is incorporeal and without magnitude and there is
 one and the same matter for all things and not a plurality of matters,
 and if physical bodies are separate from one another – water, for
 20 example, from fire, or a human being from [another] human being⁴⁴⁰
 or a horse, and, in short, every body with [corporeal] existence (*en
 huparxei*) from all the rest – how is an incorporeal and dimensionless
 and single matter divided into differing and individual [bodies]? That
 25 which is incorporeal and dimensionless is, after all, of necessity
 without parts. And nor is it possible for what occurs in the case of,
 437,1 say, a quality to occur in the case of matter. Whiteness, and every
 quality, is likewise incorporeal. But since a quality cannot exist on
 its own but has its being in some underlying magnitude, it must be

divided along with the magnitude which has received it. Matter, on the other hand, does not have its being in a magnitude or exist in anything else at all. Indeed it has been shown that they hypothesise that it is, on the contrary, the receptacle⁴⁴¹ and the foundation for everything [else]. So how can what is incorporeal and without parts be divided? 5

And what is the mode of the division? After all, things that are divided are divided either as genus into species, as living creature is divided into horse and human being; or as species into individuals, as human being is into Socrates and Plato (if one thinks it right to call this too division); or as whole into parts, as Socrates is into hands and feet and head and his other parts, or a ten-foot piece of wood into ten one-foot pieces of wood; or as an homonymous word into its various senses, as the word 'dog' is into the astral, the terrestrial and the marine.⁴⁴² 10 15

Well, matter cannot be divided as genus into species. The genera are divided into species by specific differentiae (*diaphora*). But according to those who have hypothesised it matter is altogether formless, and so matter will not even have [any] constitutive or divisive differentia, and on that account will not be divided as genus into species either.⁴⁴³ 20

And nor [is it divided] as species into individuals. The individuals which are referred to the same species are also divided from one another by differences (*diaphora*) of one kind or another. For example, human being differs from human being and horse from horse. It is certainly impossible for two individuals to be the same in every respect and to be absolutely without differentiation. So, if matter too is divided into individuals, the individuals brought under the same matter will certainly differ from one another by differences of one kind or another. 25 30

And, besides, it is impossible for number or plurality to exist at all without difference. So, if numerically different incorporeal matter underlies different [things], then, since enmattered things are more than one (*pleiôn*) and separate from one another, incorporeal matters are numerically more than one. For one incorporeal matter underlies Socrates, another Plato or this piece of wood or this horse. And if incorporeal matters are more than one in number, then they are not without differentiation. So how can matter be any longer formless when its parts differ from one another by differences of one kind or another? 35 438,1 5

And again, individuals are *qua* such indivisible (*adiairetos*), since Socrates if divided is no longer Socrates. But matter when divided is still matter; for when a piece of wood is divided, the incorporeal matter that underlies it is divided along with it but the [matter] in each piece nevertheless remains matter. 10

Therefore nor is matter divided as species into individuals. 15

But nor will it be divided as an homonymous word into its different senses, as in the case of the marine⁴⁴⁴ and the terrestrial mouse.

Matter is not even an homonymous word.⁴⁴⁵ And if matter *were* an homonymous word, in that case it would once again not be formless, since each part of it would have some sense of its own and its own nature. That is the way with all homonymous things. ‘Dog’, for instance, is an homonymous word, but it means one thing in the case of the terrestrial dog, another in the case of the marine dog and another in the case of the astral dog.⁴⁴⁶ So all homonymous things differ from one another by specific differentiae. And therefore, even if matter were divided as an homonymous word into its different senses, there would be every necessity that its divisions (*tmêma*) should differ from one another by formative differentiae, and so matter would no longer be formless. Therefore nor is it divided as an homonymous word into its different senses.

What remains, then, is that it be divided as a whole into parts. But if (1) it is divided into non-homogeneous [parts], both it and each of its parts must be invested with form, since both a whole, such as a human being or the body of a human being, and each of its parts, [such as] the head, the foot and the rest, must be invested with form.⁴⁴⁷ And if (2) it is divided into homogeneous parts, how, again,⁴⁴⁸ can what is incorporeal and without parts be divided?

Besides, division of a whole into parts is, whether the whole be homogeneous or non-homogeneous, the division of a body and a magnitude, since that which is incorporeal and without magnitude is without parts and so it will not even have whole and part. So, if matter is to have whole and part, it must be a magnitude and a body, not without magnitude and incorporeal. And because of this it will not be formless either; for magnitude or body is not formless.

And here is something even more paradoxical. Not only will it turn out that those who hold that matter is incorporeal and formless are making that which is without parts partible, but that they are also saying that the being without parts becomes the cause of division for things that are without parts; for, while each and every form is incorporeal and without parts by its own account, when it comes to be in matter, or the substrate, it is, as we recently stated⁴⁴⁹ in connection with whiteness, extended and partitioned along with it; and so matter becomes a cause of partition even for the partless forms. And they are prepared to accept this!⁴⁵⁰

Well, how, if matter is without parts, is it possible that it should both be divided into parts itself and become the cause of partition for the partless forms? And if it is because something happens to it that the partless becomes partible and the forms, despite being without parts by their own account, become partible when they come to be in matter, and [if] matter is the cause of this happening, matter would obviously be the *efficient* cause of this happening – of the division I mean; and so matter is not formless; for that which acts acts by the agency of some power or form.

So from this too it is clear that the first substrate of all things, or matter – that which, being partible by nature, becomes the cause of partition and extension for the forms⁴⁵¹ that subsist in it – is three-dimensional. Hence too the forms are divided (*temnesthai*) into individuals – not being partitioned in their own right but being divided along with a substrate which is partible; for in itself something incorporeal is by nature without parts, but since the substrate (i.e. the three-dimensional)⁴⁵² in which they subsist is partible and the whole allows of division (*tomê*) into homogeneous parts, it comes about that the forms which are ensconced in it, inasmuch as they have been extended along with it because they have come to be in it [and] it is extended, are of necessity divided along with it too.

And if someone should say that it is after first being quantified and made corporeal that matter goes on to become partible, we shall then too not a whit less raise the problem as to whether incorporeal matter itself has changed [its nature], left off being incorporeal and suddenly (*autokhrêma*) become body and magnitude, or whether, while remaining unchanging and incorporeal, it has taken on the form of body, in the way that magnitude, after taking on the form of, say, flesh, nonetheless remains unchanging and just the same *qua* magnitude, and flesh which has become white or black is neither more nor less flesh, changing not one jot *qua* flesh as a result of (*ek*) the whiteness or the blackness. If, on the one hand, [we shall say,] the matter has remained incorporeal even after receiving the form of body, there still remains the difficulty as to how what is incorporeal and without parts is divided into parts and how, being without parts and incorporeal [itself], it becomes the cause of partition for things that are without parts. And if, on the other hand, it has left off being incorporeal and itself become body and magnitude, it will no longer be unchanging, and so not ungenerated and imperishable either.

And besides,⁴⁵³ if, being incorporeal, [matter] changed and became body, there is every necessity that either (1) it was at one time actually incorporeal and then became body or that (2) it never became actually incorporeal.

Well, if (1) it was at one time actually incorporeal then changed and became body, in the first place that body could also become incorporeal again, and secondly (*eita*) in so far as it did not remain incorporeal it perished. And if the incorporeal perished, it had also necessarily come to be, since nothing perishable is ungenerated. And if this is so, there is every necessity that there should, in line with what was shown earlier, be something else underlying matter around (*peri*)⁴⁵⁴ which that which is at one time incorporeal and at another time body changes [from one to the other]. And this will certainly be neither body nor incorporeal if it is to underlie both body and the incorporeal. But there can be nothing between body and the incorporeal, since there is [nothing] between the members of a contradictory

25 pair (*antiphrasis*). After all, the incorporeal is certainly not also
 body,⁴⁵⁵ and it is impossible for one and the same thing to be neither
 body nor not-body. These are a contradictory pair, and nothing,
 442,1 whether existent or non-existent, will [ever] be able to boast that it
 has eluded a contradiction (*antiphrasis*).⁴⁵⁶ And so it is impossible for
 something else to underlie incorporeal matter. Indeed, not even the
 Hellenes believe this. Therefore it is impossible for matter, having
 been at one time actually incorporeal, to change from some point in
 time and become body.

5 And if (2) matter never has been actually incorporeal, it has been
 potentially incorporeal through infinite time, and if it is potentially
 incorporeal, it is actually body through infinite time, since if the
 10 potentially incorporeal is not actually body, it will be neither incor-
 poreal nor body and this was just now⁴⁵⁷ shown to be impossible if to
 be body and not to be body are a pair of contradictory statements
 (*antiphrasis*) and a pair of contradictory statements cannot be true at
 the same time. And if matter is actually body through infinite time,
 15 if on the one hand⁴⁵⁸ body *qua* body is unchanging, they will be unable
 to show whether a potentially incorporeal entity (*on*), matter, under-
 lies physical bodies at all (*holós*);⁴⁵⁹ for it was shown at the outset of
 the present argument⁴⁶⁰ that if qualityless matter is unchanging,
 20 that is, if it neither comes to be nor perishes, *it* is necessarily the
 ultimate substrate for physical things, or prime matter. And if, on
 the other hand, they will claim that body itself *qua* body changes,
 then it is necessarily the case that matter is unchanging neither (1)
 as being incorporeal (if it has not in fact remained incorporeal in
 accordance with the account proper to its nature),⁴⁶¹ nor (2) as having
 25 become corporeal (if in fact body *qua* body also changes).⁴⁶²

And so there is no manner in which matter is, or will be, unchang-
 ing, since neither what it is by nature (i.e. incorporeal) has remained
 443,1 unchanging, nor what it has become (i.e. body), if that too changes.
 But if, as has often been stated, it is impossible for the first substrate
 to change, then nor is it possible for matter to be potentially incorpo-
 5 real through infinite time; and it has been shown that it is not
 actually so either. And so it is not possible for matter to be incorpo-
 real in any way at all (*holós*).

Also, if the prime matter of bodies is incorporeal and all the forms
 are incorporeal (this last is agreed to be true by absolutely everyone),
 how has the combination of two incorporeal and partless entities
 10 produced the magnitude and body [which results] from both [to-
 gether]? And if *countless* partless entities, such as points, do not
 make a magnitude when put together, how is it that one particular
 (*tis*) combination of *two* partless things (I mean matter and form) has
 become magnitude and body?

15 And if they will say [to this] that matter, even though it is
 incorporeal, is potentially body, if, on the one hand,⁴⁶³ it is always

potentially body, it will never, one supposes, be actually body but always actually incorporeal. After all, a thing which is potentially something, as long as it is only potentially [that thing], cannot be it actually. Water, for example, as long as it is only potentially hot, is not actually hot. So if matter is always potentially body it will always be actually incorporeal. So the difficulty remains. And how does the addition of an incorporeal to an incorporeal produce magnitude and body? 20

And besides, if [matter] is always potentially body and never actually becomes body, it will have the potential to no good purpose, since it will never advance to actualisation. But nothing everlasting exists only potentially through infinite time, as Aristotle too holds.⁴⁶⁴ Among things which come to be and perish, a thing may exist potentially which does not advance to actualisation because [its] perishing pre-empts the perfection and actualisation of [its] potential. For example, although a human being is capable of acquiring all knowledge, he certainly does not do so, because death (*phthora*) pre-empts actualisation; and a piece of timber, although it is potentially a seat or a ship, does not in every case also actually become one. But in the case of everlasting things it is, says⁴⁶⁵ Aristotle, impossible for something to exist only potentially through infinite time, for it will possess the potential to no good purpose if it never advances to actualisation. Therefore matter cannot be potentially body through infinite time. 25 444,1 5 10

And if, on the other hand, while being potentially body, it has either at some time become actual body or is always actual body, we shall repeat the same [arguments].⁴⁶⁶ If body *qua* body is unchanging, they will have no proof that any incorporeal matter underlies bodies at all. And if body changes too, matter is on no basis unchanging: neither as having been [formerly] incorporeal nor as having become body. And if [matter] is not unchanging, there will be something else underlying it too and we shall [have to] conceive of matter of matter and we shall raise the same difficulties with regard to it and the absurdity will mount *ad infinitum*. But it is neither possible for the first substrate of physical things to change and to depart from what it is nor for something else to underlie it; for it would no longer be a first substrate. 15 20

So it is clear from this that matter cannot be potential body. And it has now been shown that it is not possible for it to be incorporeal, whether potentially or actually; and moreover that it cannot be formless either, because it is in no way possible for anything that exists to be formless, for we have shown⁴⁶⁷ that [for a thing] to have⁴⁶⁸ no account of [its] being is the same as [its] not existing at all. (The account of being of each thing is the form or nature of each thing. For example, 'mortal rational living creature' is the account of being and form of 'human being'.) 25 445,1

5 From all of this then it has become clear that prime matter can be neither absolutely formless nor incorporeal. And so the hypothesis regarding (*peri*) an incorporeal and formless matter has been shown to be a baseless (*pseudês*) fiction and unproven assumption⁴⁶⁹ (10 *aitêma*), [and would be so] even if ten thousand Platos and the rest of the roll-call of the ancients had advanced [this] view regarding (*peri*) it.⁴⁷⁰ Indeed, we shall decline to believe anything that lacks rational proof: 'if you don't hear yourself saying [something]', says Plato, 'you should never believe someone else when they say [it]'.⁴⁷¹

15 So let our arguments in refutation of [their] formless, and in reality entirely non-existent, matter come to an end here, since the arguments in relation to it have [now] been shown to be in reality spurious and without foundation.

And if their hypothesis about matter has itself been shown to be (20 false and without foundation, then the things which follow from this false premise are, since the premise has been refuted, refuted along with it, and on that account it would perhaps be superfluous to say anything at all against the present proof. But, be that as it may, let us grant the hypothesis of (*peri*) matter – whether one wants it to be (25 body devoid of qualities or incorporeal – [and] turn the discussion to the scrutiny of the present eleventh proof. [The argument] goes, to put it briefly, as follows:

9. Matter, he says, since it has existence not by chance but from (446,1 some cause, exists for the sake of something [else], and this is what it is for it to exist. In fact it exists for the sake of generation. And therefore it is also the case that generation is that for the sake of which [it exists]. The 'for the sake of something' and the 'for the sake of which' are relatives, and relatives have existence or non-existence (5 together. Therefore from the time there is matter there is also generation. For matter is the matter of a form and form is the form of matter. And so as soon as there is matter there is at once generation too and the forms exist in it [sc. in matter].⁴⁷² After all, matter (10 does not exist for the sake of disorder (*akosmia*) and the privation of forms but for the sake of order (*kosmos*) and the production of form. So if matter is, like generation too, of necessity everlasting, so is the production of form. And so the cosmos too is everlasting.

