Repetition and Internal Allusion in Lucretius' *De Rerum Natura*

Abigail Kate Buglass

Trinity College

Submitted for the degree of Doctor of Philosophy

Faculty of Classics, Sub-Faculty of Classical Languages and Literature

University of Oxford, Michaelmas Term 2015

100, 000 words

Abstract

This thesis aims to solve the apparent problem of the frequent repetitions in Lucretius' *De Rerum Natura* (*DRN*). Verbal repetitions of many different lengths pervade *DRN*, and are noted in the scholarship. Yet a consensus has not been reached as to their purpose and function, or even if they rightly belong in the text. Multi-linear repetitions are viewed as a temporary stop-gap which Lucretius would have removed or adjusted had he lived long enough to effect it; or as later interpolations; while shorter repetitions are underplayed or even ignored altogether. But repetitions and internal allusions in *DRN* are part of a purposeful, meaningful didactic and rhetorical strategy, and they form much of the intellectual structure of the poem. These internal connections combine in *DRN* to form a remarkably complex intratextual network. The thesis argues that repetition is a crucial way in which Lucretius conveys his arguments and persuades the reader to pursue a rational life.

Chapter 1 analyses the ways in which Lucretius' epic predecessors used repetition and how Lucretius may have applied these models. Chapter 2 looks at the internal evidence for the alleged unfinished state of the poem and examines the function of long repetitions in *DRN*. Chapter 3 investigates the rhetorical background to and functions of different kinds of repetition in *DRN*. Chapter 4 explores the didactic and psychological effects of repetitions and internal allusions. Chapter 5 shows how repetition creates an image of the world Lucretius describes: just as Lucretius tells us that atoms and compounds make up different substances depending on their arrangement in combination, so repetitions perform different functions and produce different outcomes depending on their placement in the text. Throughout the poem, repetition serves again and again to reinforce Lucretius' message, creating argumentative unity, and bringing order from chaos.

Acknowledgements

My sincere thanks to my supervisors, Stephen Harrison and Tobias Reinhardt, for reading various drafts of the thesis, and for academic support more generally. It was wonderful to be able to speak with them about Lucretius for three years, and I learned a great deal from them.

The Arts and Humanities Research Council (AHRC) funded my studies in Oxford with a studentship. I am grateful to Trinity College for awarding me the Christie-Miller Scholarship which funded the rest of the joint-award, and a senior scholarship later in my studies. The AHRC also provided a travel award for a period of study at Columbia University in New York in my second year; the Derby Scholarship from the Craven Fund was my main source of funding during this time. The Derby Scholarship also funded a trip to a German Summer School in Heidelberg at the end of my third year. The final period of my doctorate, spent at Ludwig-Maximilians Universität in Munich, has been funded by the Jenkins Scholarship, the Scatcherd Scholarship, Trinity College, and a Santander Travel Award. To Kevin Knott, the bursar of Trinity College, go my grateful thanks for his continued support.

The Classics Department at Columbia University made me feel very welcome for an enjoyable period of study in early 2014 and I am grateful to have made new friends across the ocean. My particular thanks go to Gareth Williams and Katharina Volk for hosting me and generously giving up their time to discuss Lucretius with me. Members of the department at Ludwig-Maximilians-Universität have been incredibly hospitable and I owe special thanks to Therese Fuhrer.

Apart from those already mentioned, I have been shown kindness by many scholars in the field. Gavin Kelly has been encouraging since my undergraduate days and has often given up his time to read pieces of work and discuss them with me. In and around New York I met several Lucretian scholars; Phillip Mitsis in particular was kind enough to discuss Lucretius, Homer, and repetition with me. Ted Kenney has provided me not only with helpful and thought-provoking comments on various essays and drafts, but also with a delightful correspondence for the last four years. Thanks also to Anne Kenney for being so welcoming. David Butterfield has provided me with debate and discussion for several years since we first met at a conference in 2009, and I am grateful to have learned from his comments. Martin Ferguson Smith most kindly sent articles, books, and encouragement. Jackie Elliott was generous enough to provide me with an unpublished draft of part of her book on Ennius. For instructive feedback as part of the review process at Oxford, thanks to Peta Fowler, Llewelyn Morgan, Barney Taylor, and Gail Trimble. Gavin Kelly, Michael Lurie, and Richard Morgan all read parts of the thesis in the final stages, and suggested many improvements. Any and all shortcomings which remain in the thesis are naturally my own.

Michael Lurie did not only teach me about Lucretius but by his example I learned to be more intellectually creative and to think independently. From him I also discovered where my passions lay in the ancient world, and many other things besides. This was a priceless gift which I will never be able to repay.

I was fortunate enough to learn Latin at Liverpool College from Rodney Lavin, Emma Othen, and Alison Howard. The latter was kind enough to teach me Greek during lunch-breaks, and was the first to introduce me to Lucretius. I am incredibly fortunate to have had an opportunity to learn about the ancient world from such dedicated teachers and classicists, and this is not an opportunity available to all.

My friends in Edinburgh made my master's an exciting experience, full of learning and fun. Special mention to Fiona Mowat for making our study sessions so inspiring, with poetry and affogati; and to Belinda Washington for putting me up and putting up with me on numerous occasions when I travelled up to Edinburgh. Friends in Oxford helped me in many ways, and Oxford would have been much less fun if I had not met them. Thanks go to Andy Dahl, Charlotte Lynch, and Jenni Zelenty for being such supportive and kind friends. They also, along with Nikola Vlahov, patiently explained particles, quantum physics, and other mysteries to me. George Smith of the Materials Department talked with me about the 'Swerve' and Newton's First Law. Dan James sat with me in Turl Street Kitchen, taught me how to use Python, and then taught it to me again when I forgot it all. For the enormous job of writing and compiling the code which generated the catalogue at the end of this thesis—and listening to all of my various requirements and demands for it—thanks here is simply not enough. Lloyd Elliott so kindly wrote some last-minute code to organise the catalogue. Thanks also to the Atom Probe Group for adopting me, to Kate Sanborn for being so kind to me in America, and Yvonne Klein for always thinking of others before yourself. Other friends living all over: thank you simply for your friendship.

My family and friends continuously remind me what is important. To my Nana, Sheila Viner, for our lovely chats and for everything else. Thank you to my brother Daniel, my sisters Sophie and Charlotte, my brothers-in-law Dan and Ben for everything you do for me, and to my nieces and nephew for making me smile and being generally delightful. This thesis is dedicated to my parents, who have always encouraged and supported me, and told me not to work so hard. This dedication can in no way repay them for everything that they have made possible for me.

Dedicated with love to my parents, Stephen and Deborah Buglass

CONTENTS

LIST OF ABBREVIATIONS……..1

INTRODUCTION……2

CHAPTER

1. POETICAL PREDECESSORS……...26

    1.1 Homer……..28
        1.1.1 Phrases and Formulas……..…31
        1.1.2 Multi-linear Repetitions……...……..40
    1.2 Hesiod……..44
        1.2.1 Polyptoton and Emphatic Repetition……..44
        1.2.2 Repeating for Unity…….……...52
    1.3 Ennius……..56
        1.3.1 Phrases and Formulas…….....57
        1.3.2 Repetition of Homeric Formulas……....62
    1.4 Empedocles……...…...67
        1.4.1 Polyptoton and Empedoclean Reflection of Elements……...67
        1.4.2 Anaphora or Priamel……...70
        1.4.3 Repetition at a Distance……..71
        1.4.4 Variety in Element-Naming……...…74
    1.5 Apollonius Rhodius……76
        1.5.1 Anaphora or Unfulfilled Priamel……77
        1.5.2 Absence of Repetition……78
        1.5.3 A Comparison with Catullus……...80
    1.6 Conclusion……82

2. LONG REPETITIONS AND THE ‘UNFINISHED’ STATE OF *DRN*……..84

    2.1 The ‘Unfulfilled Promise’ of 5.155……..…88
    2.2 The Ending of the Poem……...90
        2.2.1 Lucretian Book Endings……..……91
        2.2.2 Connections between the Close of *DRN* and Other Parts of the Poem…….……..…102
            2.2.2.1 Fighting *religio*……..…103
            2.2.2.2 Learning to use *ratio*……..…107
    2.3 Multi-linear Repetitions: signs of incompletion?.....117
        2.3.1 Repetition and Allusion for Unity……121
            2.3.1.1 Emphasis…….……...121
            2.3.1.2 Argumentative and Thematic Repetition……...…125
        2.3.2 Repetition which Shows the Reader her Progress……..…131
    2.4 Conclusion……..….139

3. THE RHETORIC OF REPETITION IN LUCRETIUS……142

3.1 Repetition for *amplificatio*…….145
3.1.1 Persuasive *amplificatio*: rendering the reader *attenta, docilis, benivola*……..146
3.1.2 Amplified Vision……...150
3.1.3 Allusive Arguments: *amplificatio* as connection……..152
3.2 Repetition for *expolitio*……...164
3.2.1 Refuting the Existence of Gods…….166
3.3 Rejection of Opponents……..172
3.4 Breaking Down Walls……..…….176
3.5 Conclusion……..179

4. THE DIDACTICS OF REPETITION……181

4.1 Emphatic Repetition……...181
4.1.1 Small-Scale Emphasis……...183
4.1.2 Large-Scale Emphasis……...…187
4.1.2.1 Case Study: mortality……190
4.1.3 Emphasis Pervading *DRN*…….……193
4.1.3.1 Encouraging Conscious Learning……..…193
4.2 Arguments and Applications……..201
4.2.1 Centaurs and Gods……201
4.2.2 Case Study: *sponte sua*……..203
4.2.2.1 Spontaneous Generation; Removing the Gods…….204
4.2.2.2 Curing a Fear of Death……..213
4.2.2.3 Versus the Existence of the Divine……...217
4.2.2.4 Metarhetorical Spontaneity……...219
4.3 Self-conscious Learning……..…222
4.3.1 Replacing the Divine…….223
4.3.2 Acquiring *Ataraxia*, or: Being Responsible for Your Own ...Happiness……228
4.3.3 Reader's Progress……...…230
4.3.4 Didactic Coercion……...…232
4.4 Conclusion……...…235

5. ‘ATOMISTIC IMAGERY’: REPETITION AND REFLECTION OF THE WORLD IN THE TEXT……237

5.1 ‘Atomic’ Language……240
5.1.1 Arrangement and Order……241
5.1.2 Mirroring Word Order……249
5.1.3 A Problematic Repeated Couplet……251
5.1.3.1 A Textual Question……255
5.1.4 Atomistic Language Against Divine Creation……257
5.2 Building on Fundamentals……260
5.2.1 Atomic Variety and Avoiding Repetition……260
5.2.2 Atomistic Arguments……267
5.2.2.1 World and Text……269
5.3 Picturing the *rerum natura*……280
5.3.1 Mind and Soul……280
5.3.2 Flesh and Blood……283
5.3.3 *varios linguae sonitus*……283
5.3.4 ‘Elemental’ Destruction……284
5.3.5 Reality Reflected: deleting gods……286
5.4 Conclusion……289

CONCLUSIONS……292

APPENDIX: CATALOGUE OF REPETITIONS IN LUCRETIUS……298

BIBLIOGRAPHY……361

Abbreviations

DNP	Cancik, H., Schneider, H. (Antike) and Landfester, M. (Rezeptions- und Wissenschaftsgeschichte) (2015), edd., *Der Neue Pauly*, Leiden.
DK	Diels, H. and Kranz, W. (1951[6])edd., *Die Fragmente der Vorsokratiker*, Berlin.
Ernout-Meillet	Ernout, A and Meillet, A. (1951), *Dictionnaire Etymologique de la Langue Latine. Histoire des Mots*, Paris.
H-S	Hofmann, J.B. and Szantyr, A. (1972), *Lateinische Syntax und Stilistik*, München
Kühner-Stegmann	Kühner, R. and Stegmann, C. (1962[4]), *Ausführliche Grammatik der lateinischen Sprache: Satzlehre*, München.
Kühner-Holzweissig	Kühner, R. and Holzweissig, F.W. (1982), *Ausführliche Grammatik der lateinischen Sprache: Satzlehre*, Darmstadt.
LSJ	Liddell, H.G., Scott, R., and Jones, H.S. (1996[9]), edd., *A Greek-English Lexicon*, Oxford.
OLD	Glare, P.G.W., ed., (2012[2]), *Oxford Latin Dictionary*, Oxford.
TLL	*Thesaurus Linguae Latinae* (1900-), *editus auctoritate et consilio academiarum quinque Germanicarum Berolinensis, Gottingensis, Lipsiensis, Monacensis, Vindobonensis.*
W-H	Walde, A. and Hofmann, J.B. (1938), *Lateinisches Etymologisches Wörterbuch*, Vol. 1, Heidelberg. Walde, A. and Hofmann, J.B. (1954), *Lateinisches Etymologisches Wörterbuch*, Vol. 2, Heidelberg.

Abbreviations for other Greek and Latin authors and titles are based on those used in Liddell-Scott-Jones' *Greek-English Lexicon* and the *Oxford Latin Dictionary*.

For Lucretius I generally use Martin's (1969) text; for Epicurus I use Arrighetti's edition (1973) though I also consult Bailey (1926). I use the numbering of Diels and Kranz for references to the Presocratic philosophers.

I provide a descriptive catalogue of repetitions in Lucretius' *De Rerum Natura* as a supplement to this thesis.

Introduction

> '…a thorough examination of Lucretius' style, even in the expository, "unpoetic" portions of the *DRN* would show that the poet and craftsman is consistently in evidence throughout the entire poem. If hitherto this has eluded the generality of his critics, it is, I think, because they have approached him in the wrong spirit, prepossessed by certain inherited and unexamined assumptions, themselves based on metaphors of doubtful legitimacy…'
>
> E.J. Kenney (2007), *Doctus Lucretius*, 327.

Repetitions are a remarkably prominent feature of Lucretius' famous poem. The manifold verbal iterations in *De Rerum Natura* (*DRN*) can consist of many lines, individual lines, phrases, and even individual words or letters. They can occur close together or thousands of lines apart. They can be with or without variation. Yet in spite of their frequency the repetitions in *DRN* have been neglected and underplayed in the scholarship, and have generally been assigned very little significance in the poem as a whole.[1] Where they are noted, their very presence in the poem has frequently been criticised, and agreement has not been reached as to how one should treat them, or even if they rightly belong in the text.[2]

Long, multi-linear repetitions are the most controversial in *DRN*; they are frequently bracketed or even deleted without comment in editions of the poem. These duplicated passages are frequently believed to be a sign of the incomplete state of *DRN*, temporary stop-gaps which Lucretius would have removed or altered had he

[1] The commentators in general observe repetitions, though they rarely do more than indicate the location of the repeated line or passage, and repetitions smaller than this (phrases, words, or alliteration) are rarely acknowledged. There are also those who suggest that repetition occurs because of the *egestas linguae* (1.136-9) mentioned by Lucretius himself: see e.g. Ingalls (1971), 232-3; Sedley (1998), 35-9. Ingalls, on a sample of 25 Lucretian verses (231): 'most of the repetitions serve no apparent didactic function'.

[2] Poteat (1912), 14-5 views polyptoton as the only type of repetition in Lucretius. Like others, he believes that clarity is the intended outcome of Lucretian repetition. Analysis has not generally gone further than to assert the intention to clarify or emphasise. Poteat adds, 14, that 'Lucretius is occasionally led by his apparent desire for perfect clearness into inartistic and even careless iteration'. Cf. Duff (1963[3]), 218: 'a straining after clearness leads to repetitions equally wearisome'; Assertion of the clarity or emphasis produced by the repetition of individual words is seen too in Bailey (1947), 156-7. In general Bailey's (1947) prolegomena offers a fuller explanation of Lucretius' repetition than other commentators. For deletion of repeated verses, see below, Chapter 2 generally and esp. 2.3.

lived long enough.[3] Marcus Deufert suggests, on the other hand, that lengthy repetitions are subsequent interpolations which were never written by Lucretius.[4] They have even considered to be a sign of poetic incompetence.[5] Repeated verses, meanwhile, are also often bracketed or deleted, and in general are given little or no attention. Bailey supposes that verse-repetitions occur because the line 'could not be said better, so it is repeated'.[6] The smaller repetitions of phrases and even individual vocabulary-items are rarely acknowledged and in general seriously underplayed in terms of significance to the content and message of the poem.

Short verbal echoes have sometimes been seen as emulating the formulas of Greek epic, and are often not considered as susceptible to interpretation.[7] Meanwhile, studies on the rhetoric of Lucretius have afforded repetitions in general little importance in terms of rhetorical or didactic strategy.[8] There has been growing receptivity to the notion that shorter repetitions, at least, may be emphatic in outcome.[9] But in general, the different kinds of repetition have not been viewed as a unit, as part of a complex

[3] See, e.g. Bailey (1947), 36 on the almost verbatim repetition of 3.806-16 at 5.351-63; cf. Smith (1992).
[4] Deufert (1996), *passim* advocates deletion (sometimes, 302-4, transposition) of 368 lines of *DRN*'s 7415. Deufert does not take long repetitions to be a sign of incompletion.
[5] Munro (1866[4]) calls repetition in his note on 1.875, 'to our taste faulty'; cf. Munro, 16; Mewaldt (1986), 36 who calls the repetition at 4.1-25 *Geschmacklosigkeit*. Even Bailey (1947) who devotes a fair amount of space to the discussion of repetitions seems somewhat puzzled by this seemingly odd feature of Lucretian poetry and tends towards a view that lengthy repetitions are a 'stopgap' (165), and that Lucretius would have replaced or readjusted the repetition given the opportunity. See Bailey 161-5 on long repetitions. For the footnote function of repetitions cf. Smith (1966), 77; the 'Alexandrian footnote', in Ross (1975), 78 and Hinds (1998), 5. Repetitions of single words are viewed in a similar way: see above, fn. 2. Bailey acknowledges, 156, rhetorical purpose of emphasis of the repetition of a single word, but also says: 'Sometimes [repetitions] are made because the course of his thought or argument demands it; here the taste of the Augustans and most modern poets is against him; the repetition is regarded as ugly and is avoided, but Lucretius seems to feel no repugnance.'
[6] Bailey (1947), 161.
[7] Ingalls (1971).
[8] Notwithstanding the crucial contributions made by the scholars who initially explored rhetoric in Lucretius, e.g. Classen (1968); Marcoviç (2008). Marcoviç claims, 75 that 'excessive repetition is generally avoided, since it violates the aesthetic principle of *variatio*': he discusses repetition in terms of establishing the 'formulaicity' of phrases.
[9] Lenz (1937) first accepted more repetitions as genuine, but he concentrates on which have priority, rather than didactic function. Deutsch (1939) was the first to acknowledge and explore Lucretius' use of the technique, but concentrates on shorter repetitions and aural patterns. Her dissertation is often overlooked in terms of its significance. Cf. fn. 11 below. Only more recently are scholars receptive to the notion that repetition can be meaningful: e.g. Volk (2002), 76-7, and Kenney (2014[2]), 20. For repetition as indicating emphasis, see briefly Macguinness (1965), 73-5; and Gale (1994b), 5-6. Elder (1954), esp. 94 sees repetitions as subconscious rather than strategic; for repetitions building connections see Smith's instructive article (1966).

network which is an integral part of the intellectual structure of *DRN*.[10] Rather, they have been divided according to their length and treated (if at all) in isolation, and variously named as ungenuine, or as temporary measures, or as an altogether odd phenomenon. Although there are those who have devoted more attention to Lucretius' repetitions in general, a comprehensive study which includes discussion of argumentative context and the effect and function of replications in the poem does not yet exist.[11]

This thesis will try to show that repetition is a major part of Lucretius' persuasive approach, and that it is a crucial, often subtle, way in which Lucretius conveys, and convinces the reader of, his arguments. I will argue that internal connections and repetitions ought not to be viewed as a side-effect of the supposedly unfinished state of the poem, nor as interpolations by later readers of the text, and nor should they be neglected or down-played, as phrase-repetitions and smaller-scale examples of the technique so frequently have been. On the contrary, the thesis will propose that repetitions in *DRN* combine to form a remarkably complex web of intratextual connection and allusion which ultimately generates and illustrates the unity of Lucretius' message.