And that matter is everlasting is clear from the following. If it (15 comes to be and perishes, he says, it will have need of other matter out of which it comes to be and into which it will be resolved when it perishes. And this in turn must be the case because of what was said in the ninth argument.⁴⁷³ [namely,] that everything that comes to be comes to be out of something and it is impossible⁴⁷⁴ for anything to come to be out of nothing. The argument is Aristotelian, since [Aristotle] himself has included it in the first book of the course on physics.⁴⁷⁵ (20

Such, then, is the gist of the present argument. Let us for our part,

conceding everything else he says, ask just this. Does it necessarily follow from the [fact that] matter comes to be and perishes that it has need of other matter? For this is the absurdity that appears to follow. [And when] it has been shown that this does not follow (that is, that it is not necessarily the case that, if matter comes to be, it too comes to be from matter), there will be nothing left to prevent matter from not being everlasting but having a beginning [to its] generation. So, if there is no argument that establishes that [matter] is everlasting, nor should the cosmos⁴⁷⁶ be believed to be everlasting on account [of matter] on the basis that the matter of the cosmos and its form have [always] coexisted together. For it is as a result of assuming that matter is everlasting, that he has concluded that the cosmos too is everlasting.

10. It is worth asking him first in what sense he claims that everything that comes to be has need of matter in order to come to be. Is it that the thing that comes to be gets its being and substance from matter and that matter itself changes into the substance of the thing that comes to be and becomes that very thing? Or is it that the thing that comes to be needs some substrate in which to achieve existence because it cannot exist on its own without a substrate; in the way, say, that letters need wax to exist even though the substance of the wax does not become the actual letters themselves but the letters take on existence in it as though in a kind of receptacle, or that a shape needs bronze or some other matter in order to come to be even though the bronze does not become the actual shape but the shape exists in it?

Well, if anyone takes the former position, this has already been refuted by us at the end of the ninth chapter⁴⁷⁷ and it is possible to gather [our] detailed teaching on these matters from that passage (*ekeithen*), [which is] that the matter underlying the forms does not actually (*autokhrêma*) become the forms but is only a receptacle for the forms, as indeed Proclus himself, drawing on Plato, says here.⁴⁷⁸ Remaining unchanging, the bronze, for example, becomes a receptacle for shapes and the wax for writing. And indeed in the case of all physical things, the three-dimensional, keeping to its own nature and undergoing no change *qua* [three-dimensional], is a receptacle for all of the physical forms. For if the substrate were to change to the substance of the thing that comes to be, the substrate would no longer keep to its own nature, because that from which a thing changes is no longer in it. The result would be that the matter would change *qua* matter and would no longer remain matter; and thus the transformation of things into one another would have been done away with, since nothing would have remained unchanging, as we have shown in detail in the passage referred to.⁴⁷⁹ And so it is not possible that matter changes into the substance of the thing that comes to be.

And if they will say that the second [position] is necessarily

[correct], [namely,] that everything that comes to be needs some substrate, or matter, to act as a recipient (*hupodekhesthai*) for its existence (with the consequence that on that account it seems necessary that matter too, if it is to come to be, has need of other matter), I do not see on what basis (*pothen*) they can establish the necessity of [their] argument.

If it *were* the case that everything that comes to be needed something else of the same kind as it is in order to come to be, it would follow that matter too needs other matter if it is to come to be. In actual fact, however, this is both false and impossible. Since all things that come to be are composed of matter and form there is every necessity that what comes to be should be either the form or the matter or the combination of the two. So if everything that comes to be needs something else of the same kind as it is in order to come to be, if (1) what comes to be is the form, it will have need of another form of the same kind in order to come to be, and that in turn, if it is to come to be, of another, and if (2) it is the composite, it will have need of another composite of the same kind as itself in order to come to be, and that in turn, if it comes to be, of [yet] another. So, in order for bronze to come to be, it will have need of bronze, in order that whiteness may come to be, it will have need of whiteness, and in order that heaviness may, of heaviness. But this is absurd. It will have to go on *ad infinitum* and thereby do away with generation, since it is not possible for generation to pass through an infinite number [of stages], as Aristotle has shown⁴⁸⁰ in *On Generation*.

And as well as being absurd it goes against the evidence of the facts themselves,⁴⁸¹ because, on the contrary, everything that comes to be comes to be out of something *not* of the same kind. Bronze comes to be out of not-bronze and water out of not-water and human beings out of not-human beings. (I am referring to the material cause, since that is what we are currently talking about. For even though a human being does generate a human being, [in that case] the one is a producer (*poioun*), the other a product (*gignomenon*), and [our] enquiry is not at present about the productive cause. It is, indeed, necessary for everything that comes to be to come to be through the agency of (*ek*) a producer, whether the producer is like or unlike the thing that comes to be; if corn, for example, is produced from (*ek*) corn, it is produced [by it] as by (*ek*) a productive cause. The creative principles of the thing that comes to be are present in the sown seed, as they also are in human and in other seed, and the water that moistens [it] and the ambient soil provide (*hupotithenai*) the matter, as the womb does the menses. Hence, if the water fails, it is not on account of the productive agency but because of a lack of matter that the grain turns out to be without issue.)

So if everything that comes to be comes to be from something not of the same kind as far as the material cause is concerned, a human

being, for example, from something that is not a human being and fire from not-fire and a scientist (*epistêmôn*) from a non-scientist,⁴⁸² [and this is the case] whether the thing that comes to be is the composite or the form, then nothing that comes to be has need of another such as itself in order to come to be. And nor therefore will prime matter, or the first substrate, if it comes to be, have need of other matter, or substrate, in order to come to be.

Nor, just because the forms need matter in order to become forms, does it follow (*dia touto*) that matter too, if it is to come to be, will have need of matter. The forms, because they cannot exist on their own, have need of matter to receive them, in which they achieve existence, but matter, being the recipient of all things and the first substrate for everything, does not have need of anything else to receive it so as to achieve (*pros*) existence. Indeed, if they could exist on their own, the physical forms would not have need⁴⁸³ of matter when they come into existence either, but would come to be without matter. And so nor will matter, if it at first does not exist but has a beginning to its existence, have need of other matter, or a substrate, in order to come to be, since it is itself the very first substrate of all things and has no need of another substrate for its existence. Matter is not in a substrate but [is itself] a substrate. For just as the likeness of a human being, say, or that of a horse, has need of bronze in order to exist, but the bronze does not have need of bronze in order to become bronze, even so is it analogously (*kata to akolouthon*) necessary in natural generation that things that have their existence in a substrate should, if they are to come to be, have need of matter, or a substrate, in which to come to be, since they cannot exist on their own, but that the substrate itself, or matter, will not, if it comes to be, have need of any [further] substrate or matter. For in that case it would no longer *be* a substrate, or matter, but *be in* a substrate and a form.

If matter does need anything at all in order to come to be, it will certainly be form it has need of. For just as the enmattered form cannot exist without matter, in the same way neither can matter, *qua* matter, exist without form, because matter and form are relative to one another, as Proclus himself says in the present proof.⁴⁸⁴ So, just as something moving to the right⁴⁸⁵ does not have need of the right but of the left in order to come to be on the right and something moving to the left needs not the left but the right in order to come to be on the left and with all relatives each of the opposed terms needs the other in order to exist, just so, no doubt, will matter too need, in order to become matter, not matter but form; for relatives have their being in their relationship to one another.

It is neither possible, then, for matter *qua* matter to exist apart from forms (for it will exist in vain) nor for the forms to do so apart from matter (for it is not even possible for them to subsist on their

own apart from matter). So each will need the other and not itself or
 25 its like. So, just as to say that forms need matter in order to come to
 be does not imply that enmattered forms are everlasting (they are in
 fact clearly seen to have a beginning and an end to their existence),
 452,1 neither does the fact that matter needs forms if it is to exist imply
 that⁴⁸⁶ it is everlasting.

Therefore no necessity has emerged that matter, if it comes to be,
 should have need of [further] matter to come to be. Rather, the
 opposite is the case. If matter is to come to be, it is impossible that it
 should have need of other matter.

And besides, if particular (*hê tis*) matter is related to particular
 5 (*merikos*) form as matter plain and simple and form plain and simple
 are [to one another],⁴⁸⁷ and [if] matter plain and simple, if it is to come
 to be, will, *qua* matter, have need of other [matter], then particular
 matter too, if it is to come to be, will, *qua* matter, have need of matter.
 So if the second [proposition] is shown to be false and impossible (I
 10 mean that particular matter, in so far as it becomes matter,⁴⁸⁸ has
 need of matter), then it is also false that matter plain and simple, if
 it is to come to be, has need, *qua* matter, of matter in order to become
 matter. (By particular matter I mean the matter of, say, a house or
 a boat, or, among natural things, of, say, Socrates or a particular
 15 plant.)

Now, that particular matter comes to be and is not ungenerated
 but comes into being and exists when the form of which it is the
 matter also exists Proclus himself clearly states⁴⁸⁹ in the present
 [proof]. 'Indeed, particular matter', he says:

is [only] matter when the form is also [present]. Hence artisans
 20 make what is as yet not matter serviceable, and it is to the
 extent that they progress towards the production of matter that
 form arrives on the scene. Stones, for instance, are not matter
 for the form of the house before they have been, say, dressed and
 fitted together, but [only] when they also receive these [treat-
 25 ments]. Therefore it is at the moment that they truly become
 matter that form is at once instantaneously present.

So, if particular matter is not everlasting but becomes matter, and if
 particular matter, inasmuch as it becomes matter, has need of mat-
 ter in order to become matter, then its matter too does not always
 exist but [only] when [the matter] whose matter it is also exists, and
 453,1 for that reason it is generated and it too will need another, third,
 matter in order to become matter. And since this last in its turn is
 not everlasting, since not even [the matter] whose matter it is is
 everlasting, but becomes matter at some point in time (*pote*), it too
 will need a fourth matter in order to become matter, and the fourth
 5 in turn, since it does not always exist but becomes matter at some

point in time, will have need of another, fifth, matter, and that of another, and this will continue *ad infinitum*.

If this is absurd, then particular matter will not, inasmuch as it becomes matter, have need of matter in order to become matter. For if we think of (*lambanein*) particular matter, such as stones dressed to serve as matter⁴⁹⁰ for a house, not as unitary (*hen*) and simple⁴⁹¹ but as a composite entity consisting of this or that (*tis*) stone serving as a substrate and such-and-such (*toiosde*) dressing,⁴⁹² we are no longer thinking⁴⁹³ of it as matter coming into existence but as the generation of form or of a composite – as though someone wanting to make a seat for himself were to use this [same] stone as matter [and] add the form of the seat to it.⁴⁹⁴ And if we think of (*theôrein*) the dressed and fitted stone as matter of a house, no longer will one aspect of it be substrate, another form (for no matter *qua* matter consists of matter and form; on that assumption (*houtôs*) we shall have proceeded to infinity,⁴⁹⁵ as we have already shown⁴⁹⁶), but this whole, the dressed and well-fitted stone, is being thought of as a single and simple entity. And so, in producing matter for a house, the builder produces dressed stone as a single and simple entity. After all, it is not such-and-such a shape of the stone alone, as for instance this [particular] cubic [shape], that is matter for a house, nor yet the shapeless nature of the stone by itself without the shape, but it is the combination of the two as a single entity that is matter for a house.

But Proclus himself has laid this down for us quite clearly in the present proof where he says:⁴⁹⁷

Stones, for instance, are not matter for the form of the house before they have been, say, dressed and fitted together, but [only] when they also receive these [treatments].

And so neither the stones alone without their having been shaped and fitted together are matter for a house, nor, *a fortiori*, their shape on its own, since it cannot even exist on its own. So if it is the combination of the two as a single entity that is matter for a house, as Proclus himself has well stated, and the combination of the two does not have need of any substrate in order to come to be, then particular matter does not need matter in order to become matter. After all, all generation is, as was also shown in the ninth chapter,⁴⁹⁸ the generation of some form. And since, as we said there,⁴⁹⁹ the final form (*apotelesma*) of one thing becomes matter for another, when we think of the combination of the two together (I mean the substrate and the form) as matter for something else, we must think of it as becoming one and simple. For particular matter, such as that of a house or that of this particular human being or that of all composite [things], is not simply matter and solely matter so that we can really look for it to be the simplest and least complex [of things],⁵⁰⁰ but in

one respect matter, in another not matter but a compound of matter and form, as was shown in detail, not to repeat the same arguments again, in the ninth chapter.

So if, on the one hand, one is going to think of particular matter as a kind of compound entity, one will no longer think of it as [simply] matter but as composed of both matter and form, like a stone, for instance, and its particular (*toiosde*) shape; but if, on the other hand, one is going to think of it as the matter of a house, one must think of the stone that has been shaped in a particular fashion as one and simple. After all, it is not the unshaped stone but the shaped that is matter for a house, as Proclus himself has stated. So, just as shaped stones are not matter plain and simple but matter [only] relative to something, being relative to the form of a house which emerges⁵⁰¹ through their combination, so too are they simple [only] relative to something else, I mean to the house which is composed of them and such-and-such a shape.

And so, if the combination of the two⁵⁰² (I mean, of course, the shaped stones as being a single and simple entity) is matter for the house, and if the combination of the two does not need matter in order to come to be, then particular matter does not need matter in order to come to be, even though it is generated. So if particular matter, if thought of as matter that comes to be, has no need of further matter, and if matter plain and simple is related to form plain and simple as particular matter is to particular form, then nor will matter plain and simple, if it is to come to be, have need, *qua* matter, of further matter. So it is clear from this too that there is no necessity, if matter comes to be, for it to come to be out of something [already] in existence.

And so, now that the argument which appeared to reduce the argument regarding (*peri*) its generation to absurdity has been refuted, there will be no argument [left] which [can] establish that matter must be ungenerated.

11. But, he says, we see nothing come to be that does not have need of matter; and therefore matter too, if it comes to be, will have need of matter.

But every particular thing that currently comes to be comes to be not with respect to its underlying matter, or the first substrate of its form, but in so far as it is invested with form. And in fact this has been shown⁵⁰³ previously in the ninth chapter – and [also]⁵⁰⁴ that it is not necessarily the case that the whole and the part come to be in the same way; and that, of necessity, for [the cosmos] to remain one and the same cosmos, the perishing and generation of its parts takes place through their changing into one another, the forms for their part perishing into non-being, while the same substrate, or matter, persists in the things that change in order that the universe too may remain one and the same. So if generation, which is presently⁵⁰⁵

generation not of universals but of particulars, takes place with respect to forms and not with respect to matter (if, as is the case, we presently⁵⁰⁶ see matter neither coming to be nor perishing), then, inasmuch as forms cannot exist on their own, it makes sense (*eikotôs*) that everything that comes to be has need of matter; but it is not also the case, if matter too has come to be, that it had need of matter, even if forms do. Indeed, it is not even reasonable to assume the same generation for forms and for matter. A thing that has its being in a substrate will indeed have need of matter to receive it so that it can remain in existence once it has come to be. The substrate itself, however, will not, if it comes to be, have need of yet another substrate; it would no longer *be* a substrate but *in* a substrate. So let them not demand the same generation in things that are not the same – or, better, opposed. After all, if matter and form are relatives if, as is the case, the former is ‘for the sake of something’, the latter ‘that for the sake of which’, and if relatives are [in the category] of opposites, then their generations must also be opposed; and indeed (*epei*) both the generation of the cold and the hot (since the former occurs by condensation, the latter by rarefaction) and that of up and down (for the former is an ascent, the latter a descent) are opposed, and the same goes for the other [opposites]. So if the opposite must belong to the opposite,⁵⁰⁷ as is shown⁵⁰⁸ in the *Topics*, and it belongs to the generation of form to have need of matter in order for it⁵⁰⁹ to come to be, then the opposite of this will belong to the generation of matter, and that is to have no need of [matter]⁵¹⁰ in order for matter to come to be.