The problematic history of Lucretian scholarship has doubtless had great effect on how we view Lucretius and consequently his text today. The damaging tradition begins with Jerome's note in his supplements to Eusebius' *Chronicon*, that after Lucretius took a 'love potion' he became frenzied, wrote *De Rerum Natura per*

[10] Although Smith (1966), 73-83 explores some repetitions as part of a study on Lucretius' 'thought processes', and comes the closest to the approach which I wish to take.
[11] Deutsch (1939) provides a comprehensive catalogue of verbal repetitions and patterns, but the nature of the study prevents discussion of argumentative context; she also has a tendency to revert to aesthetic reasons for wordplay and repetition (e.g. 21, 128-9). Deutsch does however claim, 46-7, that didactic function can exist where repetition is 'naturally made possible' by the sense of the argument, but does not discuss this in much detail. Wills' (1996) broad and learned study touches on Lucretius but there is not much room for discussion there either. Despite some reservations about the strategy (see fn. 5), Bailey also considered that repetitions may be 'emphatic' (see fn. 6). Friedländer (1941), and West (1969) considered poetical plays as having argumentative or rhetorical merit but they do not focus in particular on repetition as didactic strategy. Cf. fn. 9.

intervalla insaniae, and killed himself in his 44th year.[12] Despite Konrad Ziegler's article of 1936 which discredits the account, and others who subsequently wrote it off as Christian propaganda, surprisingly few scholars are willing to dismiss Jerome's biography entirely, though some are willing to express scepticism.[13] Jerome's slander evidently had lasting effects, though it is surely too simplistic to claim that Jerome's erroneous account is the root of the problematic interpretations of *DRN*. The tradition of Lucretius' early death and unstable nature was maintained in the scholarship: Lucretius has been portrayed at worst as maniacal, suicidal, categorically insane, and at best depressive and unpredictable. This portrayal of a deeply odd and mysterious character has had no end of negative repercussions for the interpretation of *DRN*.[14] Problems have always been seen in the text of Lucretius. Finding inconsistencies or novel features in *DRN*, scholars attributed such traits to the character assessment they were familiar with and chose to accept. Mommsen elaborately claims in his *History of Rome*:

> 'It is a remarkable fatality, that this man of extraordinary talents, far superior in originality of poetic endowments to most if not to all his contemporaries, fell upon an age in which **he felt himself strange and forlorn**, and in consequence of this made the most singular mistake in the selection of a subject. The system of Epicurus, which converts the universe into a great vortex of atoms and undertakes to explain the origin and end of the world as well as all the problems of nature and of life in a purely mechanical way, was doubtless somewhat less silly than the conversion of myths into history which was attempted by Euhemerus and after him by Ennius. **But it was not an ingenious or a fresh system**, and **the task of poetically unfolding this mechanical view of the world was of such a nature that never probably did a poet expend life and art on a more ungrateful theme.**'
>
> Mommsen (1894), Vol. 5, 18, trans. Dickson.

[12] *Titus Lucretius Carus nascitur, qui postea a poculo amatorio in furorem versus et per intervalla insaniae cum aliquot libros conscripsisset…sua manu se interfecit anno aetatis XLIV*.

[13] Ziegler (1936); cf. Schmid (1962), 681-819, and esp. 774-814. Schmid further devalues Jerome's biography as evidence, by showing similarity between Jerome's biography and other anti-Epicurean and anti-pagan slander in the early Latin fathers. Cf. Wilkinson (1949) who proposes that the death of Lucullus, which was described by Pliny, *NH* 25.25, was mistakenly assigned to Lucretius by Jerome; Classen (1968), 79-80; and Canfora (1993), 23-36. For current scholars doubting Jerome see, e.g., Gale (1994b); Kenney (2014[2]), 5-6. See below, pp. 84-6.

[14] But the conviction of Lucretius' unstable mental state is not confined exclusively to older scholarship. Relatively recently Hardie uses the word 'fanatical' ((2009), 1). Kenney ((2014[2]), 5) reveals a sensible attitude given our lack of information about Lucretius: 'Little is known of Lucretius. This is by no means a disadvantage for the interpretation of his poem, which can and should be understood without reference to the personal circumstances of the poet.' Kenney also summarises the polluting effect of Jerome's account on Lucretian scholarship; see 5-6 generally.

Mommsen also identifies features of *DRN* deserving of censure, specifically naming 'frequent repetition' as one of the 'incredible defects' of the poem.[15] And one might reasonably trace the supposed dichotomy between poetry and philosophy in *DRN* to this scholarly tradition in general, and to Patin's 1883 thesis of *L'anti-Lucrèce chez Lucrèce* in particular.[16] Patin attributed inconsistencies which he saw within the poem to Lucretius' internal psychological conflict: a war with himself: between devotion to the Epicurean cause on the one hand and a fervent religiosity which could not be dismissed on the other. The Romantics were apparently underwhelmed by *DRN*: the poet Percy Bysshe Shelley expresses sentiment similar to Mommsen's in his picturesque misjudgement that 'Lucretius had limed the wings of his swift spirit in the dregs of the sensible world', while Samuel Coleridge wrote in a letter to William Wordsworth that 'Whatever in Lucretius is poetry is not philosophical, whatever is philosophical is not poetry'.[17] This perspective was carried into modern criticism, with frequent discussion of 'purple passages' and of 'dry philosophy' in apposition to poetical parts of *DRN*.[18] And one only needs to glance at the commentaries and editions to see the manifold issues scholars have had with the structure of the poem, and their dissatisfaction with aspects such as the apparent digressions, diversions, and arguments which they feel to be less than adequate.[19] In general, Lucretius' *DRN* has been viewed as admirable in mission, disappointing in execution. The attitudes briefly

[15] Mommsen (1894), Vol. 5, 18.
[16] See too Sharrock (2013), 1 on the 'golden oldie' of the undergraduate exam: is Lucretius a poet or philosopher?
[17] The letter is quoted by Volk (2002), 72.
[18] For which recently see Farrell (2007), 88-9, and on whose comments see Sharrock (2013), 6. Cf. e.g. Munro (1866[4]), 7: 'We of course care, not for its scientific value or truth, but for its poetical grandeur and efficacy upon our imaginations'; and at 8 Munro claims that in Book 6 'there is not much room for the highest virtues of poetry'; cf. Duff (1963[3]), 218 who claims that there are 'long dreary flats. A case in point is the second book. Opening with the deservedly renowned *Suave mari magno* on the sovereignty of reason….closing in musical pessimism, it contains dull tracts of scientific exposition which make it perhaps the driest of the six.' Cf. 219: 'When all has been said, however, on roughnesses and monotonies in Lucretius, his verse remains undeniably strong and majestic…just as his science yields to fancy, so his precision and roughness yield to melody.' Against such a view see the quotation which opens this introduction.
[19] Apparent digressions are seen unanimously at e.g. 2.352-66, 5.110-234, 5.509-770. For 'suspension of thought' in Lucretius, see e.g. Gale (2007), 4; Bailey (1947), 18 (n.1); and Büchner (1936).

described here might be seen as a cunning way of discrediting the unsettling and rebellious message of the poem. If the hard content of *DRN* is viewed as unsatisfactory and ill-conceived, the anti-religious arguments contained therein cannot be a threat. The insistent characterisation of Lucretius either as a madman who should not be taken seriously, or the forced dichotomy which views *DRN* as a vessel for fine poetry yet deeply flawed philosophical content, have long hindered Lucretius' message from a full hearing.

Jerome's assertion of Lucretius' early death induced, or allowed, scholars to believe that Lucretius left *DRN* manifestly unfinished.[20] Even if most scholars deny that they give much or any credit now to Jerome's account of Lucretius' suicide, they retain nonetheless a fervent belief in the incomplete state of the poem. This conviction permeates the scholarship to such an extent that critics often show recourse to it on encountering interpretative difficulties, attributing features such as repetitions to Lucretius' failure to complete the work, as I have briefly mentioned above. Other evidence cited in favour of the incomplete state of *DRN* aside from frequent repetitions and perceived inconsistencies are the pessimistic, 'unsatisfactory' ending of the poem and the 'unfulfilled promise' of 5.155. These issues are discussed at greater length in the thesis, in Chapter 2. The lack of meaning attributed to repetition in *DRN* may also be explained simply by the fact that there has been more interest in

[20] The following suppose the poem to be incomplete: Giussani (1896-8); Büchner (1936); Sandbach, (1940), 75; Bignone (1945-51), v.2, 318-22; Bailey (1947), 32-6; Lightfoot (1953), 43; Farrington (1965), 33 calls *DRN* 'obviously unfinished' but does not give a reason; Boyancé (1963); Kenney (1977), 22-33; Townend, (1979), 110; Sedley (1998), xvii, 134, 154; Gale (2009), on 5.155. O'Hara, (2007), 56-76 surveys the evidence for incompleteness (particularly in Sedley, 1998), and concludes that belief in the incomplete state of the poem has little sound foundation. Cf. O'Hara (2005), 20 on the incompletion of *DRN*: he talks of the 'endlessly elaborate theories' which scholars invent (mentioning in particular Sedley (1998)) for the ways in which Lucretius would have changed the poem had he lived long enough. Ziegler (1936) for rejection of the evidence of Jerome's account as Christian libel; Elder (1954), 88-90 fn.3 writes a long note in which he examines views of incompletion. With Ziegler he expresses doubt as to the credibility of Jerome's account, but still in my view lends too much credence to the biography in that he points out that Jerome's account does not indicate that Lucretius had not completed the poem when he died; to my mind Jerome's biography is irrelevant in its entirety. Elder concludes by saying, fn. 3, that he doubts that *DRN* is any more complete than either the *Aeneid* or the *Metamorphoses*, while in the main text, 88, calling the problem 'obligingly indeterminable'.

other interpretative difficulties: argumentative sequences in Lucretius are often complex or structured in a rhetorically strong, but confusing manner, and attention has necessarily been devoted to such structural, argumentative, and philosophical issues.[21] But the discussion of the history of scholarship and especially the Jerome account should also show how scholarship in general has been influenced, even subtly, by the idea that Lucretius died early and leaves readers of Lucretius rather too dissatisfied with aspects of the poem which are in fact perfectly reasonable and even contribute in an extremely effective manner towards the message and mission of the poem.

The thesis will explore Lucretius' repetition as part of a powerful didactic and rhetorical strategy. Chapter 1 sets out to establish the notion of repetition as an artful, functional, argumentative technique by exploring how Lucretius' epic predecessors from Homer to Apollonius used repetitions and analysing the ways in which Lucretius uses these different models of repetition. Chapter 2 challenges the widespread belief that Lucretius left *DRN* significantly unfinished, and examines the internal evidence in favour of this conclusion, including and especially multi-linear repetitions, which are frequently held to be a symptom of the incompleteness of the poem. Long repetitions in particular require isolated and systematic treatment because of the historically dominant role they have played in scholars' arguments in asserting the incomplete state of the poem and justifying the dismissal of repetition as strategy in general. Chapter 3 explores the rhetorical background to Lucretian repetition, comparing parts of the rhetorical handbooks and forensic speech to examples of repetition and internal allusion in Lucretius. Chapter 4 looks at psychological, didactic effects of different kinds of repetitions and internal allusions in *DRN*, and Chapter 5

[21] e.g. Reinhardt (2002); and Farrell (2007) and (2008).

shows how Lucretius uses repetition in order to create an image of the world he describes. Just as atoms and compounds produce different substances depending on their arrangement in combination, as Lucretius himself tells us, so repetitions perform different functions and generate different outcomes depending on their position in the text. Throughout the text, repetition serves again and again to reinforce Lucretius' message, creating argumentative unity, and generating order out of chaos.