12. What? Were not we ourselves just saying⁵¹¹ that matter must remain the same and unchanging, whether it is the three-dimensional that is prime matter or another [kind of] formless [matter] other than it? And something that is altogether unchanging must, one supposes, also be excluded from perishing and generation.

Well, we did not grant that unchangingness belongs to it without qualification (we see no argument that can establish that), but [merely] said that during the transformation of particular things into one another it is necessary that the common matter of the things changing into one another should remain unchanging during their transformation. And it is certainly not on that account necessary that it should also be unchanging without qualification. For example, when artefacts of bronze and gold change into one another, the bronze or gold that underlies them remains unchanging during their transformation [and] is not in any way affected as far as the account of its own being is concerned, but even so is neither ungenerated nor imperishable because of it. Therefore, even if during the transformation of the parts of the cosmos into one another the substrate remains unchanging, it is not automatically (*êdê*) necessary that it [sc. the substrate] should also be absolutely ungenerated and imperishable.

5 In fact (*alla*), if the production of the cosmos (*kosmopoia*) can be⁵¹² shown to have had a beginning to its existence,⁵¹³ it is also necessary that matter should have a beginning to its existence and not be everlasting. And if it [sc. matter] has had a beginning to its existence, it has not come to be out of anything already in existence; for everything that comes to be (i.e. everything that has a beginning to its existence) without previously existing (for that is what I mean by something that comes to be and not just something that switches from not being to being through some [process of] generation and the lapse of time) takes on existence and substantial being (*ousia*), inasmuch as it comes to be, after [previously] not existing (*ex oukontos*) and is, upon perishing, resolved once more into non-being, as was shown⁵¹⁴ in the ninth chapter. And so matter too, if it comes to be and has a beginning to its existence, will not come to be from anything already in existence, but, in no way existing before it comes to be, is brought from non-being into being (*to on*) by the one who created it.

20 Thus, considering the present proof on its own, we have found no necessity that matter will, if it comes to be, have need of other matter on the ground that things that come to be come to be out of matter. On the contrary, the opposite has turned out to be necessary. Since things that come to be have need of matter because (*katha*) they are invested with form as they come to be (i.e. are brought into being), it follows that matter, if it comes to be, does *not* have need of matter.

459,1 13. And since Proclus' account again presents itself (*proienai*) as though it were part of Plato's doctrine, let someone show me where Plato has as explicitly⁵¹⁵ postulated that matter is beginningless and everlasting, having no beginning to its generation. In fact it is impossible to find Plato saying this anywhere in the dialogues. And anyway (*hopote*), even if he *had* as clearly postulated that it is everlasting, and if by matter's being everlasting it was necessarily implied that the cosmos too is everlasting, nobody who has more concern for the truth than for Plato⁵¹⁶ could, in my opinion, have reasonably concluded from this that Plato thought that the cosmos too is ungenerated and everlasting, since he clearly states that it has come to be from some beginning and has not always existed but before it came to be did not exist. What if Plato did not see what necessarily follows from [his] position on matter? Being after all human, he has in many places failed to achieve a true grasp of the facts, as we pointed out in the previous chapter.⁵¹⁷ And nor, from the fact that some people put forward conflicting positions without realising that they are conflicting, can it be inferred that they do not [really] hold one of these conflicting positions but [only] that they hold one of them, the one that is contrary to the truth, mistakenly (*pseudôs*). And because this (I mean putting forward conflicting positions) has clearly befallen Plato in other works too, I shall now mention just one of his [mistakes] by way of an example.

14. In the *Timaeus* Plato postulated that of the four elements earth alone is unchanging and the other three change into one another. And one can indeed hear Plato himself state this in as many words (*epi lexeôs*).⁵¹⁸ ‘All four kinds’,⁵¹⁹ he says:

seemed able to be born from one another into one another, but this impression is false. Four kinds are indeed generated from the triangles we chose, but while three are constructed from one [of them], the one with unequal sides, the fourth one alone is constructed from the isosceles triangle. Hence it is not possible for *all* of them to be resolved into one another so that a few larger [particles] are produced from many small ones or *vice versa*. But the [group of] three can be. These all originate from the one [triangle], so when the larger [particles] are broken up, many small ones will be formed from the same [triangles], taking on their proper shapes.⁵²⁰

Then, after other things:

Earth, when it encounters fire and is broken up by its sharpness, would drift about – whether, after being broken up, it finds itself in the fire itself or in an expanse (*onkos*) of air or water – until its parts meet up somewhere, are joined together, and once more become earth; for they could never pass into any other form.⁵²¹

That he claims that earth alone of the four elements does not change into the others while the others do change into one another has become clear, then, from the very text of Plato and is well-known and accepted by everyone, and hence there has been no need of further elaboration on our part. However, this same Plato [elsewhere] fabricates the heaven itself and the bodies of living creatures and each and every composite [entity] out of these same four elements.

We shall comment on the body of the heaven elsewhere.⁵²² But listen again to Plato himself as he tells [us] that he constructs our bodies and those of other creatures out of the four elements, for this is what my argument requires at this point. ‘And’, he says:

having made these dispositions he – he is referring to the creator of the universe⁵²³ – abode in his customary nature.⁵²⁴ And while he remained [thus], his children, heeded the ordinance of their father and were obedient to it. Having received the immortal principle of a mortal living creature, in imitation of their own creator, they borrowed portions of fire, earth, water and air from the cosmos, on condition that they would be returned, and bonded what they took together into one.⁵²⁵

15 The same Plato, then, both (1) states that earth does not change into the other elements although the other elements change into one another and (2) wants the bodies of mortal creatures and of everything else to be composed of these same four elements, But these statements – I am referring, of course, to [his] saying both that earth does not change into the other [elements] and that composite [entities] are composed of the four elements – are in conflict and incompatible and not those of one who ‘joins thread to thread’,⁵²⁶ as the proverb has it. For if, on the one hand, earth is unchanging, no
 20 composite [entity] is composed of the four elements; if, on the other, composite [entities] are constituted of the four elements, it is impossible that earth should not be able to change into the other [elements].

462,1 In fact (*gar*),⁵²⁷ none of the elements – not fire, not earth, not either of the others – is observed in its actual form (*energeîai*) in composite [entities]. [Otherwise] there would have had to be juxtaposition of the elements, as the followers⁵²⁸ of Empedocles held, and not mixture, whereas in actual fact (*nun*) all the qualities of the elements permeate one another, even if their particles (*onkoi*) lie side by side.⁵²⁹
 5 Indeed there is no part of a composite entity, even if you are talking of the smallest one possible,⁵³⁰ which is not constituted of the four [elements]; and this would be an impossibility if there were juxtaposition and not total⁵³¹ mixture of the elements in a composite entity.

10 So, if none of the elements is present in its actual form (*energeîai*) in a composite entity but with their mixture the form of each has been destroyed and some other form has supervened upon their blending and mixture (that of flesh, say, or of blood, or some other), it is, I imagine, clear to everyone that in a composite entity earth too has
 15 changed. And if, when the form of the elements has been destroyed within a composite, something unitary (*hen*) and uniform, the product of all of them, has emerged, flesh or bone, for instance, or something else, and if it is possible, or rather necessary, for flesh to
 20 perish and be resolved once more into its components when the portions borrowed from the cosmos are paid back, then it is possible for any given part or any given particle (*onkos*) of it, given that it is all uniform, to become either earth or water or air or fire; it would
 25 after all be arbitrary and mere fiction to say that this part of flesh becomes water, that earth, another fire, yet another air when every part of flesh is uniform with the rest and it is all resolved into the elements. So if it is possible for any particle (*onkos*) of flesh at all to
 463,1 receive into itself the form of each of the elements, then it is possible for the part of flesh that previously underlay the form of earth (I mean the three-dimensional, or body, itself) to receive into itself,
 5 when the flesh has perished, the form of water or of another element. And so earth too must change into the other elements; for this is [exactly] what the transformation of the elements into one another

is, for the same substrate to receive the form of different elements at different times, as we said⁵³² earlier. 10

But why need I prolong my argument that earth too changes into the other elements further when this has also been clearly demonstrated by all natural scientists since Plato?

The reason why we have recalled these arguments now is this. If it has been shown that to say that earth is unchanging conflicts with saying that composite bodies are composed of the four elements, what prevents someone else, reproducing (*mimeisthai*) their⁵³³ ignorance of the arguments,⁵³⁴ from concluding from this that if Plato says that earth is unchanging then he does not want composite bodies to be fabricated out of the four elements even if he seems to say this in the text?⁵³⁵ Well, in my opinion arguments of this kind are typical either of people who are utterly contentious or of those who love Plato more than the truth.⁵³⁶ For, as I said before,⁵³⁷ what prevents anyone who uses this method from concluding that nobody, whether an ancient or a modern, ever had an incorrect view of the facts? A devotee of Protagoras, for example, could say that if this or that absurdity follows from the hypothesis which states that nothing has a determinate nature, Protagoras could not have advanced it, even though he does clearly advance it in his writings. 15 20 25 464,1 5

So, just as in the present case, once we have accepted that composites are composed of the four elements, we admit out of a love for the truth that [the view] that earth is unchanging is false, [and are] not in the least in awe of Plato's view, in the same way, clearly, even if he did say that matter is everlasting, since he has also explicitly postulated that the cosmos has come to be and has a beginning to its existence, we accept what is plainly true [and] admit that the philosopher has erred on the other point. [And] we do not [by doing so] become enemies of Plato, but rather on that very account, his friends, since he explicitly enjoined and exhorted⁵³⁸ [us] to pay little heed to Socrates and much more to the truth. And let us keep an eye on this fellow⁵³⁹ in what follows in case we have to say the same things over and over again. 10 15

15. And in actual fact (*nun*), the man, as I said earlier,⁵⁴⁰ has manifestly not stated that matter is beginningless or everlasting anywhere in the dialogues.⁵⁴¹ If, then, Plato clearly wants even matter to exist through (*ek*) God and has explicitly stated that the cosmos has come to be and has a beginning to its existence [and] nowhere declares that matter is beginningless or everlasting, and [if] matter and generation are relatives and either exist or do not exist together, what would be the more reasonable and compelling conclusion as to Plato's view? [Should one,] on the assumption that matter is everlasting, although Plato has nowhere postulated this, reach a conclusion diametrically opposed to his own statements, [namely,] that in his view not even the cosmos has had a beginning to its 20 25 465,1 5

existence, even though the man has loudly and clearly asserted and demonstrated that the cosmos has *not* always existed but has a beginning to its existence and did not exist before it came to be, as we learned⁵⁴² in the sixth argument? Or [should one] conclude from the [fact] that according to Plato the generation of the cosmos has a beginning that matter too is not everlasting according to him but has a beginning to its existence, even though he does not openly express this in as many words?

For my part, I certainly believe that to anyone who has an eye to the truth and who can distinguish between the consistent and the conflicting in arguments the second [conclusion] will appear both true and necessary. Therefore, if Plato assigns a beginning to the generation of the cosmos, he also believed that matter has had a beginning (*arkhesthai*) to its existence and that it is neither ungenerated nor everlasting, whereas (*hopote*), even if he did say that matter is everlasting, to concede even that, not even thus would it be proved that the cosmos is also in his opinion everlasting, as we have recently shown.⁵⁴³

The End of the Refutation of the Eleventh Argument

Notes

1. It will be useful to repeat (with one revision) the note in my translations of *Aet.* 1-5 and 6-8 on the terminology used to describe the various divisions of *Aet.* In the preserved headings for chapters 2-18, which are probably, as argued in the Translator's Note, Philoponus' own, Proclus' arguments are *logoi*, Philoponus' replies are *luseis* and the sections into which they are divided are *kephalaia*. In the work itself Philoponus' terminology is less consistent. An argument of Proclus is frequently an *epikheirêma* (26,20, etc.), a *logos* may be either an argument of Proclus (126,23, etc.) or Philoponus' reply (69,5, etc.), and a *kephalaion* may be an argument of Proclus (94,22, etc.), a reply of Philoponus (70,9, etc.), or a section of the last (130,11, etc.), in which case it is always a *kephalaion* of a *logos*. In the chapter headings I translate *logos* 'argument', *kephalaion* 'section' (a good case could be made for translating *kephalaia* 'Summaries of the Main Points' in these headings – see H.D. Saffrey and L.G. Westerink, Proclus, *Théologie platonicienne*, vol. 1, Notes complémentaires, 1, n. 2 – but I have been influenced by Philoponus' usage in the text, which I have outlined above), and *luseis* 'refutation'. In the work itself I translate *epikheirêma* 'proof', *logos* 'argument' when it refers to one of Proclus' arguments, but 'chapter' when it refers to one of Philoponus' replies, and use 'proof', 'chapter' or 'section' for *kephalaion* depending on whether the reference is to an argument of Proclus, a reply of Philoponus or a section of such a reply.

2. No single translation of the passive of *ptheirein* works well in all contexts. Where, as here, there is an expressed or implied agency of destruction, I normally translate 'be destroyed', where there is not, 'perish', or, occasionally, 'cease to exist'. (For similar reasons, I sometimes render *phthora* 'destruction', sometimes 'perishing'.) This differs somewhat from my practice in my translations of *Aet.* 1-5 and *Aet.* 6-8, for which see pp. 8 and 4 of their respective introductions.

3. When Philoponus outlined Proclus' present argument and his own response to it at 302,22ff., I rendered *kakia* 'defect', but I now think that on balance 'evil' works better.

4. Changing *te* to *ge* at 313,8, as suggested by Rabe. (I use the phrase 'as suggested by Rabe' to identify conjectures that Rabe makes in his apparatus but does not adopt in his text.)

5. Lines 7-11 echo Plato *Rep.* 608D13-609B2, the beginning of Socrates' proof of the immortality of the soul.

6. Or perhaps 'he himself', which roughly equals 'the master' (for examples of the usage, see LSJ, *autos* I.1). In any case, the reference is to Plato.

7. *Tim.* 34B; *Rep.* 380D-381C.

8. sc. because it is 'blessed'.

9. For both Plato (cf. *Tim.* 46C-E) and Proclus these contributory causes (*sunaitia*) are physical mechanisms and are subservient to the primary, rational, causes of the universe and its contents. At *in Parm.* 888,20-1 Proclus identifies them as the instrumental, material and formal causes, as opposed to the final, efficient and paradigmatic (which is where the Forms belong) causes, which are

rational in nature. (Cf. Hankinson, *Cause and Explanation in Ancient Greek Thought*, 113-14 and 326-7.)

10. The conjunction of *tetagmenon* ('ordered') and *kekosmêmenon* ('well-arranged'), for which cf. in *Tim.* 1.285,1-3 and 298,2-4, seems to be a reminiscence of Plato, *Gorg.* 504A1, 506E1 and to be essentially pleonastic in the present context. I would normally translate both words 'ordered' but have resorted to 'well-arranged' for *kekosmêmenon* (and, by extension, 'disarray' rather than 'disorder' for *akosmia*) to preserve a distinction between them.

11. sc. disarray and disorder.

12. LSJ gives 'unchangeable' or 'unchanged' for *ametablêtos*, but often, as here, 'unchanging' seems to work better than the former and I have preferred it to 'unchangeable' throughout. (On the handful of occasions when 'unchanged' is required I alert the reader by adding the transliterated Greek in brackets.)

13. Changing *ti* to *touto* at 315,12. For the thought cf. 338,10-11.16-20.

14. Although Proclus writes (at 314,13-15) that 'everything that comes to be must come from something (*ek tinos*) and it is impossible for anything to come to be from nothing (*ek mêdenos*)', Philoponus prefers to talk of things coming to be *ex ontos* or *ek (tou) mê ontos* and perishing *eis (to) on* or *eis (to) mê on*. These phrases, which go back to Aristotle and beyond, are not always easy to translate. In view of Philoponus use of the phrases *ek tinos ontos* (which I translate 'out of something [already] in being') and *ek tinos proteron ontos* ('out of something existing beforehand') I have decided to use 'out of something [already] in being' for *ex ontos* and (for the most part) 'into something with being' for *eis on*. On this basis *ek mê ontos* should be something like 'out of something not [already] in being', but, in spite of Philoponus' willingness to pluralise the phrase, this will hardly do, and, even if the positioning of the negative particle *mê* does not rule it out, 'not out of anything [already] in being' does not work much better. Accordingly, I have fallen back on 'out of non-being' for *ek mê ontos* and 'into non-being' for *eis mê on*. There are also variants of these negative phrases in which *mê* is replaced by the adverb *mêdamôs* ('nowhere', 'never', 'not at all', etc.) with or without the addition of its synonym *mêdamêi*. Since I have opted to use 'non-being' to render *mê ontos* and *mê on*, I cannot translate these adverbs literally, so I use the paraphrases 'out of absolute non-being' and 'into absolute non-being'.

15. This and the remaining sections are all concerned with the refutation of Proclus' statement at 314,13-15 that 'everything that comes to be must come from something (*ek tinos*) and it is impossible for anything to come to be from nothing (*ek mêdenos*)'.

16. For my reasons for choosing to render *dêmiourgein* 'create', see pp. 7-8 of the introduction to my translation of *Aet.* 1-5. In cases, like this, where pre-existing material is mentioned 'fashioned' or 'crafted' would of course work better, but notice that Philoponus is prepared to call his own god, who creates *e nihilo*, a *dêmiourgos* and even to say (at 343,6-7) that he creates (*dêmiourgein*) out of non-being.

17. Here, and later, one could almost translate 'out of some previous substrate'.

18. Philoponus sometimes prefers *eis to einai paragein* (as at 340,4) and sometimes *paragein* on its own, as here. I normally render both 'bring into being'.

19. Changing *proüparkhein* to *proüparkhei* at 315,26, as suggested by Rabe.

20. 'Totality' (*holotês*) is commonly used to describe the main body of each of the four elements (sc. the earth, the sea, etc.) as opposed to the detached portions of each of them that occur in composite entities such as plants and animals and here a kind of reservoir of forms is being envisioned along the same lines. In my

translation of *Aet.* 6-8 I translated *holotês* 'mass' and other possible renderings are 'aggregate' and 'ensemble'.

21. Presumably a (rather odd) variant on *ek tou mêdamôs ontos* ('out of absolute non-being').

22. For 'come into existence' here and 'occur' at 317,2 as renderings of *huphistasthai* see the note at 365,13.

23. Although 'art' is a little old-fashioned for *tekhne*, the nature-art dichotomy is well-established in English and I think 'art' still works better than alternatives such as 'skill' or 'expertise' in contexts like this.

24. Most notably in chapter 6; references can be found under 'Plato' in the subject indexes to my translations of *Aet.* 1-5 and 6-8.

25. It is possible that *peithein* at 317,16 is a gloss on *biazesthai* that has found its way into the text, in which case I would translate: '... to brush such clear statements aside and insist on the basis ...'

26. sc. the divinity of the cosmos and its implications.

27. *Phd.* 91B-C; cf. the similar use of Aristotle, *EN* 1096a11-17 at 30,15-31,7 and 144,21-2 and my notes *ad loc.* in my translations of *Aet.* 1-5 and 6-8.

28. Literally 'spoken from the tripod', the three-legged stool on which the Delphic oracle sat while delivering her oracles.

29. Or perhaps 'the middle sphere among the planets', but cf. 537,6.

30. 38D1-2. Proclus (*in Tim.* 3.60,31-63,30, and cf. *in Rem.* 2.219,20-221,26), although much more gentle with Plato, basically takes the same view as Philoponus. He points out (presumably on the basis of Aristotle, *Metaph.* 1073b17ff.) that Eudoxus, Callippus and Aristotle were of the same opinion as Plato and cites Ptolemy and, more importantly for him, the *Chaldean Oracles* in favour of the middle position for the sun.

31. These were arithmetic, geometry, astronomy, and the acoustics of music. But perhaps the phrase means no more than 'anyone with any scientific education'.

32. At, for example, *Phd.* 81E-82B; *Phdr.* 249B; *Rep.* 617D-620D; *Tim.* 42B-C; 91D-92C.

33. See, for example, Sorabji, *The Philosophy of the Commentators*, vol. 1, 213-16.

34. On this work see my translation of *Aet.* 6-8, 133, n. 79.

35. At *Tim.* 80C, where amber and magnetite are mentioned as apparent cases of 'attraction'.

36. Cornford, *Plato's Cosmology*, 326, cites Wellman for evidence of controversy about the phenomenon of attraction, and Galen argues that Plato is wrong to deny it in his commentary on the *Timaeus* (fr. 19,26-43).

37. *Tim.* 91B-C.

38. cf., with Rabe, *De locis affectis* 8.425,4ff. (Kühn). He also cites Kühn 16.179ff., which I have been unable to trace, and there is another reference to the *Timaeus* passage at *De semine* 4.515,14ff. (Kühn).

39. *Tim.* 77A-B.

40. See, for example, *DA* 410b22-3; 424a32-b3; *Somn.* 454a11-19; *GA* 731a33-b4; 741a9-10.

41. sc. the Platonists.

42. Adding *kata* before *ton* at 320,6, as suggested by Rabe.

43. 'certain potions or other such coercions' (*pharmakois tisin ê toiautais anankais*). One's initial assumption is that the potions will be herbal concoctions and the 'other coercions' will include such things as vaginal suppositories and 'surgical' instruments; in other words that the methods envisioned are essentially

‘medical’. However, when Philoponus later (322,6-9) paraphrases the present passage, he glosses ‘certain potions or other such coercions’ with the phrase ‘abortifacients and other such magical expedients’ (*phthoreiois kai toiautais tisi manganeiais*) and just a few lines on (320,17) he already describes the procedures of the abortionists as ‘sorcery’ (*manganeia*), which suggests that he actually thinks of them as magical, or at least involving magic, and that the ‘other coercions’ will include things such as spells, incantations and amulets. Perhaps he was influenced by the circumstance that at *Theaetetus* 149C-D Plato himself says that midwives sometimes use ‘drugs and incantations’ to induce abortion. Rabe was obviously puzzled by Philoponus’ glossing of *anankais* with *manganeiais* and in his apparatus suggests that he may have written *manganeiais* in both passages, but (1) he is unlikely to have written *manganeiais* in line 13 and followed it up with *manganeian* in line 17 and (2) *anankê* itself, like the compound form *katanankê*, for which LSJ gives ‘means of constraint: spell’ and Lampe ‘charm’, is (although the dictionaries have not picked up on it) used of various forms of magical constraint in passages such as Eusebius *PE* 3,16 and 5,8 (with which, to judge by 211,15-18 below, Philoponus may well have been familiar) and Philoponus *Opif.* 202,16.

44. As is usually the case with quotations in ancient authors, those from Plato and Homer in this chapter do not agree in every detail with the standard modern texts. Sometimes in such cases we may suspect that the differences are the result of carelessness or even deliberate distortion on the part of the author, but in this instance they are all of the kind that regularly arise in the copying and recopying of hand-written texts and, since none of them affect the argument, I mostly translate Rabe’s text without comment. (Whether any particular variant was already in the text that Philoponus read or only arose during the transmission of the text of *Aet.* has to remain an open question, but I suspect that the latter is true of most of them.)

45. At 320,24 I have translated the text of Plato, which reads: [Socrates] *en tois gamois toinun kai paidopoiiais eoike to orthon touto ginesthai ouk elakhiston*. [Glaucón] *pôs dê*; [Socrates] *dei men, eipon ...* The manuscripts of Philoponus have ... *oun* [with *hôs* above it] *elakhiston dê dei men eipon ...*, which looks like the result of scribal misreading, and Rabe prints *en tois gamois toinun kai paidopoiiais eoike to orthon touto ginesthai oun hôs elakhiston dê. dei men, eipon ...*, with nothing to indicate the division between speakers.

46. In the text of Philoponus the words in brackets need to be supplied by the reader: in the manuscripts of Plato they are actually present.

47. Translating *ei* (Plato) rather than *êd’* (the manuscripts of Philoponus) at 321,4.

48. 459D-E.

49. 460C.

50. In the text of Plato the word *ephê* (‘he said’) is present after the word *mellei* (‘is to remain’), which has the effect of giving everything after *eiper mellei* to Glaucón rather than Socrates. This would give: ‘[Socrates] ... they will, as is proper, conceal in a secret and undisclosed place. [Glaucón] [Yes], he said, if the race of the guardians is to remain pure’. The difference is not important to Philoponus’ argument.

51. 461B-C.

52. 320,10-13.

53. *Iliad* 12.166-70.

54. *Iliad* 9.323-4.

55. Deleting *pros tou* and adding *tous* after *hêrôôn* at 323,12, as suggested by Rabe.

56. *Iliad* 17.133-7.

57. I would punctuate the Greek with question marks after *agriôteron* at 324,1 and *asebeian* at 324,4.

58. Deleting *kai* before *proteron* at 324,16, as suggested by Rabe.

59. *Andromache* 468-70.

60. A widow or a widower was for the Greeks, as for us, someone who had lost a spouse rather than someone who was excluded from all sexual activity, so Philoponus' argument is only valid if he thinks of all of the guardians as being involved in a single communal marriage, which I doubt. Perhaps he should have argued that the absence of arrangements for widows and widowers shows that there is no marriage in Plato's state.

61. 457B-D; the speakers are Socrates, who recounts the conversation, and Glaucon.

62. 463E-464A.

63. 464A.

64. 464B-D.

65. There is clearly something wrong with the text of the last part of this sentence (Rabe writes 'haec vix sana') and a comparison with *Rep.* 464C-D, on which it is based, suggests that several words may have dropped out. I have, without much conviction, supplied *hêlkonta* after *paidas* at 326,26 (cf. *Rep.* 464C).

66. As Rabe indicates in the critical apparatus, there are a number of difficulties with this sentence. I have accepted his suggested addition of *gignôskoî de* after *homilian* at 328,14, deleted *hôs* at 328,13 (Rabe writes '*tis hôs suspecta*'), transposed *hekastos* and *hôs* at 328,15 (cf. *suneisin hekastos* at 329,6-7), changed *ou têi* at 328,17 to *têi autêi ou* (cf. 329,6) and deleted *kai tèn polin kai tous arkhontas* at 328,18, which I suspect is a (misguided) marginal gloss on *panta* which has found its way into the text (Rabe suggests emending to *pantapasi tèn polin pros tous arkhontas*, comparing 328,26ff. and 329,7ff.). This of course amounts to a fairly extensive rewriting of the transmitted text and all that I would claim for it is that it produces something like the required sense.

67. The manuscripts have *tês hamartias tês epi têi dia tês mixeôs êleutherôtai*, which cannot be right. Rabe writes '*epi têi <miansei têi> dia vel tale quid*' in the critical apparatus, but I am more inclined to think that *epi têi* is a marginal gloss on *dia tês* that has intruded into the text and have translated accordingly.

68. More literally, 'assuming generations of gods'.

69. When, as they usually do in *Aet.*, they imply 'pagan', I translate *Hellênikos* 'Hellenic' and *Hellên* 'Hellene' rather than (in both cases) 'Greek'. (For my reasons, see my translation of *Aet.* 1-5, 100, n. 130.)

70. *Epist.* 5.322A-B. Many, but by no means all (cf. the table in Guthrie, *A History of Greek Philosophy*, vol. 5, 401), scholars believe this letter is a forgery.

71. i.e. by other Christian writers.

72. Philoponus returns to these themes again at 631,25ff. and 640,1ff., in the latter passage placing more emphasis on cases where Plato rejects the traditional stories. These passages are discussed by Wilberding in the introduction to his translation of *Aet.* 12-18 (6-7).

73. 'He says' is Philoponus' addition.

74. 313,7-8 and 14-17, with minor variations.

75. *Tim.* 28A-C.

76. Rabe (perhaps rightly) suggests actually adding *genêton kai phtharton einai*

(‘are generated and perishable’) or the like after *onta* at 333,10 rather than just ‘understanding’ an appropriate phrase as I have.

77. 237,15-20.

78. The same triad appears at 242,6 and 628,25.

79. Changing *ametylêton* to *metablêton* at 333,22.

80. Or: ‘and absolutely everything will be unchanging’.

81. More literally something like ‘in respect of the whole of it’.

82. *akribês* / *akribôs*, which are usually translated ‘exact(ly)’, ‘accurate(ly)’, ‘precise(ly)’, often (cf. 396,23; 447,25; 448,1.14; 454,24) seem to amount to ‘in detail’, ‘at greater length’ in Philoponus and I have translated accordingly; cf. LSJ’s rendering of *di’akrubeias* as ‘with minuteness’ and its contrasting of *akribôs* with *tupôi* (‘in outline’, ‘roughly’).

83. 202,5-203,19.

84. 313,7-8.

85. 302,26-303,1.

86. cf. the similar statements at 303,2-4 above and at *in GC* 99,15, *in DA* 469,15 and *in Phys.* 188,2, and, in Proclus, at *in Alc.* 317,11-12 and *in Tim.* 2.28,22-3.