A more thorough understanding of what precisely repetitions and internal allusions in *DRN* are doing will have implications for related, but often more general issues in Lucretian scholarship, some of which I have mentioned above. First, repetitions are often used to build connections between parts of the text and as will be shown, build associations in the reader's mind between apparently different argumentative contexts. In this way, in many instances these intratextual connections can help us to understand more fully Lucretius' arguments and argumentative strategy. This has potentially significant implications for the understanding of Lucretius in general: this building of connections through verbal repetition is a crucial aspect of Lucretian technique which has simply not yet received the attention it deserves.

The idea that internal connections and verbal repetitions generate a unity in the poem which I advance in this thesis can be used to reconcile poetry and philosophy in the poem. This classic problem is evidently bound up with the general idea that *DRN* is a somewhat uneven and unpredictable text, which stems, as I describe above, from Lucretius' supposed insanity described in Jerome's 'biography' and endorsed by the scholarly tradition which followed.[22] Repetition can inform a view of the structure of *DRN*: one can use it to find a unity between the supposedly 'dry' physics and the poetical passages. A look at three passages from different books of the poem, can

[22] On the dichotomy between poetry and philosophy see fn. 16 above.

illustrate this kind of use of repetition or internal allusion. The first passage is the famous sacrifice of Iphigenia which appears early in the poem at 1.80-101 and which tries to persuade the reader that it is religion, not learning the physics in *DRN*, which can drive mankind to evil:

> Illud in his rebus vereor, ne forte rearis
> impia te rationis inire elementa viamque
> indugredi sceleris. quod contra saepius illa
> **religio** peperit scelerosa atque impia facta.
> Aulide quo pacto Triviai virginis aram
> Iphianassai turparunt **sanguine** foede
> ductores Danaum delecti, prima virorum.
> cui simul infula virgineos circumdata comptus
> ex utraque pari malarum parte profusast,
> et **maestum** simul **ante aras** adstare **parentem**
> sensit et **hunc propter ferrum celare ministros**
> aspectuque suo lacrimas effundere civis,
> **muta metu terram genibus summissa petebat**.
> nec miserae prodesse in tali tempore quibat
> quod patrio princeps donarat nomine regem;
> nam sublata virum manibus tremibundaque ad aras
> deductast, non ut sollemni more sacrorum
> perfecto posset claro comitari Hymenaeo,
> sed casta inceste nubendi tempore in ipso
> hostia concideret **mactatu maesta parentis**,
> exitus ut classi felix faustusque daretur.
> **tantum religio potuit suadere malorum**. (1.80-101)

The strangely neglected description of a cow bereaved of her calf after its sacrifice at 2.352-66 is connected both argumentatively and verbally to the earlier sacrifice of Iphigenia.[23] The evocative scene has always been viewed as digressive, and it has proved difficult to reconcile this remarkably expressive passage with the 'real' argument, of which this scene is ostensibly an illustration: the variety among atoms. But repetitions can be the key to understanding it all. Let us take a look at the passage:

> nam saepe **ante deum** vitulus **delubra** decora
> turicremas propter **mactatus concidit aras**
> **sanguinis expirans calidum de pectore flumen**;
> at mater viridis saltus orbata peragrans
> quaerit humi pedibus vestigia pressa bisulcis,
> omnia convisens oculis loca si queat usquam
> conspicere amissum fetum, completque querellis

[23] Smith (1966), 75 connects the two passages. He considers 2.352-66 in a different way, as part of Lucretius' suspension of thought in order to tell the reader what he must: 'The calf's sacrifice was as pointless as Iphigenia's'.

> frondiferum nemus adsistens et crebra revisit
> ad stabulum desiderio perfixa iuvenci,
> nec tenerae salices atque herbae rore vigentes
> fluminaque illa queunt summis labentia ripis
> oblectare animum subitamque avertere curam,
> nec vitulorum aliae species per pabula laeta
> derivare queunt animum curaque levare;
> usque adeo quiddam proprium notumque requirit. (2.352-66)

In addition to the connections between the two passages which I shall discuss more fully in a moment, a general link may be discerned in that the calf's death could be seen as the sequel to Iphigenia's death. The grief of the mother follows the death of the child, and one learns about the terrible implications and after-effects of the ignorance which leads to organised religion. There are also connections between these two passages and the rejection of the piety of religion much later in the poem, at 5.1194-1202:

> O genus infelix humanum, talia divis
> cum tribuit facta atque iras adiunxit acerbas!
> quantos tum gemitus ipsi sibi, quantaque nobis
> volnera, quas lacrimas peperere minoribus nostris!
> **nec pietas ullast** velatum saepe videri
> vertier ad lapidem atque omnis accedere ad aras,
> nec procumbere humi prostratum et pandere palmas
> **ante deum delubra**, nec aras **sanguine multo**
> **spargere quadrupedum** nec votis nectere vota,
> sed mage pacata posse omnia mente tueri. (5.1194-1203)

The *ante aras* at 1.89 in the Iphigenia passage corresponds with the *ante deum delubra* which is seen in both the description of the cow's grief and the argument against pious religion, at 2.352 and 5.1201 respectively. Just as the calf falls at line 353 in Book 2, so Iphigenia falls to her knees in dread at 1.92. In each sacrifice in Books 1 and 2, there is a sad parent (seen in *maestus parens* at 1.89 and the whole description of the cow's miserable search for her calf in Book 2). The scattering of blood in the refutation of the pious nature of religion in Book 5 (*sanguine multo* | *spargere quadrupedum*) recalls both the vivid description of the calf expiring a hot

river of blood from its chest in Book 2, and the dreadful mention of the hidden knife at 1.90.

As well as aiming to highlight the great evil caused by religion and ultimately ignorance, Lucretius emphasises the overarching mission of *DRN*, and indicates to his reader that the point of learning physics—for example about the variety among atomic shape—is to remove false beliefs which can lead to a religious worldview. For Lucretius the only way to achieve *ataraxia* (freedom from disturbance) is first to understand the world on an atomic level. Lucretius thus unites minute physical arguments with a much broader-reaching message, and thereby shows the unity of argument and message in the poem. Understanding repetitions in this way can help us to understand to a much greater extent the unity of *DRN*. At this point in Book 2, it might also be said that Lucretius smuggles one of the main points of the poem, the damage caused by *religio*, into a passage ostensibly about physics: the scene of the bereaved cow is not a digression but in fact in many respects achieves the main aim of *DRN*. Internal connections draw together apparently disparate parts of the text to show a unified train of thought and mission. This could rid us of the unproductive and even destructive view of Lucretius as a confused figure and *DRN* as a chaotic poem.

We have seen from this one example that repetitions and internal allusions can be used to illustrate how unified the poem is even where sections of *DRN* appear disparate, unrelated, or even digressive.[24] Related to this, if one can use self-allusion and repetition to show unity and accumulation of argument, then this might affect a view of how incomplete or complete the poem is. I have said that Chapter 2 has an especial focus on this problem, and removing long repetitions from the body of evidence in favour of the poem's incomplete state is a major contribution towards

[24] Digressions are named in the commentaries at e.g. 2.352-66; 2.1023-47; 5.110-234; 5.507-770; 5.1194-1210.

viewing *DRN* as more complete than has been conceived before. But the more general arguments about the artful nature of repetition put forward throughout this thesis will, I hope, help to convince of this further and in a more general sense. The thesis should persuade the reader that repetitions can be interpreted easily and productively as a crucial part of Lucretius' argumentative strategy.

My arguments in this thesis are in a sense cumulative: as well as exploring the interpretability of many different examples of repetitions in Lucretius, I suggest that repetitions are simply too frequent in *DRN* and occur on too many different scales to be considered accidental or clumsy, the result of a rough first draft, or as interpolations by later readers. Their sheer frequency and pervasiveness makes a persuasive case that they are part of a strategy. My descriptive catalogue can be consulted to see the frequency of repetitions in Lucretius.[25]

Intertextuality has been at the centre of Latin studies for the last three decades, and this work on Lucretius will add to the field of existing study but especially to the limited work on intratextuality or self-allusion. The word intratextuality has been used by Duncan Kennedy of Lucretius, but he uses it to convey the idea of Lucretius' internalising of the world within the text.[26] He does not use it to convey any notion of Lucretian repetition or self-allusion within a text. For reasons explained below in the methodology I tend to prefer 'internal allusion' or 'self-allusion' to the word 'intratextuality', mainly because intertextuality has come to be used when one wishes to avoid implication of authorial intention (on which see further below, Section 0.1), which I do not aim to avoid.[27] Indeed, much of my argument depends on and encourages the idea that Lucretius' repetition is purposeful and/or functional.

[25] See p. 299-360; for limitations of the computer programme which generated the catalogue see p. 298.
[26] In Kennedy (2007), 376-96.
[27] But where I do use 'intratextuality' or 'intratextual', this does not preclude the presence or presumption of intention. Moreover, this need not commit me to asserting intent behind every repetition.

Intratextuality has its intentional counterpart in self-allusion (a more appropriate term at specific points in my thesis), and this is also a concept which has not been emphasised in *DRN*.

Other implications of this thesis include further insight as to how innovative and independent of Epicurus Lucretius is, and how rhetorical *DRN* is. One might also gain clarity about textual issues. Can we 'fix' any particularly problematic parts of the text? Are there conjectures to be made? How far are slight variations between repetitions likely? Sometimes it is clear that very slight variations or differences of orthography between multi-linear repetitions ought to be harmonised; at other times variation might be intended.[28] Such variation might even be a sign that Lucretius was working from memory of his own poem and occasionally makes a minor, perhaps accidental, change.[29] A major implication of this thesis for the text of *DRN* is of course the decision as to whether—and which—long repetitions belong in the text or not.

0.1 Methodology: Intertextuality, Allusion, Repetition

In this thesis I shall use methods appropriated for studies on intertextuality (which look at relationships between texts by multiple authors) to examine carefully the intratextual connections in the poem, not only studying the repetitions themselves, but crucially, the context of the repetitions, and the argument as part of which they occur.[30]

In general, where repetitions have been seen within *DRN*, they have not been explored along with their argumentative contexts. As a consequence they have not

[28] Bailey (1947), 164-5 discusses this, but repetitions are not used by him to solve textual problems, whereas I think they can be helpful in this regard.
[29] See too below, p. 120 , fn. 83.
[30] Kyriakidis (2006), 610 proposes such an approach; the article is an excellent example of this in implementation.

been seen as performing many different functions within the poem, and thus they are not perceived as playing an important role in the didactic strategy of the poem.

I want to explore the many functions of repetitions. These different functions are divided broadly in this thesis as being rhetorical, didactic, and what I call 'reflection of the world': this is a mimetic use of repetition specific to Lucretius which consists of using repetitions on many different scales, ranging from the alliteration of individual letters of the alphabet (which Lucretius himself compares to atoms at 1.897-914), to multi-linear passages, to create an image of the atomistic world within the text.[31] Small repetitions such as alliteration are useful in the final chapter on the mimetic function of repetition, but they do not form a focus of the thesis. Inevitably, some repetitions and internal allusions will serve more than one purpose and could theoretically fit into more than one of these functional categories.[32] What emerges from this study is the close connection between rhetoric and didacticism in Lucretius, and the singularity of purpose in *DRN*: with Classen, I have come to the conclusion that Lucretius' use of repetition is always rhetorical or didactic, even when it performs the complex function of mirroring the atomism of the world. Classen's conception of rhetoric in Lucretius is discussed further below, particularly in Chapter 3.