87. The positioning of *hoson* ... *astheneiâi* (‘as far as weakness of power goes’) after *tên* strikes me as odd and I suspect that it may be a gloss on *kakian* (‘evil’). For the ‘route towards the [condition] contrary to [its] nature’ cf. 279,24-6.

88. 128,1-132,28.

89. 313,17-22, with minor variants.

90. 313,7-17.

91. 313,17-314,15.

92. On ‘well-arranged’ and ‘disarray’ as translations of *kekosmêmenon* and *akosmia* see the note at 314,3.

93. 336,22-337,1.

94. Since this echoes the wording of the previous sentence, we would, as Rabe points out, expect ‘cause’ (*aition*) rather than ‘contributory cause’ (*sunaition*) here, and there is a case for emendation.

95. Or perhaps ‘... once it is demonstrated that the contrary to [its] nature, or the cause of its destruction, exists for the cosmos too, then, on Proclus’ assumption, the contributory cause of its generation also exists’.

96. On creation out of nothing, see Sorabji, *Time, Creation and the Continuum*, 245-9 and other passages listed in the index under ‘Nothing, creation out of’. Its possibility was indeed denied by most pagan philosophers, but there were, at least apparent, exceptions, just as there were Christians who did not accept it.

97. Neither this ‘he says’ nor the one in line 25 are part of the quotation.

98. 314,12-15; the two ‘he says’ are Philoponus’ additions.

99. Philoponus’ rebuttal in fact takes up the rest of the chapter (cf. 380,10ff.). Because Proclus treats ‘nothing comes from nothing’ as an axiom, Philoponus has to state both sides of the case himself (this is particularly clear at 339,19-24), and the *pro* case is given to a series of unnamed or imaginary opponents variously identified as ‘someone’ (365,15, 367,1, etc.), ‘they’ (*passim*) or ‘he’ (365,12 and perhaps – see the note there – 359,17).

100. The idea that the male sperm contributes the form in generation and the menses the matter is developed by Aristotle in *GA* 1-2.3. It is also referred to at 409,27-8, 432,11-16, 449,27-8 and 501,3ff.

101. Changing the second instance of *genêton* at 339,12 to *agenêton*.

102. cf. 93,14-94,13 (which shows that Philoponus has *Tim.* 41A-D in mind).

103. Literally 'from without', which presumably means something like 'not already present'.

104. It is not easy to work out and consistently apply a set of renderings for the various shades of meaning of *ousia* (a verbal noun from the verb 'to be'), as a comparison of a selection of translations of Greek philosophical texts will show. I have restricted myself for the most part to 'substance' (mostly, but not always, used of individual beings or things and their species) and 'being', although 'essence' would often have worked well, usually as an alternative for 'being'.

105. 'Incomparable' would be more literal than 'incomparably greater' but the comparison is implied by the context.

106. cf. the note on the similar phrase at 315,19.

107. 340,23-4.

108. This principle also underlies the arguments at 393,19-395,5 and 494,12-512,16.

109. 202,2-18 (especially 10-11).

110. 'Therefore' because if the Neoplatonists can validly argue from the parts to the whole so can Philoponus.

111. Or perhaps 'principle'. For this use of *apoklêrôsis* see Lampe, s.v. 4, and cf. 504,22-5.

112. The standard Neoplatonic position of course, visible in, for example, Proclus' third proof.

113. Another possible rendering would be '*ipso facto*'.

114. More literally something like, 'as a whole in respect of the whole of it'. The phrase and its shorter variant *kath' holon auto*, which I translate in the same way, both occur frequently in *Aet*.

115. Punctuating with a semicolon after *hekaston* at 343,18.

116. sc. analogously with the different movements of the parts of the universe and the universe as a whole in lines 7-9.

117. Because the universe does *not* move as a whole but *has* come to be as a whole.

118. Changing *ginesthai* to *analuesthai* at 344,3, as suggested by Rabe.

119. *eis to pantêi mê on*, apparently a stylistically motivated alternative to *eis to mêdamôs mêdamêi on* ('into absolute non-existence').

120. cf. 228,5-8; the same simile is used in relation to the totality of the elements at 202,18-25 and 502,24-503,7. (Cf. too what Plutarch has to say about the philosophers and the famous, continually restored, ship of Theseus at *Life of Theseus*, 23,1.)

121. Rabe, rightly I think, writes '*de suspectum*', but its presence or absence scarcely affects the sense and my translation doesn't reproduce the construction of the relevant part of the Greek anyway.

122. For the translation of *huphistasthai* here and in line 25 see the note at 365,13.

123. It is a premise of his eleventh argument.

124. 192a25-34 (especially 27-9).

125. cf. especially IX.3.

126. The reference is probably to 340,25-341,4.

127. The long parenthesis that follows (which ends at 246,11) gives reasons that could be adduced for the view (which is not, as becomes clear in Ch. XI, Philoponus' own) that the substrate, or matter, neither comes to be nor perishes.

128. *logos* can reasonably be translated 'definition' in contexts like this, but because the commentators tell us (Philoponus himself at *in Cat.* 19,22-20,3) that

logos embraces both *horismos* (definition) and *hupographê* (description), translators often choose a different rendering. The two most popular choices are 'account' and 'formula' and I have opted for the former.

129. sc. 'none of them conformed to the account (or definition) of a thing of its kind'.

130. This is in fact the generally accepted position (cf. De Haas, *John Philoponus' New Definition of Prime Matter*, 13, n. 50), going back to Aristotle (cf. *Metaph.* 1044b21-2), and is stated without supporting arguments by Philoponus himself at *in Phys.* 838,6-9 and argued for by Proclus in his commentary on the *Timaeus* in a passage which Philoponus cites at 364,11-365,3 below.

131. *Hellênôn paides* (348,12-13). Literally 'the children of the Hellenes', but the phrase is merely periphrastic for 'the Hellenes'. (For the usage see LSJ *pais* I.3.)

132. I would like *en hêmin* to mean 'among us' (sc. 'in our region'), but I think it has to mean 'in us' (sc. 'in our bodies'), as it has to in similar contexts at 384,4 below and at *in Phys.* 438,23.

133. The long series of arguments that follows (348,24-365,3) for the position that enmattered forms are 'resolved into absolute non-being' when they cease to exist seems, in part at least, to be inspired by the passage from the lost portion of Proclus' commentary on the *Timaeus* that Philoponus quotes at 364,11-365,3 below.

134. More literally, 'changing into the nature of forms'.

135. *hê men gar hulê heneka tou, to de eidos hou heneka*. Another possible rendering would be: 'For matter [exists] for the sake of something else, and form [is that] for the sake of which [it exists]'. Both the language (an instance of the so-called 'metaphysic of prepositions', for which see Hankinson, *Cause and Explanation in Ancient Greek Thought*, 338) and the thought are Aristotelian; cf., for example, *Phys.* 198b1ff. (Although the argument there is very different, the philosophical terminology of the present paragraph is echoed by that of Proclus' eleventh argument.)

136. Omitting *ê ouk eisin* at 349,13.

137. Here, and frequently elsewhere in *Aet.*, 'material(s)' would be a more natural rendering of *hulê*, but that would involve continual, and sometimes confusing, switching between 'matter' and 'material' and, despite some awkwardness, I have opted for 'matter' throughout.

138. Changing *ekhei* to *ekhoi* at 351,3; in the apparatus Rabe writes 'fort. *ekhoi*' and in the grammatical index comes out in favour of correcting all such cases of the present indicative with *an*.

139. Again, more literally, 'changing into the nature of forms'.

140. *DA* 429b31-430a2.

141. Changing *sôizomenou* at 352,25 to *sôizomenon* (cf. *sôizomena* at 353,1).

142. Changing *oukhi* at 353,4 to *oukh hê*, as suggested by Rabe.

143. The phrase *tên analusin poieisthai* ('break up'), which also occurs in the next line and at 354,10 and 359,5, is equivalent to the middle voice of the verb *analuein* and an alternative rendering would be 'resolve themselves'.

144. In common with many other verbal adjectives, *meristos* can either mean much the same as the perfect passive participle ('partitioned', 'divided') or express possibility ('partible', 'divisible') and, although I have consistently construed it in the latter sense, there are passages where the former would be at least as appropriate. I have preferred 'partible' to 'divisible', the more common rendering and the choice of LSJ, to bring out the connection with *meros* ('part') and cognate words, which frequently appear in the same context.

145. 411b5-30.

146. Adding *ê auxêtikês* after *threptikês* at 354,28.

147. 354,24-8.

148. Punctuating with a full stop after *estai* at 355,11.

149. Repositioning the words *legô ... tinos* (355,24-5) to follow *sômatos* at 355,22, as suggested by Rabe.

150. Presumably the totalities of the four elements and the planets.

151. 351,27-353,23.

152. Or 'essence'.

153. 345,26-346,16.

154. What follows is based on *Phaedo* 70D-71B and 102E-103C. Socrates argues that opposites are generated from opposites at 70D-71B and that one opposite cannot change into the other at 102E-103A; the interjector raises his objection at 103A; Socrates replies at 103A-C.

155. 'Homonymously' because both whiteness and blackness and a white body and a black body may be described as pairs of opposites but not in the same sense. (In Aristotelian usage things rather than words are homonymous and two things are homonymous if the same word can be used of both but not in the same sense.)

156. More literally, 'nor, again, can one form become what another form [is] ...'.

157. Changing *khôrista* to *akhôrista* at 359,8; the continuation shows that the reference is to the unmattered forms rather than to the intelligibles as a copyist presumably thought.

158. The verbs in this long protasis are a strange mixture of indicatives and subjunctives and, as Rabe indicates, there is a case for regularising them. However, revision would not affect the translation.

159. Either the authorial plural or equivalent to 'from us Christians'.

160. The tense of the verb (imperfect) and the apparently circumstantial detail combine to suggest that Philoponus is referring to two or more exchanges between himself (or himself and other Christians) and an unnamed person. Verrycken (*The Development of Philoponus' Thought and its Chronology*, 261, n. 181) suggests that this person was Philoponus' master Ammonius and that the exchanges took place in a teaching context. Philoponus, he argues, is trying to assure his Christian readers that he had opposed eternalism even while still a pupil of Ammonius. He does not mention Ammonius by name (either here or elsewhere in *Aet.*) because it would be imprudent to draw attention to the relationship (or more probably, I would suggest, because he draws the line at attacking his former master openly) but he could assume that his readers would be able to make the identification. Alternatively, we could assume that we are dealing with a present unreal conditional sentence from which the particle *an* has been either omitted or lost (some passages in *Aet.* where an expected *an* is not present are listed in Rabe's grammatical index, but there are plenty of others, some of them, such as 407,5-7 and 431,28ff., providing closer parallels; cf. too in *Phys.* 19,29-30) and that the sentence actually introduces another version of the hypothetical interlocutor(s) that Philoponus has been debating since Section 8 (on these cf. the note at 339,2). In fact, the continuation rather favours this reading. When Philoponus turns to the refutation of the argument of his unnamed opponent, he begins with the words: 'We, for our part, in setting out to refute what is plausible in this argument, have made the initial assumption (*proeilêphamen*) ...'. The tense of *proeilêphamen* ('we have made the initial assumption') is appropriate to a response to such a hypothetical interlocutor, but scarcely so in a report of a debate from long ago. Also, it is natural to assume that the subject of *phêsi* ('he says') at the beginning of Section

12 is the same as that of the present sentence and it is difficult to believe that we are dealing with anything other than a hypothetical interlocutor there. Finally, in a similar passage at the beginning of Section 17 ('pressed by these arguments, some claim that generation is of neither matter nor of form ...'), we are, I think, again dealing with purely hypothetical opponents.

161. *phêsin* ('he says') is on the face of it a little awkward on any reading of the previous sentence. However, *phêsin* is often used rather loosely when it introduces a quotation or paraphrase and perhaps that is the case here. Also, note that, although I have retained Rabe's quotation marks, the passage that follows cannot be a genuine quotation on either of the hypotheses canvassed in the previous note – as indeed *toiouton tina logon* ('something along these lines') at 359,17 and *toiouta* ('the sort of thing') at 360,9 confirm.

162. Essentially an application of the explanation of generation and perishing in general that Philoponus (and presumably therefore Ammonius) at *in Phys.* 172,25-174,12 and 181,14-23 and Simplicius at *in Phys.* 241,1-18 read (basically correctly) into Aristotle, *Phys.* 191b27-9.

163. Deleting *sôma* at 360,20.

164. Reading *êtoi* for *eita* at 361,5 (cf. Rabe's note in the critical apparatus) and *ê* for the first *hê* at 361,6.

165. Rabe suggests emending to *einai* <*idean te kai*> *energeian* (which would give 'for the form and actuality of whiteness'), but I think the transmitted text is tolerable.

166. Or 'in number'.

167. Or 'in species'.

168. He probably has in mind the whole series of arguments from 348,24 to 359,14 rather than just 356,21ff., as Rabe suggests.

169. Deleting one of the two instances of *autên* at 363,12, as suggested by Rabe.

170. Since he has argued at 345,12-347,10 that it is only form that comes to be and perishes.

171. 349,5-7.

172. For an explanation of this rendering of *huphistasthai* here and later in the section see the note at 365,13.

173. sc. the enmattered forms; the transition from the singular to the plural is a little abrupt.

174. Literally 'in themselves', in contrast to *enula* (enmattered, or 'in matter').

175. See Wilberding's note at 471,5.

176. Literally, 'seat'.

177. *in Tim.* 3,357-8 (Diehl). The quotation, which is from the lost part of Proclus' commentary, is taken from a discussion of the phrase *ta eisionta kai exionta* ('things that pass in and out') at *Tim.* 50C and part of it is translated and discussed by Cornford (*Plato's Cosmology*, 183-4). I cannot make satisfactory sense of the last part of the final sentence (365,1-3) as it stands; the best I can do is something like 'for it is not the case that this whole [universe] continues in existence because matter lasts for ever, but [that] only form, which subsists without generation and passes away without destruction, does', which is almost the opposite of the required sense. I suspect that Proclus wrote something like *ou gar holon touto hupomenei, monês tês hulês aei menousês, alla tou eidous khôris geneseôs huphistamenou kai khôris phthoras apollumenou*, and that is what I have translated. As mentioned in the note at 348,24 above, Philoponus' own arguments for the position that enmattered forms are 'resolved into absolute non-being' when they cease to exist seem to be inspired by this passage.

178. Or perhaps 'repute'.

179. Most literally 'clarity'. Another possibility would be 'self-evidence'.

180. Presumably a hypothetical opponent (cf. the note at 359,17). For the orthodoxy of the position, see the note at 347,22.