I use the notion of the intertext and the allusion to inform my concept of repetition and internal allusion.[33] Since I will use these concepts, some space must be given to the theoretical considerations of intertextuality and allusion.[34]

[31] See below 5.1, pp. 240-60.
[32] Cf. Chapter 4 in general.
[33] Although I discuss this further below, I tend to avoid intratextuality mainly because it is so close to the word 'intertextuality' that its helpfulness in describing the literary phenomenon of verbal connection plus argumentative connection might be lessened owing to confusion. Like Kelly (2008), 165, I think that it should be possible to use both terms. See too below, fn. 39.
[34] The term 'l'intertextualité' occurs first in Kristeva (1969). The word was not intended by the author to be considered along with or as synonymous for 'allusion', and was, according to her, misunderstood by those who picked up on the term—in 1974 she replaces the term with 'transposition'. For the

Allusion has come to be understood by scholars as a term which could be more 'narrowly' defined than intertextuality, in that it clearly conveys a notion of authorial intention.[35] Despite the fact that some use the term without necessarily implying authorial intention, it is difficult to deny that allusion always carries with it something of the author's intent.[36] But it is not my wish to exclude Lucretius entirely from his text: to remove the author from *DRN* is impractical, particularly given the rhetorical and didactic strategies at its core; and since I shall frequently discuss the text in terms of argument and sometimes aim, I cannot with consistent logic remove the author.[37]

I find allusion to be an appropriate description for the rhetorical and didactic phenomenon which pervades *DRN*, and shall use the terms 'internal allusion' and 'self-allusion' in the thesis, as well as 'allusion' as shorthand for these terms. These terms are especially appropriate where clear contextual connections are signposted by verbal repetitions, for the simple reason that 'allusion' connotes a deeper, argumentative meaning behind verbal echoes, while repetition is not conventionally used in this way. Unlike repetition, which may refer to mere verbal iteration, but can also indicate verbal iteration *in addition to* argumentative connection, allusion must *always* include argumentative connection as well as verbal connections.

---

relationship between Kristeva's intertextuality and 'allusion', see Pucci (1998), 14-16. Allusion is in turn replaced by Thomas (1986) who uses 'reference', as being less 'frivolous', but he later (1999), 2, adopts the more conventional 'intertextuality'.

[35] On intention including the subconscious, see, for example, Hinds (1998), 10-11; and Kelly (2008), 165-175, esp. 166. See Farrell (2005), 98, for the presence of intention in 'allusion' and 'reference', and its absence in 'intertextuality'. On the narrowness of 'allusion' and the comparative breadth of 'intertextuality', see Kelly (2008), 173.

[36] Kelly (2008), 165-75 argues convincingly for using allusion without necessarily referring to the author's intention.

[37] Though Lyne (1994), for instance, makes highly convincing arguments against the use of 'allusion' in discussion of literary texts, he is arguably too much concerned with finding 'facts' (at 188-9 especially). Finding himself unable to do so through using the concept of allusion, he feels uneasy and turns to 'intertextuality', in the hope that it will allow a more objective position from which to discuss a given text. But a search for wholly factual knowledge in a literary study is surely a flawed premise, and an impossible aim. That said, even if we cannot know something about a text for certain this does not mean we should not try to come to sensible and convincing arguments for what can be both possible and likely.

The highly polarised debate between intertextuality which precludes intention, and allusion which tends to presume it, is to my mind extreme, and here I agree with Kelly.[38] For the sake of simplicity I settle on the predominant use of the word 'allusion'.[39] I also use the term 'intratextual connection'.

In this thesis I frequently use the word repetition to mean simply verbal iteration, but it may also indicate a meaning behind the verbal repetition, referring not only to verbal iteration but also to the argumentative connection associated with the echo. The difference between the two uses of repetition will be clear in context. 'Repetition' may therefore include argumentative connection, but it need not. Repetition cannot, however, consist of argumentative connection *alone* without some form of verbal iteration also occuring in the immediate context.[40] Repetition in Lucretius therefore consists of two of more places in which there occur identical or synonymous words, and, where it is used to convey meaningful strategy, a connection of argument in the context of the verbal iteration.

It is important that the meaningful repetition and internal allusion which I am interested in are understood to constitute not only verbal repetition, but also argumentative and contextual repetition or similarity.[41] Generally, verbal repetition functions as an indicator of connection of argument between two (or more) specific passages in the poem, and thus, internal allusion or repetition will constitute both a 'marker' and a contextual 'bridge'.[42]

[38] Kelly (2008), 165-6.
[39] But on abandoning 'allusion' in favour of 'intertextuality', see, for example, Lyne (1994), *passim*; Hinds (1998), 47. See also above, fn. 33 for my general though not complete avoidance of the use of 'intratextuality'.
[40] This parameter is necessary for the topic's manageability; I suspect that where there is argumentative connection, there is always some form of verbal repetition in any case.
[41] That is, the similarity of the text surrounding the repetitions themselves. This is a principle similar to Knauer's *Leitzitate*, or 'guide-citations' (1964), 145 -7. Cf. Farrell (2005), 103-6. On 'thematic links' see Kelly (2008), 175.
[42] I use Farrell's 'intertextual marker' for this term, (2005), 100-1. I shall also use 'signpost', which occurs in Hinds (1998), 4.

I have said that verbal iteration may be of different lengths: whole passages of more than one verse; whole verses; long or short phrases; the occasional (rare) word (though other verbal and argumentative connections must be strong for the connection to be interpretable in such cases);[43] and even patterns of sound and individual letters.[44] They can also occur on different scales: occasionally I use the terms 'large-scale' and 'small-scale'. Large-scale repetition spans more than one argument; small-scale intratextuality or repetition occurs within the same small argument.

Although I have used writings on intertextuality and allusion to inform the methodology of this thesis, judging them to be applicable to study of one poem, there are some important differences which should be taken into account. In a single work, the pattern of thought is more likely to be consistent. Following on from this, some internal connections are perhaps less likely to be conscious than intertexts, and more likely to be subconscious, since they are part of this singular train of thought. On the other hand, one need not conclude from this that internal connections are less (often) significant: if Lucretius tends to use the phrase *mortale corpus* whenever discussing the inevitability of death, whether of a human body or the body of the planet, this is not insignificant for our understanding of first, what and how Lucretius thinks about death, and second, what he may wish to convey to the reader. If Lucretius clearly sees a connection, even if subconscious, between different (though related) arguments in the poem, such connections are an important aspect of a didactic poem, given their obvious emphatic, and therefore persuasive, uses.

It is unavoidable that some repetitions and allusions will appear 'stronger' to a reader than others, while another may not 'appear' at all. My method of identification of connections is therefore important. Internal allusion and repetition is identified

[43] The reiteration of an individual word may be counted as repetition only where the word is deemed rare. To determine rarity, as explained below, fn. 45, I use data from the PHI database.
[44] On alliteration and other short repetitions, see above, p. 15.

when a connection is visible (or striking) between two (or more) portions of text, and when the context of each is connected in argument or logic in some way (that is, it is significant).[45]

Different theoretical issues emerge when considering another kind of 'repetition' in Lucretius, where several items of vocabulary are repeated within a relatively short passage (usually up to, say, 25 verses), to such an extent that the feature is both noticeable and has some effect on the reader. For example, let us look at the following passage in Book 5:

> **inde mare**, **inde aer**, **inde aether ignifer** ipse
> **corporibus liquidis** sunt, **omnia** pura relicta,
> et **leviora aliis alia**, et **liquidissimus aether**
> atque **levissimus aerias** super **influit auras**,
> nec **liquidum corpus turbantibus aeris auris**
> commiscet: **sinit** haec violentis **omnia** venti
> **turbinibus**, **sinit incertis turbare** procellis,
> ipse suos **ignis certo** fert impete **labens**.
> nam modice **fluere** atque uno posse **aethera** nisu
> significat Pontos, **mare certo** quod **fluit** aestu
> unum **labendi** conservans usque tenorem. (5.498-508)

The first issue which emerges is easily dealt with: how do I determine 'effect on the reader'? My methodology here is the same as with other kinds of repetition and internal allusion: although I cannot determine effect on any other reader but myself, I construct certain boundaries which define whether a repetition is worth picking up or not, and whether a reader would be likely to pick it up, using 'visibility' of an allusion to identify it, and requiring argumentative connection or value to qualify it as worthy of examination.[46]

[45] Kelly (2008), 183-4, talks of the 'visibility' and 'openness' of an allusion, rather than readerly ability; this is an approach I also prefer. I have used the PHI Latin database to look for occurrences of a given phrase or word (at least where the repetition is verbal), both in Lucretius, and, where appropriate, in other authors. This data is not vital to my argument (though it is more important in discussing repetition of individual words, for which see fn. 43 above), but it is useful as an illustration of the 'validity' of a particular intratext, since I realise this could be something of concern. It can be useful for my argument where a particular verbal echo is very rare in Lucretius, and where a given phrase or word is used only within a specific context. In this case the 'marker' is no longer merely a marker, but is part of a repetition specific to a particular context.

[46] See fnn. 40 and 45.

The second issue is interconnected with the first: how does one determine whether repeated vocabulary such as in this example is the result of meaningful repetition, or the inevitable effect of discussion of a topic with limited vocabulary available? Is the repetition meaningful, or is what we are seeing the mere recurrence of vocabulary owing to the *egestas* of the language, and therefore not worthy of interpretation?[47] Being that this question is bound up with identification of the duplication in question as repetition or recurrence, it can be answered by first reasoning that if such repetition is striking, and noticeable by my criteria stated above, it may well be worthy of interpretation. One may say too that if repetitions like this are striking enough to be visible, then they would also have been visible to Lucretius. He did not see fit to remove them. Second, even if (as in this example) the vocabulary is not at all rare (which inevitably makes the duplications less striking or 'open'[48]), we might see if there is anything to be gained by interpretation of such small-scale allusion. The anaphora of *inde* at 5.498 (although anaphora does not fall under the umbrella term of internal allusion as defined in this thesis; nor does polyptoton though I do discuss it where appropriate) renders the verbal iterations which follow more 'open' and more 'visible'. Moreover, a very similar passage has already occurred shortly before this one, at 5.407-15 (which is discussed further in the thesis in Chapter 5). That passage also repeats 'important' vocabulary. The repetitions at 5.407-15 are arguably even more visible, since the repetitions might be seen to create an image of the cycle of the elements which is being described. Given how marked the previous internal allusions are, the occurrence of a similar strategy seen shortly after this might be said to be more meaningful and open to interpretation. Indeed, this type of repetition frequently occurs in Lucretius, and although at times the repetition may not qualify for

[47] See Lucr. 1.139.
[48] See pp. 18-19.

interpretation and may be determined to be inevitable recurrence, the frequency of this particular strategy, where it is sensibly determined as interpretable, might be said to generate a unity in itself of technique through the poem, in much the same way that internal allusions can generate unity of argument. As repetitions generate unity, so the repetition of repetitions might be said to generate unity of strategy.[49]

I think that in the first example above the repetitions may easily be said to be 'hammering in' the important concepts.[50] Here, the crucial point is, I think, the connection between the ether and its liquid quantity, since the concluding sentence of the passage states: *nam modice fluere atque uno posse aethera nisu | significat Pontos, mare certo quod fluit aestu, | unum labendi conservans usque tenorem* (5.506-8). Lucretius uses the ocean as proof that the ether also flows in like manner. The repetition of *liquidus* or *liquidissimus* in connection with *aether* and other light particles is especially striking, and it is easy to see that the repetition can be seen to be meaningful. That said, I am not insensitive to the fact that the reader of the thesis may be more sceptical about repetition of 'important' vocabulary, and where these types of small-scale repetitions are discussed, I try to alleviate critical concerns apart from any of these theoretical justifications and considerations, by illustrating the interest, the art, and the meaning behind the repetition.

A crucial tenet of my arguments about the function and meaning behind repetitions in Lucretius is that they often illustrate and generate unity of thought and mission in the poem. I shall give an example in which verbal repetitions 'signpost' a unity of thought, and different parts of a broad statement are drawn together, from Book 1 to Book 5. This example is useful because it includes different kinds of verbal iteration:

[49] Fotheringham (2004), 253-76 argues that Cicero uses repetition of keywords to generate a unity and a certain simplicity to a series of complex arguments. See esp. 266-7: 'verbal repetition within a passage gives it unity and detaches it from the surrounding context, and the repeated words contribute to the listeners' sense of topic. On the other hand, repetition of words and themes can be used to unify the whole text.'

[50] For the idea of emphatic 'hammering in' through repetition, see Bailey (1947), 162. Cf. p. 182, fn. 5.

phrase repetitions and individual word repetition (*ratio*). In Book 1 Lucretius gives a syllabus of *DRN* (1.127-35), and he gives a brief plan specific to Book 5 at 1.127-30:

> qua propter bene cum superis de rebus habenda
> nobis est ratio, **solis lunaeque meatus**
> qua fiant ratione, et **qua vi** quaeque gerantur
> in terris, tunc cum primis **ratione** sagaci
> unde anima atque animi constet natura videndum,
> et quae res nobis vigilantibus obvia mentes
> terrificet morbo adfectis somnoque sepultis,
> cernere uti videamur eos audireque coram,
> morte obita quorum tellus amplectitur ossa. (1.127-35)

This passage in Book 1 comes directly after the attack on religion, and so Lucretius introduces his syllabus, which seems justified after this assertion of the danger of religious adherence. The following passages from Book 5 show clear intratextual markers:

> praeterea **solis cursus lunaeque meatus**
> expediam **qua vi** flectat natura gubernans;
> ne forte haec inter caelum terramque reamur
> libera sponte sua **cursus** lustrare perennis,
> morigera ad fruges augendas atque animantis,
> neve aliqua divom volvi **ratione** putemus. (5.76-81)

> Quod superest, quoniam magni per caerula mundi
> qua fieri quicquid posset **ratione** resolvi,
> **solis** uti varios **cursus lunaeque meatus**
> noscere possemus **quae vis** et causa cieret,
> quove modo <possent> offecto lumine obire
> et neque opinantis tenebris obducere terras,
> cum quasi conivent et aperto lumine rursum
> omnia convisunt clara loca candida luce,
> nunc redeo ad mundi novitatem et mollia terrae
> arva, novo fetu quid primum in luminis oras
> tollere et incertis crerint committere ventis. (5.772-82)

solis (*cursus*) *lunaeque meatus*, as well as the use of *qua vi*, make for a significant repetition, since in the proem to *DRN* Lucretius implicitly invites the reader to ask 'how' certain phenomena come about. By 5.772-82 this question has been answered, thus ignorance (a gap of knowledge previously supplied with divine power) is replaced with scientific knowledge.[51] The reader is told in Book 5 what happens *in terris* (as Lucretius promised at 1.130), and it is notable that in the introduction to his

[51] Cf. 2.1090-8, and esp. 1095-8 for refutation of divine responsibility for heavenly motions.

explanation of the evolutionary process—recalling *qua vi quaeque gerantur| in terris* (1.129-30)—Lucretius 'marks' this continuum of logic with the familiar phrase *solis...cursus lunaeque meatus*, and with *quae vis* (5.774-5).[52] The internal allusion here illustrates clearly the connections between the necessity of scientific knowledge indicated in Book 1, the natural (not supernatural) reasons for celestial movements, and the similarly natural evolution of life on the earth. Lucretius uses repetition to justify the very existence of the poem, and continually induce the reader to continue with the poem, and even with Epicurean philosophy.

A general argument of the thesis is that Lucretius' use of argumentative connection is used as a technique of persuasion and even of rhetorical technique.[53] Classen usefully places repetition in a rhetorical framework and argues that Lucretius uses this 'to accustom the listener' to whatever term or concept he discusses.[54] He also makes the attractive suggestion that even where repetition appears merely aesthetic or emphatic (as Deutsch often concludes, for example), this too should be considered rhetorical, since the point of any aesthetically pleasing feature is to make a given treatise more acceptable to the addressee.[55] I subscribe to this broad understanding of rhetoric in Lucretius. The categories I put in place in this thesis, of rhetorical (meaning use or emulation of the rhetorical tradition), didactic, and reflective repetition, ultimately function under a wider umbrella category of rhetoric as conceived by Classen. In general, I believe that all meaningful repetitions in Lucretius are ultimately to be understood as means to persuade the reader, whether it is of a particular scientific claim, or something more general such as that she should continue

[52] Cf. the explanation of the origins of religion at 5.1161-1240.
[53] On the necessity of oratorical skill in scientific discourse, see *Orat.* 1.14.61.
[54] Classen (1968), 98. He suggests that the aim of repetition is for clarity, or for pleasant sound.
[55] Classen (1968), 98-9; Deutsch (1939). e.g. 97-120. At 21 she points out repetition of words such as *alius* and *etiam* which are not 'keywords' or 'of a forceful or significant nature', and thus keeps her focus on aesthetic matters which add to 'tonal emphasis'. Cf. Classen, 98-9 who points out the rhetorical nature of emphatic repetition.

with the poem and Epicureanism.

Conte views allusion more as a linguistic and rhetorical feature of literature rather than as an intentional creation by an author.[56] This view of allusion as a rhetorical trope, which he defines as a term which has been placed in new surroundings in order to exert a desired effect (and which can surely apply to self-allusion in Lucretius as well as the allusion between authors which Conte intends), can serve to rationalise the sometimes troubling approach taken to Lucretian repetition, which sees bracketing and excision of repeated lines, as well as to reconcile Lucretius' repetition with his aims of persuasion (Conte's desired effect).[57] Conte claims that 'the poetic dimension is created by the simultaneous presence of two different realities whose competition with one another produces a single more complex reality'.[58] Although in this statement he is discussing intertextual relationships, I believe the idea behind his claim is also applicable to a single text: Conte talks of a 'gap' between two texts which creates, in the end, a 'single reality'; in turn I use this approach to speak of the single reality, or the unity, generated through the network of intratextual connections.[59] A definition of internal allusion which takes into account the textual surroundings of a repetition, and so constitutes both an identifiable similarity and a contextual and argumentative connection,[60] will thus serve to articulate and represent the technique itself, as well as wider aims of the repetition of argument and words.[61]

[56] Conte (1986), esp. 26-7. Although Conte discusses allusion between authors, his reasoning can certainly be brought to bear to a study on a text's internal connections. Cf. Conte (1986), 23 for Conte's claim that allusion and poetic memory can act as part of a 'functional rhetorical matrix'.
[57] For the rhetorical trope, see Conte (1986), 23, 50.
[58] Conte (1986), 24, and 49: 'By a continual searching of the past in retrospective explorations, and through associative and directed recuperation of this past, memory will strive energetically to uncover material that can be used for its purpose'. Conte, 50, sees 'poetic memory' and 'rhetorical function' as nearly synonymous.
[59] Conte (1986), 37-9.
[60] On the importance of context to the identification of allusion, see Thomas (1986), 174 (= (1999), 116). Cf. Kelly (2008), 170: 'the possibility of reading some point to allusions is important to their identification'.
[61] This kind of internal allusion has not been the subject of scholarly work on Lucretius. Kennedy (2007), *passim*, uses the term 'intratextuality', but not in a way descriptive of intratextual connections: although he notes some 'elements' which occur in, for example, Book 3 to Book 5, 380, Kennedy uses

While I see in Lucretius' use of repetition and self-allusion the attempt to show awareness of and to give homage to the various literary traditions from which his work derives, as well as place himself as the next in line of the great poets and philosophers, I want to emphasise that his technique of repeating himself is a major part of a didactic strategy, which is pervasive in *DRN*.

the word to represent the idea of Lucretius' internalisation of worldly phenomena within a single text. This concept will be useful in Chapter 5 for my ideas about repetition as generating mimesis in the text. The term seems to have been coined by Sharrock and Morales (2000), and though Lucretius is not a focus of their work, their general approach is instructive for this thesis.

1

Poetical Predecessors

Recent work on repetition in *DRN* suggests that Lucretius' repetition is formulaic. This inevitably leaves little room for interpretation of repetitions as being interesting or meaningful.[1] The presence of formulas in epic hexameter is generally justified by the metrical demands of the verse, which naturally attributes little meaning or significance to the formulas.[2] Formulas and long repetitions are also seen as aiding the author or bard in composition—or in Lucretius' case, emulation of this—as opposed to being part of a reader-focused strategy.[3] But the situation is much more complicated than this. I will argue in this chapter that Lucretius is indeed deeply informed by Homer and other early Greek and Latin poetry in his repetitions.[4] But one can see that already as early as Homer, repetitions are being used in an artful, even didactic, way, and is reader-focused as opposed to author-focused. And they can be seen to function in ways which cannot be explained by metrical requirements or emulation of this alone. Lucretius' emulation of Homer in particular cannot be explained satisfactorily by simple imitation of a formal feature of epic.