181. One would normally, and could at a pinch here, render *huphistasthai* 'subsist' or 'exist', but it is clear (and becomes more so later) that Philoponus is discussing the way in which forms *come to be* present in a substrate rather than the way in which they *are* present, so I have assumed that we are dealing with what one might call an 'inceptive' usage of the present tense (presumably the result of a perceived need, or at least a desire, to avoid *ginesthai*) and translated 'come into existence' or (when the 'perfection' of form or matter is involved) 'occur', in this and the next three sections. Some other passages in *Aet.* where *huphistasthai* is used in much the same way are 206,27 (observe that *ginesthai* rather than *huphistasthai* is the verb used in the passage referred to in the following line); 268,10; 344,19,25; 364,9.

182. At 365,2-3.

183. This is in fact pretty much what Proclus says at 404,8ff., and the serviceability, or otherwise, of matter is also an important issue in his 12th and 14th arguments.

184. The (unexpressed) 'in the second place' is at 369,1.

185. *Tim.* 28B.

186. I have been translating *akhronôs* 'instantaneously' but to do so here would obscure the point of the sentence.

187. The plural *ek mê ontôn* ('from things without being') is a little odd. One would expect *ek mêontos* ('out of non-being'), as in line 9 below and elsewhere. However, cf. the similar phrases in lines 17 and 21 below.

188. See especially Sections 10-15.

189. At 367,4-5.

190. And does not come to be *tout court*.

191. As passages such as 356,19 and 457,26 show, the phrase *logos tês phuseôs* (account of nature), which occurs frequently in *Aet.*, is equivalent to *logos tês ousias* (account of being), which goes back to Aristotle, *Cat.* 1a2.

192. 404,8-14.

193. More literally, 'the not yet existing matter'. (For my reasons for preferring 'matter' to 'material' in contexts like this, see the note at 349,17.)

194. Both this 'he says' and the one later in the quotation are added by Philoponus.

195. sc. without the lapse of time.

196. Changing *peri* to *epi* at 370,9, as suggested by Rabe, and deleting *ho* at 370,10.

197. Adding *oikias ê tês* after *tês* at 370,20, as suggested by Rabe.

198. *Tim.* 41C.

199. In fact a favourite phrase of Aristotle's, occurring, with minor variations, at *Phys.* 194b13; 198a27; *PA* 640a25; 646a34; *Metaph.* 1032a25; 1033b32; 1070a8; 1070a28; 1070b34; 1092a16; *EE* 1225b17.

200. 369,9-11.

201. At 369,25-9.

202. Aristotle doesn't, as far as I can see, state this explicitly, but Philoponus obviously believes that it is implied at *DA* 412b6-9 (see in *DA* 218,13-219,3, especially 218,27-9.)

203. Perhaps *bathron* (373,29) is meant to fix the meaning of *kathedra*

(373,27.29) as 'base', 'pedestal' (in which case I would translate *kathedra* 'base' and *bathron* 'pedestal'), but *kathedra* seems to mean 'seat' at 453,14.16 in a very similar context, so I have assumed that *bathron* adds another possible use for a single block of stone.

204. Omitting *touto* at 374,2. (Rabe writes '*touto* suspectum' in the critical apparatus.)

205. Changing *auto* at 374,8 to *en autôi*.

206. Changing *hêi zôion kai hêi aisthêsis* at 374,24-5 to *hê zôê kai hê aisthêsis* (cf. 369,12). (Rabe writes 'haec vix sana' in the critical apparatus.)

207. 369,9-12.

208. 'Material' would be better (as frequently in what follows), but see the note at 349,17.

209. *phusis* (here translated 'substance') is, I think, a stylistic variant for *eidos* ('form').

210. 375,7-11.

211. 'Since' because this explains the origin of the 'chylified food' in the previous clause.

212. Literally 'of the nature of drugs', but the phrase seems, as similar phrases often are, to be merely periphrastic.

213. Closing the parenthesis after *loipa* in 376,1 rather than after *apotelesma* in 376,2 as Rabe does.

214. At *in Phys.*, 232,1-6 (in a passage where the 'traditional' view of prime matter is still accepted) Philoponus gives the following hierarchy of matters for the human body: (1) heterogeneous parts [sc. limbs, major organs, etc.] (2) homogeneous parts [sc. blood, bone, etc.; mentioned at 374,21 above] (3) the humours [sc. black bile, blood, phlegm, yellow bile; cf. *in An. Pr.* 417,9-10] (4) the four elements (5) the three-dimensionally extended (6) prime matter. At 426,15-18 below we are further told that the heterogeneous parts, or the body, which is composed of them, provides matter for the vital functions.

215. Or perhaps 'every art and nature [too]', but cf. 'the creating nature in each part' in the previous sentence.

216. Changing *epei d', an tis kai pros toutois hôs malista menei, dedeiktai to eipoi d'an tis kai pros toutois malista men hôs ei dedeiktai* at 377,18-19. (Rabe writes 'haec vix sana' in the critical apparatus.) The reference of 'it has been shown' is to 345,12-21.

217. As Rabe remarks, we would expect *mête eidos* ('nor form') rather than *mêde to eidos* ('nor yet the form'), but the latter is tolerable.

218. Aristotle attributes such a position (whether held explicitly or implicitly) to pluralists like Empedocles, Anaxagoras and the Atomists at *GC* 1.1, 314b4-8 (where the same passage from Empedocles' poem *On Nature* is cited as evidence of his commitment to it); he refutes it, in general terms but with an eye to the Atomists in particular, at 1.2, 315b15-317a31; and he criticises aspects of what he takes to be Empedocles' particular version of it at 1.8, 325b15-25, 2.6, 333b3-22 (where the passage from Empedocles is cited again in a slightly different form), and at 2.7, 334a26-b2.

There has been disagreement since antiquity as to whether the word *phusis* means (1) 'permanent nature', 'constitution' or (2) 'birth', 'generation' in the quotation from Empedocles. Aristotle seems to understand it in the latter sense in *GC* 1.1 but in the former at *Metaph.* 1014b36 and possibly (by implication) in *GC* 2.6 (cf. Williams' note on the passage). Philoponus clearly opts for 'permanent nature' both here and (quite explicitly) in his commentary on *GC* (14,15-17;

264,13-14). (For a discussion and some references see Guthrie, *A History of Greek Philosophy*, vol. 2, 140, n. 1.)

219. Changing *suntheseôs* to *sunthetou* at 378,25.

220. Deleting *hama* at 379,23, which looks like a gloss intended to disambiguate *kata tauton* which has found its way into the text. (Rabe suggests adding *kai* after *hama* but, although the phrase *hama kai kata tauton* is common in Philoponus, it normally means something like 'at the same time and in the same respect [or place]', which doesn't seem appropriate here.)

221. As often, the explanatory clause only relates to the last statement in the preceding sentence, sc. that 'perishing is dissolution back into absolute non-being'.

222. A more literal rendering of the last part of the sentence would be: 'so that (*hina* expressing consequence rather than purpose), shunning its consequences as impossibilities, we would be compelled to say that it is ungenerated'. (Rabe doubts the soundness of 380,16-17.)

223. I normally translate *oikeios* 'own' but use 'proper' in a few passages where that works better. 'Another's' would often work for its opposite *allotrios*, but with some hesitation I have settled on 'alien'.

224. Earth, water, air.

225. Fire.

226. With lines 20-3 cf. Proclus, in *Tim.* 2.11,27ff., where Proclus supports this view of the motion of the elements against Aristotle, who held that the natural movement of all four is rectilinear. On the rather complex nature of their disagreement, see Baltzly's notes *ad loc.* (For a good brief summary of the rather different views of Plato and Aristotle on the structure of the universe and the causes of motion within it (and of Proclus' and Philoponus' rather different understandings of important aspects of those views), see pp. 1-3 of the introduction to Wilberding's translation of *Aet.* 12-18.)

227. For this translation of *ametabletôs* see the note at 315,5.

228. sc. here on earth, or, more strictly, here in the sublunary world.

229. sc. none of the main bodies of each of the four elements, which both Proclus and Philoponus normally refer to as *holotêtes* ('totalities').

230. Or perhaps 'is carried'.

231. Still, presumably, referring to each of the elements as a whole, since this is scarcely true of detached portions of them.

232. Changing *apolipon* (*apolip* [n M]) at 381,11 to *apolipein*. (I cannot extract any satisfactory sense from Rabe's text.)

233. Proclus could now without further ado conclude that the universe is everlasting, but it turns out that the present argument is actually designed to show that it is everlasting even on the hypothesis that the current world-order (*kosmos*) had a beginning and that the main purpose of these first two paragraphs is to lay down the premises he will use in the rest of the argument.

234. Proclus speaks throughout as though he accepts the hypothesis that the current world-order had a beginning, but he actually believed that talk of such a beginning in the *Timaeus* was just an expository device and it seems likely that (contrary to appearances) he is merely pointing to implications, as he would claim, of his opponents' hypothesis. (As elsewhere in Proclus' proofs, these opponents are likely to be Plutarch and Atticus.)

235. The argument from here to 382,11 takes the form of a multi-part *reductio* designed to show that order and natural place were already features of the universe before the assumed advent of the current world-order.

236. In view of the following clause ('they either remained stationary or moved

in a circle'), it is tempting to translate 'each [element]', but Proclus avoids the word 'element' in the remainder of the argument, presumably because the elements did not exist as such prior to the ordering that is being hypothesised, so I shall too.

237. My choice of 'put' is governed by the following 'in', but the verb, like the cognate noun *metathesis* ('change of position') in line 23, implies a repositioning, on the face of it (as Philoponus sees and exploits) from previously occupied natural places. This is awkward, since in this section of the argument the hypothesis seems to be that things were *always* in 'alien' places prior to the ordering of the universe. Perhaps all that Proclus means to convey is that things were placed in alien places *instead* of in their natural places.

238. I supply present forms of the verb 'to be' in this and the next sentence on the assumption that one of these principals operates before the ordering of the universe, the other after it. If, after all, they are both supposed to operate before the ordering, I would have to supply past forms.

239. An *arkhê* is a beginning or origin in any sense, temporal or otherwise, and is often, as here, almost synonymous with *aition* (cause).

240. cf. *Cael.* 286a19-20.

241. sc. the unnatural places in which the elements have *ex hypothesi* always been located; for their priority, cf. 381,24-5.

242. The sentence is difficult and I'm not at all sure I've got it right. (Lang and Macro, *On the Eternity of the World*, take a quite different view of it.)

243. Removing the comma after *mê* in 382,6; *ei de mê ontôn allôn oikeiôn* looks back to *ei men ontôn autois tôn kata phusin topôn allôn* at 381,20-1 (and incidentally confirms Rabe's supplement there).

244. sc. before the ordering.

245. More literally, 'those things', 'things there'.

246. More literally, 'of such a kind'. Aristotle frequently uses the word to refer to items in the category of quality. (Rabe doubts the soundness of 382,14-15.)

247. This last sentence strikes me as awkward for the view that Proclus is merely examining the implications of a hypothesis that is not his own. Perhaps it was written tongue in cheek.

248. *thei* ('runs', 'races'), which is, as the vetter points out, both archaic (in fact, someone felt the need to gloss it with *trekhei* in the margin of the main manuscript) and at first glance rather inappropriate, seems (like *êpeigeto* at 388,1) to be Philoponus' gloss on Proclus' *speudein* ('hasten', 'rush') at 380,23 and 381,8.

249. Adding *hê* before *eirêmenê* at 384,9, as suggested by Rabe.

250. Changing to *dekaton* to *ho dekatos* at 384,19-20, as suggested by Rabe.

251. 384,23-386,5 constitute a single *reductio* the steps of which I have tried to bring out through the paragraphing.

252. cf. 381,6-8.

253. Omitting *ho* at 384,25. (Rabe writes '*ho suspectum*'.)

254. Omitting *mê* at 385,1.

255. sc. the original proposition that 'all things that change change when in an alien place'.

256. The object of this first paragraph has been to derive this last proposition, which is the one he wants to attack, from the opening sentence of the paragraph.

257. 289,4.

258. 'the whole of its natural place' would be more natural.

259. 381,6-8.

260. 380,22-3, but there in the singular.

261. 381,19-20, with minor adjustments.

262. Part paraphrase, part quotation of 381,24-382,3. (*pollôi proteron* looks rather like a deliberate misinterpretation of *proteron*, which is correctly interpreted at 388,12ff.)

263. Changing *legein* to *lêmmatôn* at 387,25, as suggested by Rabe.

264. More literally something like 'that the place of all water, that very place is also ...' (and similarly at 387,27 and 388,3).

265. Adding *oikeios* after *estin* at 388,4, one of two possible corrections suggested by Rabe. Another possibility, suggested by the vetter, would be to delete *kai kata phusin* as a mistaken repetition from the previous line and translate 'It has, then, been shown that the proper and natural place of the element as a whole is also that of the part.'

266. 382,2-3.

267. Changing *ametylêtôs* to *ametylêtôn* at 389,1, as suggested by Rabe.

268. More literally, 'the clarity itself of the facts'; same phrase at 415,12, 435,3 and 449,13.

269. 380,23-4; there in the singular.

270. Or perhaps 'better' and 'best' (which are at a pinch possible for *kalliôn* and *kallistos*) rather than 'more beautiful' and 'most beautiful', since Philoponus says that it is *better* (which seems more appropriate than 'more beautiful') not to exist than to be in an unnatural state at 289,24-6 above and Aristotle (the originator of such statements), normally has nature choose 'the better' or 'the best' (*beltion*, *beltiston*) rather than the most beautiful (see, for example, *Cael.* 288a2-3, *GC* 336b27-9, *Phys.* 259a10-12). Note, however, that Philoponus also uses *kalos* in a similarly constructed passage at *in Phys.* 135,12-16 where 'beautiful' seems an appropriate enough rendering.

271. cf. Plato, *Tim.* 30A.

272. 382,4-6.

273. sc. the place.

274. The basic meaning of the verb is 'hurl a javelin', but used of a stone it could cover anything from throwing to catapulting.

275. Rabe, perhaps rightly, suggests emending *ex allou eis allon* ('from one [place] to another') to *ex allotriou eis allotrion* (from one alien [place] to another alien [place]).

276. More literally, 'from the same [place] to the same [place]'.

277. Through argument 390,13-392,5, through induction 390,9-13.

278. One of the senses of 'thunderbolt' in the *New Shorter Oxford English Dictionary* is 'Any of various stones, fossils, or mineral concretions, formerly or popularly believed to be thunderbolts', a thunderbolt being a flash of lightning or 'a supposed bolt or shaft believed to be the destructive agent in a lightning-flash', which would seem to fit well enough here. Philoponus also uses them as evidence of downwards movement from the sphere of fire at *in Phys.* 447,4-5.

279. Although I have retained Rabe's quotation marks, the material they enclose is not quoted from Proclus and in fact there is nothing that corresponds to the statement that 'the parts of the elements are able to change even while remaining in [their] natural places' in Proclus' argument and what he says at 381,6-8 pretty much contradicts it. This being the case, it seems likely that *phêsi* ('he says') actually introduces a possible response to Philoponus' arguments formulated by Philoponus himself and is equivalent to 'he will say', 'he might say' or the like in our usage. (For other passages where *phêsi* is used in a similar manner, see the notes at 359,17 and 339,2.)