This chapter comprises an analysis of how Lucretius is using Homer, and also other early models of repetition in hexameter poetry (Hesiod, Ennius, Empedocles,

[1] Ingalls (1971) supposes that repetitions helped Lucretius in composition; Minyard (1978) examines repetition in Lucretius in much the same way as has already been done for Homer; Wills (1996), 210 sees repetition in Lucretius as 'exact and formally scientific', though does not subscribe to repetition in Lucretius as being *metri causa*. Aside from Wills, who covers all Latin poetry and therefore cannot devote much space to Lucretius, there has been relatively little recent attention paid to Lucretian repetition in its own right.

[2] Cf. Moskalew (1982), 59 who mentions in particular Ingalls (1971).

[3] For the author-focused view of Homeric repetition see Lord (1960), 30: 'The stress in Parry's definition on the metrical conditions of the formula led to the realization that the repeated phrases were useful not, as some have supposed, [Bakker (1999), 167, points out that this refers to Bowra (1952), 231] merely to the audience *if at all* [my emphasis], but also and even more to the singer in the rapid composition of his tale. And to this almost revolutionary idea the camera's eye was shifted to the singer as a composer and to his problems as such.' I find more sympathy with Bowra's view than with Lord's; he suggests that formulas are useful *both* to the bard *and to the audience*.

[4] For the importance of awareness of Lucretius' literary environment and/ or heritage, see generally Kenney (2007b), esp. 302-3.

and Apollonius).[5] Lucretius' repetition is also compared to his contemporary Catullus' *carmen* 64. The chapter aims to establish internal allusion and repetition as meaningful and functional by exploring this phenomenon in texts which were influential for *DRN*.

A brief comparison of the frequency of repetition by these authors is helpful to gain a general picture of their use of the strategy. In terms of repetitions of phrases and verses as a percentage of the total number of lines in the author's corpus, Homer repeats 33 per cent and Hesiod 23 per cent.[6] Of whole verses, Lucretius' rate of repetition is 6 per cent.[7] In terms of repetition in general, one should note that these numbers are unlikely to be strictly representative of the relative frequency of repetition among these authors: the figures for Homer and Hesiod consider both phrase-repetitions and whole-verse repetitions; but the figure for Lucretius only considers whole-verse or near-whole-verse repetitions. Lucretius (more) frequently repeats smaller phrases and vocabulary on a smaller scale, so the Lucretius statistic is misleading here.[8] Apollonius studiously avoids repetition, and this is discussed further below. There are difficulties inherent in discussing Ennius and Empedocles in terms of statistics, given the fragmentary nature of the authors' texts.

---

[5] These authors were chosen because they are Lucretius' predecessors in the epic-didactic genre. Epicurus is discussed separately, in the introduction to Chapter 3. See Edwards (1971), 23 on Hesiod for consideration of originality in poetry versus mere recourse to traditional features of language which cannot therefore be original in themselves.

[6] The figures for Homer and Hesiod I take from Notopoulos (1960), 180, whose figures refer to 'repetitions of lines or phrases' (see in full 177-97). Notopoulos uses Kretschmer's (1913), 29, raw figures to come up with his percentages on Hesiod. But Müller (1984), 150 on Hesiod gives a figure of one in every eight lines, i.e. 12.5 per cent. Cf. Edwards (1971), 40-2. He points out, 41, that Kretschmer's raw figures refer 'not to the number of lines in each poem containing repetitions, but to *the number of phrases of various lengths which are themselves repeated*' (Edwards' emphasis), and some Hesiodic lines contain more than one repetition. Yet Notopoulos calculated his percentage for Hesiod by dividing the total number of repetitions by the number of lines in the Hesiod corpus. Edwards also points out, 41-2, that Kretschmer's figures also refer only to repetitions *within*, not between, the three Hesiod poems, so the percentage should be considered with this in mind.

[7] To obtain the percentage for Lucretius I used repetitions listed in Appendix B in Minyard (1978), 152-72. I added up the total number of repetitions, which came to 444, and calculated the percentage by using the total number of verses in *DRN*: 7415. Minyard categorised the repetitions according to whether they are 'exact', 'virtually exact', 'varied', or 'not truly verse-repetitions'. Since all are substantial repetitions, and only 28 were counted as 'not truly verse repetitions' I added the repetitions together. NB I am in no doubt that the percentage is in fact too low, since it only considers whole-verse (or near-whole-verse) repetitions.

[8] See my catalogue for an idea of the quantity of repetition in Lucretius.

1.1 Homer

As I describe above in the thesis introduction, scholarly attention to Lucretian repetition has been far from comprehensive.[9] What recent work there is, as Moskalew rightly points out, has tended to include a 'formulaic aspect', in which repetitions are viewed more as aiding the author in his composition, rather than the audience in their understanding.[10] Though there has been debate in Homeric scholarship as to the purposes served by repeated passages and formulas, and the reason for their presence in the text, in general most accept that Homeric repetitions are a result of, and also indicate, the oral composition and performative nature of the poem.[11] This may partly explain the prevailing attitude to Lucretian repetition thus far in the scholarship.

As well as obvious similarities between Lucretian and Homeric repetition, in many ways Lucretius differs significantly from Homer's style of repetition. Neither Lucretius' connections to Homeric repetition nor his deviations from it have been brought out in the scholarship. I argue that Lucretius is influenced by Homer in repeating himself, but that he also uses Homeric repetition for his own rhetorical and didactic aims.

Lucretius employs his own brand of Homeric formulaic phrases or hexameter endings in his poem (e.g. *in luminis oras* (which is Ennian in origin: *Ann.* 1.109 Skutsch); *lumina solis*; *primordia rerum*; *variaeque volucres*),[12] and like Homer also

[9] See Introduction, pp. 2-4.
[10] See above, pp. 26-7.
[11] Although Clark (2004), 119 points out that the debate about the Homeric poems' orality is far from settled. For the anti-oralist perspective, see most recently West (2011), 10. Cf. Bowra (1930). For the oralist view, see Silk (1987), 15. For a survey of orality and the Homeric Question see Fowler (2004), 220-32; for a summary of Parry and Arend's contributions, see Clark (2004), 117-19, esp. 118 for a helpful description of Homeric repetition. There is debate in Homeric scholarship as to whether repeated passages and phrases are beneficial to the bard or the reader, for which see fn. 3 above. For the concept of a 'transitional text, see below, fn. 20.
[12] For Greek antecedents to the feature of '*discordia taetra*'-type hexameter endings (into which category the Lucretian examples I mention do not, however, fall), see Harrison (1995), 138-49.

includes long repeated passages.[13] But I argue that in Lucretius these have a clear focus on the reader, and ultimately serve a didactic purpose, while things are more complex with Homeric repetition as we shall see.

Study of Homer is essential not only because of the authors' close connections in their manner of repeating, but also because of Homer's obvious importance in the canon. It has been said that repetitions 'constitute one of the most striking and persistent features of the Homeric poetry':[14] comparison is inevitable, and an understanding of Homer's influence on Lucretius is crucial.

The ancients held no distinction between the epic and didactic genres, meaning that Lucretius would have considered himself to be an epic poet.[15] Apart from the many other reasons for his repetition, Lucretius clearly imitates the epic style of repetition associated with oral performance. But whether Lucretius' Homeric-style repetition is the result of Lucretius' imitation of Homer direct, or mediation through Ennius of Homeric style is impossible to determine. That said, I think that it is sensible to talk of Lucretian emulation of Homer as long as one keeps this caveat in mind—not least because Lucretius was evidently just as aware of Homer as he was of Ennius.[16]

In general, ever since Parry's thesis of 1928, 'L'Épithète traditionnelle dans Homère. Essai sur un problème de style homérique', most scholars have been persuaded by Parry's conception of the oral origins of Homeric epic.[17] Formulas have

[13] On which controversy in Lucretius see below, Chapter 2, esp. 2.3, pp. 117-39.
[14] Shewan (1923a), 154.
[15] See e.g. Volk (2002), 70-1.
[16] For allusion to Homer, see, e.g. 2.24-6 and compare *Od*. 7.100-2; compare Lucr. 2.325-7 with *Il.* 2.457-8, 19.362-3, and *Od*. 14.267-8 (indicated by Smith (1992), *ad loc.*).
[17] For M. Parry's (1928) thesis see A. Parry (1971), 1-190. I refer to the pagination in A. Parry's (1971) translation as opposed to that in M. Parry's original thesis. Cf. Parry (1971), x-xli. Fowler (2004), 220-32, esp. 222-6 is eminently helpful on orality and Homeric scholarship from Parry onwards. Parry saw connection between the metrical necessity of a given epithet (itself a sort of repetition), the existence of Homeric formulas (again a kind of repetition), and orality. His much-quoted definition of a Homeric formula, 13, is: 'an expression regularly used, under the same metrical conditions, to express an

accordingly been viewed as a stock-pile of language in the poetic tradition and indeed in the bard's mind which allow swift recollection or composition of poetry in a bard's 'live' performance.[18] Repetitions in Homer have had a vexed history, and before the work of Parry, repeated passages were used to argue for the excision of passages, episodes, even entire books.[19] But the belief in oral composition led critics to accept that repetitions belonged in Homer's texts. Still this has the consequence that Homeric repetition is viewed as being author (or bard)-focused, and thus relatively simplistic, while in fact things are more complicated: Homer can be seen to use repetition in a highly sophisticated manner, and Lucretius seems to have been influenced by this.

Different views about the composition of the Homeric texts allow more room for formulas in Homer as functioning more actively than has been believed to date.[20] I

---

essential idea'. See Parry (1971), 13-14. For a different view of the formula, see Visser (1999), 376; and Hainsworth (1968), 33-9. Arguably Düntzer (1872) was highly influential for Parry, suggesting that of a number of epithets available to the bard or performer, one would be chosen by him which fulfilled the metrical demands of the verse, but which would have no or little bearing on the narrative at that point of the poem: e.g. Düntzer, 514. Cf. the work of Parry's supervisor, Meillet (1923), who had already seen Homeric poetry in terms of formulas, though he, 61, took the extreme view that Homeric epics are 'entirely composed of formulas handed down from poet to poet'.

[18] See Hainsworth (1993), 16-17 on formulas in general, 9-10 on repetitious formulas, and 19-21 on whole-verse formulas, couplets, and 'runs'. There is debate as to whether one should speak of the 'bard' (who improvises from 'a poetic store of formulas, themes, and tales' (A. Parry (1971), xvi) or the rhapsode who memorises. On this issue cf. Wolf (1999). I refer to a bard, while envisaging a combination of improvisation and memorisation of the Homeric poems. For a different kind of repetition, ring-composition, as either an aid to the performer or an aesthetic feature (which edges closer to the audience-focused strategies I propose), see Minchin (2001), 22-3, 181-202, and esp. 201: 'for holding the attention of a reader'. Minchin is sympathetic to a different, more sophisticated kind of ring-composition to that which inevitably occurs in a given narrative.