280. Adding *ei* after *eiê* at 393,28 and changing *metaballein* at 394,1-2 to *metaballei* as suggested by Rabe.

281. *katholou* and *auto* in line 8 are difficult. One would expect *kath' holon auto* (cf. lines 5-6), and that is what I have translated. Perhaps the corruption (if there is one) is due to the presence of *katholou* in line 10.

282. One would have expected 'totalities'.

283. Although I have translated them, the words *ginomenon te kai phtheiromenon* ('as it comes to be and perishes') at 394,28-9 do not fit very well into the structure of the sentence (one would expect *ê ginomenon ê phtheiromenon*; cf. the pattern of the connectives in the similar list at 389,25-6) and I suspect they may be a marginal gloss (perhaps, though not very perceptively, on *houtô kai ... hupomenei* – 'so too does the animal as a whole undergo the same [changes]' – at 394,29-395,1) which has found its way into the text. (The question of the generation and destruction of the parts of the cosmos will then be dealt with *via* the reference to 201,26ff. at 395,1.) For other possible interpolations involving similar phrases (*phthora te kai genesis* and *genesis te kai phthora*), see the notes at 396,6 and 15.

284. 201,26-203,2, where he argues that both the 'parts' of the elements and their 'totalities' are subject to generation and destruction.

285. sc. principal and controlling.

286. More literally, 'responsible for holding together'.

287. Presumably at 395,15-16 and 19-23.

288. *phthora te kai genesis* ('[their] destruction and generation') at 396,6 may in fact be a gloss on *tropê kai alloiôsis* in the same line, or better (although one would then expect the accusative) on *ta auta* in the next line. For other possible (and similar) glosses see the notes at 394,28 and 396,15.

289. *pêsesthai* is a late variant for *peisesthai*; cf. my translation of *Aet.* 6-8, 147, n. 398.

290. Or 'of the universe'.

291. *genesis te kai phthora* ('[their] generation and destruction') at 396,15 looks like another possible gloss (for others, cf. the notes at 394,28 and 396,6), presumably on *metabolê* in the same line.

292. Either in the sense of using them to obscure it or in that of preferring them to it (cf. LSJ, *epiprosthên*, I and II respectively, and for the former the talk of obscuring (*okhlein*) the truth at 400,5).

293. Adding *mê* before *prokekratêmenous* at 396,22, as suggested by the vetter.

294. Almost 'illusion', since Philoponus usually uses the word in a slightly pejorative sense when referring to the views of his opponents.

295. More fully *Against Aristotle on the Eternity of the World*. For this work, which is also foreshadowed at 399,20-4 and 461,1-2, see my translation of *Aet.* 6-8, 132, n. 62. Its fragments have been translated by C. Wildberg in this series.

296. For this 'vital pneuma' see my translation of *Aet.* 6-8, 152, n. 507.

297. *pathê* is not easy to translate; on the one hand it contrasts with 'change of place', which suggests that it is more or less equivalent to *metabolai*, on the other it looks forward to the cuts and abscesses that are inflicted on the heart in the next clause, which suggests a rendering such as 'injuries'.

298. *iatrôn paides* (397,6-7). Literally 'the children of the doctors', but cf. the note at 348,13.

299. Rabe writes '*diaireseôs* suspectum' and it is a little awkward.

300. An *apostêma* can be an opening or interval, or an abscess, and a *phlegmonê* is an inflamed tumour or boil, so the phrase *tôn kata tas phlegmonas apostêmâtôn* should mean something like 'the open wounds associated with abscesses'.

301. *sustasin* ('onset', 'formation') is presumably only meant to apply to the abscesses.

302. Or 'kept straight', 'guided', 'kept on course'.

303. In VI.29 Philoponus argues that the same applies to the cosmos as a whole. (For the phrase 'free of disease and ageless' cf. *Tim.* 33A2.)

304. Adding *ta* after *panta* at 397,21, as suggested by Rabe.

305. *Cael.* 272b20, where Aristotle actually has 'a one-foot line' (*podiaian*) rather than a 'cubit'.

306. More literally, 'for it is the same to talk of an infinite cubit as of an infinite circle'.

307. Aratus, c. 315 to before 240 BC, was the author of an extremely popular poem which included a detailed description of the constellations based on a treatise by Eudoxus. A 'sphere of Aratus' was a mechanical device designed, originally at least, to illustrate the astronomy of the poem; Philoponus also refers to one at *in Phys.* 624,10 and 655,24.

308. Or perhaps, taking the second part of the phrase as exegetical and with a measure of paraphrase, 'the heavens and their contents, or everything with circular motion'.

309. cf. 578,25-6 and Wilberding's note *ad loc.*

310. 398,2ff. (where it is said of circles and spheres).

311. Or perhaps 'fabrication'.

312. Adding *einai* before the second *kuklôi* at 399,19, as suggested by the vetter.

313. These are mainly to be found in *Phys.* 8.7-8, but there is relevant material in other works, notably in *Cael.* and *Metaph.*

314. Presumably in his *Against Aristotle*, for which see the note at 396,24.

315. Changing *zêtêsômen* ('let us ask') to *zêtêsomen* ('we shall ask') at 399,26.

316. Or perhaps 'considerations [contributing] towards the refutation, as far as that has been possible for us, of his arguments'.

317. cf. *okhlêsis* ('obstruction') at *Aet.* 189,21 and 259,5 and my notes there. Other possible translations would be 'importune', 'impede'.

318. cf. *Tim.* 30A2-6.

319. 381,14ff.

320. He does however devote 14.1 to quarrelling with Proclus over his interpretation of this disorderly motion in the fourteenth proof.

321. This looks like a reference to Christian doctrine, if not to the biblical creation account itself, which suggests that *alêtheia* ('truth') in lines 4 and 12 above and later in this section, as often in Philoponus (for other instances, see my translation of *Aet.* 6-8, 130, n. 15), means Christian doctrine.

322. Despite Rabe's doubts, I think the text of 400,19-20 is viable, if somewhat awkward.

323. cf. 381,19-24, where the words 'if, on the one hand, their natural places were different, who moved them into [those] alien places? Being bodies, they were not [themselves] responsible for their' are in fact restored from the present passage and 402,8-10. Although I have placed the whole passage between inverted commas, there are adjustments at the beginning and a (perhaps unintentional) inversion at the end and the 'he says' in line 5 is contributed by Philoponus.

324. 'Strength' would be more natural, but it seems best to keep 'power' for *dunamis* throughout.

325. Strictly speaking, of course, destruction is the opposite of preservation rather than of 'that which preserves'.

326. 382,3-6.

327. 381,20-3, and cited at the beginning of the section.

328. 388,5ff.

329. In addition to the translations mentioned in the Introduction, there is a version by De Haas (*John Philoponus' New Definition of Prime Matter*, 2-3), who also translates a number of passages from Philoponus' response (listed op. cit., 317).

330. sc. Plato.

331. Reading *heneka tou pantôs* (where *tou* is the unaccented enclitic) for *heneka tou pantos* (where *tou* is from the definite article) at 403,15; cf. *pantôs* at 404,14, and note that, although Rabe's text here would translate '[Plato] says that matter exists for the sake of the universe', there is no mention of the universe when Philoponus paraphrases this passage at 445,28ff.

332. On 'for the sake of something' and 'for the sake of which', see the note at 349,10.

333. As the construction shows, *phêsin* ('he says') at 403,16 applies to *hupodokhên ... geneseôs* as well as to what precedes it, and I think that it is also meant to cover *to de ... genesis*. The reference must be to *Tim.* 49A, where Plato uses the term *hupodokhê geneseôs* ('recipient of generation'). but says nothing to justify Proclus' claim here. (*hulê* is, of course, an Aristotelian rather than a Platonic term.)

334. It might seem at first sight that the rejected hypothesis is going to be *creatio e nihilo*, but Proclus goes on to contrast *ek tinos aitiâs* with *ek mêdenos*, which suggest that *ek mêdenos* actually means something like 'not out of anything', 'uncaused' and that he may, as elsewhere, be thinking of Plutarch and Atticus, who, as Proclus read them, made matter, along with God, an underived ultimate principle of the universe. (Cf. De Haas, *John Philoponus' New Definition of Prime Matter*, 9; for Proclus and the Neoplatonists, of course, matter, like everything else, is ultimately derived from the One; cf. Proclus, in *Tim.* 1.383,22-387,5 and the passages cited in Runia and Share, *Proclus: Commentary on Plato's Timaeus*, vol. 2, 253, n. 250.)

335. sc. any inevitability; I have construed *ekhei* as a kind of historical present.

336. cf. what follows with Proclus, in *Tim.* 1.395,13-22 (which shows that Proclus probably got the argument from Porphyry).

337. More literally, 'the not yet existing matter'. (For my reasons for preferring 'matter' to 'material' in contexts like this, see the note at 349,17.)

338. As opposed to 'particular' matter. Other possible translation for *haplôs* (which literally means 'simply') in this kind of context are '*simpliciter*', '*tout court*', 'without qualification', 'as such' (the last used by De Haas, *John Philoponus' New Definition of Prime Matter*).

339. Or, if the construction, as it sometimes does in later Greek, expresses consequence rather than purpose, 'so that it has no need of matter'.

340. More literally, 'in the opposite direction'.

341. LSJ's first gloss of *sunêgoria* is 'advocacy of another's cause', which is an appropriate enough description of Philoponus' move here.

342. Often translated 'essential quantity', 'essential quality'; cf. De Haas, *John Philoponus' New Definition of Prime Matter*, 223, who further distinguishes five possible interpretations of the phrases. Such quantities or qualities actually form part of the substance or essence.

343. As pointed out in the Translator's Note, the wording of Simplicius' reference to *Aet.* 11 at in *Cael.* 135,27-31 shows that he had read this section summary, which dates the section summaries back to Philoponus' lifetime and makes it highly likely that he wrote them himself.

344. On the word see my translation of *Aet.* 6-8, 130, n. 13.

345. For this sense cf. Lampe s.v. 5b.

346. Reading *sunkhōroumenois* at 406,17.

347. 345,21-5.

348. cf. *Tim.* 51A.

349. In reality, although many ancient writers read matter into the *Timaeus* (cf. Sorabji, *Matter, Space and Motion*, 33), both the term and the concept originated with Aristotle.

350. This 'initially' (*prōton*) is taken up by the two occurrences of 'next' (*loipon*) at 409,3 and 409,19.

351. Although Philoponus regularly speaks of the 'differentia of the large and the small' (cf. too the differentia 'rational and irrational' in lines 11-12), only one or the other of these can be present at the species level (cf. what he says of 'rational and 'irrational' in lines 17-19) and he can equally well speak of the differentia 'rational' or 'two-footed', as he does at 423,16.

352. This whole paragraph is a single, rather convoluted, sentence in the Greek and I have taken more liberties than usual with the translation to make it a little easier to follow.

353. By putting the names of genera, species and differentia in quotes in this paragraph I don't mean to imply that Philoponus is talking about purely linguistic items.

354. *phusis* ('nature') is, I think, more or less equivalent to *ousia* (being, essence) here; for the equation, see Lampe, *phusis*, C.1.

355. *en huparxei* and *en hupostasei*, both of which can be translated 'in existence', are clearly meant to signify 'in existence in the physical universe' in the present context and a case could be made for rendering both 'in instantiation'.

356. Literally, 'are not in existence' (which amounts, I think, to 'are not physically instantiated'), but the phrase, which (with variations) occurs a number of times in the present paragraph, is rather cumbersome.

357. Or perhaps 'necessarily', and similarly in lines 18, 20 and 23 below.

358. More literally (and somewhat illogically), 'for there is no living creature by itself which is not in every case either rational or irrational'.

359. More literally, 'Indeed, not even "rational animal" can exist on its own which is not in every case "horse" ...' (cf. the similar construction at 17-19 and the note there).

360. Omitting the second *tôn* at 408,24 with **p** (a secondary manuscript) and **t** (the first printed edition).

361. In lines 6-8 above.

362. But *tên tôn stoikheîon phusin* (literally 'the nature of the elements') may be little more than a circumlocution for 'the elements' (for the usage, see LSJ *phusis*, II.5).

363. i.e. if one is present (or absent) so is the other.

364. Including of Philoponus himself in the commentaries (cf. Sorabji, *Matter, Space and Motion*, 23-5 and De Haas, *John Philoponus' New Definition of Prime Matter*, 31-6), and so presumably of Ammonius and his school.

365. I'm not really sure how to translate *pros tēi hulēi*. I have opted for 'close to' (sc. similar to), which I would take to mean that the three-dimensional plays much the same role as prime matter in the physics of most Stoics, because at 414,1-5 they are said to agree with Philoponus in holding that it is the three-dimensional that is 'the first substrate of all things and matter plain and simple'. (Although he doesn't translate it, De Haas presumably construes the sentence in some such

sense; cf. *John Philoponus' New Definition of Prime Matter*, 22; 40, n. 137; 91, n. 130; 114.) However, at this point Philoponus should be listing the proponents of the views he has just outlined rather than supporters of his own position, which he is yet to divulge, and perhaps one should translate: 'And most of those from the Stoa, in addition to matter, postulated the existence of the three-dimensional', which would put them in at least partial agreement with the scheme that has just been outlined. This, of course, would create a contradiction between this passage and the later one, but perhaps Philoponus has merely overlooked the need to write something like 'some of the Stoics' at 414,4, just as he writes 'most of those from the Stoa' here.

366. i.e. it meets the account (or definition) of bronze throughout.

367. My preferred rendering of *metabolê* is 'change' but I sometimes resort to 'transformation' when 'change' strikes me as awkward.

368. The verb should presumably, as Rabe suggests, be corrected from the indicative to the optative.

369. cf. 410,6.

370. At 410,8.

371. cf. in *GC* 8,29-31; 211,32-212,2; in *Phys.* 155,25-6, which suggest that the picture is that of a stable centre or base 'around' which change takes place. In *Aet.*, *peri* recurs in similar contexts at 413,5, 429,3.6.9.17, 430,26, 436,13 and 441,20.

372. Reading *hormômenos* at 412,16 with **p** (a secondary manuscript) and **t** (the first printed edition).

373. Philoponus is inclined to contrast *asômatos* (incorporeal) with *sôma* (body) rather than with *sômatikos* (corporeal).

374. Changing *hupokeimenon* to *hupomenon* at 413,5. (Rabe, who aptly compares 413,18-19 and 414,18, suggests reading *hupokeimenon* <*auto hupomenon*> *ametablêton*.)

375. sc. not three-dimensional.

376. Restoring *peposôtai* rather than *pepoiôtai* (Rabe) at 413,26; for both the form and the sense, cf. in *GC* 105,31-2.

377. On this phrase, see the note at 389,28.

378. Rabe, citing 418,17-18, suggests changing to *einai sôma hestatai* at 415,14-15 to *tou einai sôma existatai*, which would give '(i.e. does not leave off being body)', which comes to the same thing.

379. More literally, 'bodies become larger after being smaller'.

380. No single rendering works well for every occurrence of *onkos* and I have at different times used 'bulk', 'volume', 'expanse', 'mass' and even (once each) 'distension' and 'size'.

381. *pithoi* were normally earthenware, but since it turns out that these can expand, perhaps they are the wooden kind referred to in LSJ.

382. 408,4ff.

383. Which amounts to saying that body remains body throughout. (I would like to translate *logos* 'structure', but passages such as 424,21-3 and 457,26-7 show that 'account' is the appropriate rendering.)

384. We would probably say something like 'lose' or 'shed'.

385. sc. *qua* three-dimensional.

386. We would say 'a change of size'.

387. More literally, 'the change with respect to the large and small'.

388. Just 'after having changed' would be more logical. Perhaps the intended sense is something like 'after it has changed as compared to before it changed'.

389. cf. 418,4 (with note there) and 424,23.

390. Or perhaps '[someone] might raise' (cf. 393,19 and the note there).

391. sc. belongs to the category of substance; 'bodies are substances' would be easier.

392. Equivalent, I think, to 'the thing that is body', 'the entity "body" '.

393. The next 17 lines (423,15-424,4) are technically a digression.

394. 3b19-20.

395. He gives the same explanation at *in Cat.* 73,18-21.

396. Philoponus is a little sloppy here and my rendering of this clause involves a certain amount of tidying up.

397. As Rabe saw, one must delete either *aneu thermotêtos* or *khôris thermotêtos* at 423,28-424,1.

398. The writing again seems rather careless and nothing in the Greek quite points in the direction of my supplement.

399. At 425,6 the text reads *ousia ... tou haplôs sômatos* ('substance of body plain and simple') and a case could be made for reading that here and in line 23 below, but the wording of the section summary (at 405,26), which may well, as I argue in the Translator's Note, have been written by Philoponus himself, tells against it.

400. 408,4ff. (and cf. 417,19-20).

401. cf. 418,4 (with note there) and 421,15.

402. sc. the species.

403. A case (which would have the support of *phusikois eidesin* ('physical forms') at 23-4 below) could, I think, be made for emending *sômasin* ('bodies') to *eidesin* ('forms').

404. The second point is introduced at the beginning of the next section.

405. 'Postulate', would, I think, be a little too technical here.

406. For my reasons for preferring 'matter' to 'material' in contexts like this, see the note at 349,17.

407. sc. complex parts, such as the head, the limbs and the major internal organs, as compared to relatively homogeneous tissues such as flesh and blood. (For lines 15-24 in general, cf. the note at 376,19.)

408. For the humours as analogues of the elements, cf. 376,14.

409. Or 'any of the forms of these things', which would fit the argument better but somewhat force the Greek.

410. This sentence suggests that *logos* in this passage is closer to 'principle', as De Haas (*John Philoponus' New Definition of Prime Matter*, 268) in fact renders it, than to 'account', but 445,1-4 below, which looks back to this passage, shows that 'account' is probably the better rendering. (For the equation of form and being (or essence) with account, cf. Aristotle, *Phys.* 194b26-7 and Guthrie's n. 4 to his translation of the passage in *A History of Greek Philosophy*, vol. 6, 224.)

411. At line 13ff.

412. That *pantêi* ('entirely') does indeed modify *aneideon* ('formless') is confirmed by the phrasing at 427,6 and at 406,3 in the section summary.

413. cf. *Tim.* 53Cff.

414. 'Whatever is the last level [possible]' translates *eis auto ... to, eis ho eskhaton*, which is more literally something like 'into the very thing into which [they are analysed] last'. Another possible rendering, which has its attractions, would be 'but physical things must be analysed down to it, the last thing into which [they can be analysed]', where 'it' is the three-dimensional. The passage should be compared with *in Meteor.* 13,33ff., where Philoponus, quoting Alexander, writes: 'Matter in the true sense is that into which bodies are last analysed (*to eis ho*

eskhaton analuetai ta sômata), which is also unchanging, whereas the elements change into one another'.

415. Changing *lalein* to *kalein*, as suggested by Rabe.

416. On the probable connotation of *peri* in contexts like this see the note at 412,6.

417. cf. 407,23-408,6.

418. cf. 428,22-4 and the note there.

419. sc. incorporeal matter.

420. More literally, 'indifferent'.

421. For other 'ladle' arguments in Philoponus see 281,15-21 above, in *DA* 343,33ff. and in *Phys.* 505,22ff., in other commentators, Sorabji, *The Philosophy of the Commentators*, vol. 2, 304-5.

422. Closing the brackets after *prôtês* in line 7 rather than *ginetai* in line 6.

423. Adding *diaphoras* after *allas* at 430,8, as suggested by Rabe.

424. sc. Aristotle's *Physics*; cf. *Phys.* 187b13-21, especially 16-17 and Philoponus' comments *ad loc.* at in *Phys.* 96,26ff.

425. More literally, 'is defined in the direction of the larger and [in that of] the smaller'.

426. These are conceived of as both composite and homogeneous; cf., for instance, in *GC* 13,19ff., and note their place in the hierarchy of matters in the note at 376,19.

427. sc. the form, but Rabe may be right to suspect that Philoponus wrote *autês* rather than *autou*, in which case 'it' would be the fig seed.

428. Rabe feels that something has gone wrong with this last clause, but it seems to me that both the language and the sense are, though awkward, tolerable.

429. It is tempting to see a reference to the Christian Eucharist here (perhaps translating 'the bread' and 'the wine'), especially since in a more 'scientific' context (375,6-26) we were told that the body actually produces blood from digested bread and flesh and bone from the blood. On the other hand he elsewhere refers to the transformation of bread into flesh without mentioning wine and blood (346,20; 356,17; 435,10) and at 358,14-20, where he does mention wine and blood, bread is said to change into *bone* and flesh.

430. In XI.3.

431. sc. the amount of matter it requires to express itself.

432. cf. 408,9ff.

433. More literally, 'So the contraction and expansion of the three-dimensional both towards the largest and towards the smallest is limited'. (For the phrasing cf. 431,8-10.)

434. Equivalent, I think, to 'that anything, while remaining the same thing, could contract'.

435. On this phrase, see the note at 389,28.

436. *auton* ('of himself') presumably means something like 'off his own bat', 'without due attention to the facts'.

437. 433,7-11.

438. 187b13-21; cf. the note at 431,7.

439. On the probable connotation of *peri* in contexts like this see the note at 412,6.

440. Rabe's suggestion that *anthrôpos* ('human being'), which is contracted to *anou* in M, has replaced *onou* ('ass'), is attractive.

441. Perhaps *dexamenê* should be accented on the last syllable.

442. On these see the note at 438,24.

443. Punctuating with a full stop after *hulê* at 437,23.

444. *mus* ('mouse') was both the word for 'mussel' and the name of a kind of fish.

445. I don't know what to make of *monon* ('only') in line 18 and have ignored it in the translation.

446. The marine dog is the dog-fish, a small shark; the astral, the dog-star, Sirius, or its constellation.

447. Changing *eidopepoiêtai* to *eidopepoiêsthai* at 439,5. (Rabe suggests deleting or emending *anankê* at 439,7.)

448. cf. 437,7-8.

449. 436,26ff.

450. Or perhaps: 'And they expect [us] to accept this!'

451. As De Haas (*John Philoponus' New Definition of Prime Matter*, 118) points out, both here and in line 14 *eidê* is ambiguous between 'forms' and 'species'.

452. Closing the parentheses after *diastatou* rather than after *huphestêken* at 440,14.

453. Punctuating with a full stop after *aphthartos* at 441,9.

454. On the probable connotation of *peri* in contexts like this see the note at 412,6.

455. This is, I think, meant to establish that it is 'not-body'.

456. cf. Plato, *Soph.* 235C4-6, which is frequently cited by the commentators, and always, as here, with *kaukhêsetai* for Plato's *epeuxêtai*.

457. At 441,21ff.

458. The corresponding 'on the other hand' is at line 20.

459. Although I have done my best with it, *dunamei on asômaton* (442,14-15) strikes me as odd and I suspect that Philoponus may have written *dunamei ousa asômatos* (cf. *dunamei ousa sôma* ('being potentially body') in the parallel argument at 444,10-11), in which case I would translate 'they will be unable to show whether, being potentially incorporeal, matter underlies physical bodies at all'.

460. 413,24ff.

461. As 442,3ff. has seemed to show.

462. As supposed at the beginning of the sentence.

463. The corresponding 'on the other hand' is at 444,10.

464. *Metaph.* 1050b6ff. (also cited at 132,13).

465. In the passage cited in the last note.

466. cf. 442,12ff.

467. 427,13-15.

468. Changing *ekhon* to *ekhein* at 445,1.

469. cf. the similar phrase at the beginning of the chapter (426,6).

470. cf. 407,23ff.

471. *Alc. I* 114E7-9 (significantly modified).

472. Changing *autôi* to *autêi* at 446,9 (cf. 404,19 and 23).

473. 314,13-15.

474. *einai* at 446,18 is awkward and perhaps should be emended to *esti* or, since there is nothing that corresponds to it at 314,15, deleted altogether.

475. 192a25-34.

476. Supplying *ho kosmos* before *aïdios* at 447,4, as suggested by Rabe.

477. The reference seems to be to 350,1ff. (cf. for example 447,25-6 and 350,28-9), which is scarcely at the end of IX.

478. cf. 403,16 and, for Plato, *Tim.* 49Aff.

479. At 447,23.

480. *GC* 332b31-333a15, I think.

481. On this phrase, see the note at 389,28.
482. Or, say, 'the informed man, from the not-informed'.
483. Changing *edeêthêsan* to *edeêthê an* at 450,18, as suggested by Rabe.
484. 404,6-8.
485. More literally, 'coming to be on the right'.
486. Adding *to* before *aïdion* at 451,28, as suggested by Rabe.
487. I have transposed the construction somewhat.
488. Note the rather different formulation.
489. 404,7-14.
490. For my reasons for preferring 'matter' to 'material' in contexts like this, see the note at 349,17.
491. Reading *haploun* for *haplôs* at 453,11, as suggested by Rabe.
492. Or perhaps 'consisting of some stone ... and that kind of dressing'.
493. Treating the aorist *elabomen* as 'gnomic'.
494. In other words, from one point of view preparing building stone is analogous to making a stone seat: both may be viewed as 'the generation of form or of a composite'.
495. sc. established an infinite regress.
496. De Haas (*John Philoponus' New Definition of Prime Matter*, 257, n. 21) compares 444,17-21, 449,9-13 and 373,18-377,6, but nothing quite fits. The problem is the reference to form; without it we would have to go no further than 452,26-453,9 immediately above.
497. 404,10-12.
498. 346,18ff.
499. 374,27-375,2. The way he puts it there is that 'the output and product (*apotelesma*) of one power becomes matter for another power'.
500. Assuming that the construction is consecutive rather than final, but Rabe may be right to suspect *zêtômen* ('we can look for').
501. Rabe suspects that *enginomenon* ('which emerges') is corrupt.
502. sc. of stone and shape.
503. 346,11ff.
504. All in IX.9.
505. This presumably means 'in the present argument'.
506. sc. in the cosmos as presently constituted.
507. sc. if opposites must have opposite properties.
508. 147a29ff.
509. sc. form.
510. Understanding *hulês* from line 8, but Rabe's suggestion that it has in fact dropped out of the transmitted text is attractive.
511. 448,10ff.
512. Rendering *eiper* + the optative.
513. Presumably we are to think of the *kosmopoia* as a continuing process (cf. the similar usage at 544,11), albeit one with a beginning. However, the phrasing is still awkward and *kosmos* would be easier and more in accord with what Philoponus goes on to say in the remaining sections (cf. especially XI.15 and its section summary).
514. 339,25ff.
515. sc. as clearly as Proclus implies.
516. sc. than for maintaining his reputation.
517. Although what follows has much in common with 400,16-25, the present sentence is, as Rabe saw (see the apparatus *ad loc.*), an echo of 318,5-7.

518. What is said of the quotation from Plato and Homer in chapter 9 at 320,22 applies equally to the quotations from the *Timaeus* in this section.

519. sc. the four elements.

520. *Tim.* 54B-C.

521. *Tim.* 56D. The words *tria, pur hudôr aêr, eis allêla metaballein dunatai* ('Three things, fire water air, can change into one another') at 460,18-19 look like an explanatory gloss and I have excluded them from the translation.

522. Presumably in his *Against Aristotle*, for which see the note at 396,24.

523. Philoponus' comment.

524. The phrase is obscure. Presumably it means that, having set the cosmos going, he returned to his normal activities. (Or could it mean 'he remained in his customary abode' – for *êthos* in this sense see LSJ s.v. I.)

525. *Tim.* 42E5-43A2.

526. sc. he leaves loose ends. Philoponus got the proverb, which he uses several times, from Aristotle, *Phys.* 207a17, on which he comments at *in Phys.* 478,19ff.

527. It seems to me that the argument *should* proceed at this point as my paragraphing and my translation of *gar* suggest, but the Greek is rather against it. Perhaps there is something wrong with the text, or perhaps I'm missing something.

528. Literally 'those around Empedocles', but the phrase is often equivalent to 'x and his followers', or just 'x'.

529. cf. the similar statement at *in GC* 22,23-5. Evidently this juxtaposition of 'particles' is not incompatible with 'total mixture', which depends on thorough-going qualitative change. For this situation cf. Sorabji, *The Philosophy of the Commentators*, vol. 2, 294-8.

530. More literally, 'the most indivisible'.

531. Literally, 'of wholes through wholes'.

532. 356,18-21.

533. sc. the Neoplatonists'.

534. Or perhaps 'imitating their willful misunderstanding of the arguments' (cf. Lampe, *agnômosunê*. 3).

535. Or perhaps 'textually', 'in as many words'.

536. A reference to the *topos* 'Plato is dear but the truth is dearer', for which see the note at 144,22 in my translation of *Aet.* 6-8.

537. 400,18-21.

538. *Phaedo* 91C.

539. Proclus rather than Plato, I think; apart from anything else, the same phrase is used of him in a similar context at 482,21.

540. 459,1-5.

541. Changing *idiôn logôn* to *dialogôn* at 464,21, as suggested by Rabe (cf. *dialogôn* at 459,4).

542. cf., for example, with Rabe, 125,7ff. and 135,9ff.

543. 459,5ff.

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English-Greek Glossary

able to destroy: *phortikos*
abortifacient: *phthoreion*
abscess: *phlegmonê*
accept: *homologeîn*
accident: *sumbebêkos*
account: *logos*
act (v.): *energeîn*
active: *drastêrios*
activity: *energeia*
actual: *energeiâi*
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