[19] On the reception of 'inconsistencies' and repetitions in Homeric scholarship, which were originally viewed as later editors' additions to the text of the 'original Homer', see Fowler (2004), 220-1; Clark (2004), 117-9, esp.118. Clark's words at 118 on the history of scholarship of Homeric repetitions are oddly reminiscent of the reception in the scholarship of Lucretian repetitions. Cf. Shewan (1923a), 154-5 who explains the trend; O'Hara (2005), 18. On repetition as evidence for multiple authorship, see Müller (1984), 149. On the debate before Parry, see: Bakker (1999), 163-4; Currie (2006), 4-5; and Kullmann (1984), 145-7.

[20] West (2011), passim and esp. 10. West's concept of a 'transitional' text, one which was partly oral, and partly written, may pave the way for repetitions in Homer to be seen as being focused on the reader, or perhaps encourage the view that they can be focused on reader *and* author. Cf. fn. 3, above. For the 'transitional' text cf. Foley (1999), 16. Fowler (2004), 222-3 admits that the debate is still essentially centered on orality versus a written text. For the general idea that the *Iliad* is an ethical text, see Macleod (2001), 294-310; cf. below, fn. 87, p. 55. Parry (1971) implies that formulas in Homer all behave similarly despite the variety of situations and contexts, and also that they are determined wholly by the metrical demands of the verse. See Parry, 9-18, esp. 9: 'There is only one way by which we can determine with some degree of precision which part of Homer's diction must be formulary: namely, a thorough understanding of the fact that this diction, in so far as it is made up of formulas, is entirely

find the idea of a 'transitional text', which was partly oral, partly written, appealing. But Lucretius was a reader of the text of Homer, in any case. And irrespective of how far one believes in the oral composition of the *Iliad*, it will become clear that Lucretius' repetition owes much to Homer's, though he ultimately makes his own mark on Homeric repetitions by turning it to his own didactic ends.

1.1.1 Phrases and Formulas

I propose that Homeric formulas[21] can perform many different functions. While certain expressions (such as τὸν δ' ἠμείβετ' ἔπειτα[22]) are obviously formulaic, according to Parry's definition, in that an 'essential idea', something consistent, is conveyed (in this case, a straightforward introduction for a character's reply), at times more complex uses of phrases are in evidence.[23] Identical words do not necessarily betray identical thoughts or ideas. I generally use the more 'open' terms, 'repetition', and 'internal allusion', in order to avoid the connotation of an 'essential' or consistent idea which is always conveyed by a repetition in Homer.[24] Inevitably, this case-study represents a mere survey of what could be said of formulas and repetitions in Homer.[25]

---

due to the influence of the metre.... formulary diction, of which the non-Ionic element is one part, was created by the desire of bards to have ready to hand words and expressions which could be easily put into heroic verse.... a complex technique of formulas, a technique designed in its smallest details for the twofold purpose of expressing ideas appropriate to epic in a suitable manner, and of attenuating the difficulties of versification.'

[21] As defined by Parry and others including Hainsworth (1993). See above, fnn.17 and 18.

[22] Parry's (1928) first example formula, 10.

[23] Müller (1984), 149: 'the behaviour of many doublets is incompatible with assumptions of formulaic origin, and the task of constructing a plausible hypothesis of composition is greatly narrowed down if we recognise the co-existence in the *Iliad* of formulaic and non-formulaic repetitions.'

[24] See above, Introduction, 0.1, pp. 16-8.

[25] Books 1 and 24 are the focus of the small study; there may be ring-compositional aspects to repetitions and echoes. See also Macleod (1982), e.g. 32-4, for many small correspondances between the books.

The following internal allusion occurs three times in the twenty-fourth book, and describes the way in which three characters find the person to whom they are to convey a message. The first comes where Iris has been sent by Zeus to summon Thetis, in order that she should persuade Achilles to return the body of Hector to Priam:

> **εὗρε δ'** ἐνὶ σπῆϊ γλαφυρῷ Θέτιν, **ἀμφὶ δ' ἄρ' ἄλλαι**
> **εἵαθ' ὁμηγερέες** ἅλιαι **θεαί**· ἣ δ' ἐνὶ μέσσῃς
> κλαῖε μόρον οὗ παιδὸς ἀμύμονος, ὅς οἱ ἔμελλε
> φθίσεσθ' ἐν Τροίῃ ἐριβώλακι τηλόθι πάτρης. (*Il.* 24.83-6)

We see a strikingly similar passage where Thetis comes to see Zeus, to hear what it is that he wishes her to do:

> **εὗρον δ'** εὐρύοπα Κρονίδην, περὶ δ' **ἄλλοι** ἅπαντες
> **εἵαθ' ὁμηγερέες** μάκαρες θεοὶ αἰὲν ἐόντες. (*Il.* 24.98-9)

The third passage is where Thetis visits Achilles by his ship, to persuade him to take the ransom for Hector's body and return it to Priam:

> ἶξεν δ' ἐς κλισίην οὗ υἱέος· ἔνθ' **ἄρα** τόν γε
> **εὗρ'** ἀδινὰ στενάχοντα· φίλοι **δ' ἀμφ'** αὐτὸν ἑταῖροι
> ἐσσυμένως ἐπένοντο καὶ ἐντύνοντο ἄριστον· (*Il.* 24.123-5)

The connections between the encounters are clear. The verbal connections draw together the different stages of the particular narrative at hand—the requests and the fulfilments of those requests. The strong aorist of εὑρισκω occurs in the same line initial position when each 'finder' meets the character they are looking for.[26] The character found is described as being in the midst of their fellow goddesses, gods, or companions respectively: the companions are described as being either ἀμφὶ (as in 24.83 and 24.124) or the synonym περὶ is used (24.98).[27] Thetis' description as being ἐνὶ μέσσῃς at 24.84 emphasises this further. These allusions 'signpost'[28] a motif or

[26] Shewan (1923a), 157 mentions the common Homeric practice of repeating common words in the same position in the hexameter.
[27] Cf. *Il.* 1.326-30 and 24.166-70.
[28] See above, p. 17, fn. 42.

typische Scene.[29] The task throughout each instance of the repetitions is the same: to persuade Achilles to give up the body of Hector. Here, clearly, something essential is conveyed and the repetitions generate a unity in the narrative. In addition, different parts of the same story are drawn together.

One might compare this technique of signposting with comparable instances in *DRN*. An example of allusion which carries associated ideas with it relates to the mortality of the human and of the world. The idea of the *mortale corpus* is integral to the fifth book: in the proem to Book 5, Lucretius mentions his previous assertion that the human soul had a birth, and that it is mortal (5.59-61), and then discusses his intention of arguing the same of the world, using almost identical language, and an identical assertion (5.65-6).[30]

Lucretius repeats the phrase *mortali corpore* four times in Book 5, and three times this phrase occurs in conjunction with the adjective *nativus* (although it does not always modify the noun), all within the broad argument for the world's participation in the process of birth and decline.[31] The first time where *nativus* appears with *mortale corpus* is where Lucretius begins his *fata*: his argument that the world is susceptible to death:

> Principio quoniam terrai **corpus** et umor
> aurarumque leves animae calidique vapores,
> e quibus haec rerum consistere summa videtur,
> **omnia nativo ac mortali corpore constant**,
> **debet** eodem omnis mundi natura putari. (5.235-240)

The second example is taken at the end of the larger argument found in 5.235-323, where Lucretius makes the case for the continuous decline of the elements of the

[29] Arend (1933) coined the term; Visser (1999), 370 restates this as a 'repeated scene'. For this type of analysis of repetition, using context, see Müller (1984), 152-3. For Visser (1999), 370, repetition in a 'repeated scene 'clearly indicates the influence of *traditional* composition' (Visser's emphasis). Visser hints at a connection (though it is not clear whether he means verbal or otherwise) between scenes of the same type, when discussing the type-scene of 'killing in battle', 370-2. See too Edwards (1992) for analysis of the Homeric type-scene.
[30] Cf. 3.331-6, 3.459-62, 3.526-30, 3.819-20.
[31] The phrase is also used of Epicurus at 5.6: *nemo, ut opinor, erit* ***mortali corpore*** *cretus*. Cf. 1.232.

world, and, by extension, concludes that the whole world too is mortal as well as *nativus*.

> Denique iam tuere hoc, circum supraque quod omne
> continet amplexu terram: si procreat ex se
> **omnia**, quod quidam memorant, recipitque perempta,
> totum **nativo ac mortali corpore constat**. (5.318-321)[32]

The third instance of *mortali corpore* together with *nativus/-a* is part of the conclusion to the section at 5.235-376 which argues for the world's subjectivity to death but also having had a birth: being *nativus*. This conclusion summarises the section by saying that things which have a body which is susceptible to death must also have had a birth, since they could not have 'spurned' the force of *aevum* from infinite time to the present:

> quare etiam **nativa necessumst** confiteare
> haec eadem; neque enim, **mortali corpore** quae sunt,
> **ex infinito iam tempore** adhuc potuissent
> **inmensi** validas **aevi** contemnere vires. (5.376-379)

The first *nativo ac mortali corpore* anticipates that found at 5.321. There is a ring compositional aspect to the two repetitions of the phrase, since the argument that the whole must be mortal and *nativus*, based on an assertion that the parts are mortal and *nativus*, is begun at 5.235-240, and is in completion at 5.318-321 (the argument is completed fully at 5.323). In addition, this idea is strengthened when one notes the echo in each place of the verb *constare*, and one might also note the identical position of *mortale corpus* not only in the verse itself but also in relation to the verb which follows. This, together with the presence of *omnia* is, as in the earlier Homeric example, clear allusion. The additional verbal repetitions can advance the argument for the purposeful nature of the allusion. The third example of the phrase *nativus/-a*

[32] Against Martin's (1969) edition and also Smith (1992), but with Bailey and Bernays, I take the text as *nativo ac*. See Bailey (1947), *ad loc*., who believes that the other occurrence of the phrase at 5.238 gives reason enough to take *nativo ac* rather than *nativum*. The real issue with the text in the MSS and as Smith takes it is the fact that the point Lucretius is making is that the body both had a birth and is subject to death. *totum nativum mortali corpore* does not fully illustrate this fundamental point. In my view *nativo ac* should be adopted since at 5.321 the phrase *nativo ac mortali corpore* is repeated, and convinces the reader that the 'whole' body of earth is both mortal and had a birth.

...mortali corpore adds another dimension and brings a more 'complete' unity to the wider argument in the text at 235-379, and even to the argument for the world's subjectivity to death seen in its entirety at 235-415 (this extract includes the vivid account of the decline of the world itself). In addition, on a basic level, the repetition of *nativus* and *mortalis* emphasises to the reader the status of the whole world as being both 'birthly' and 'deathly'.[33]

The idea that Lucretius, as a didactic poet with a clear mission to persuade his reader, is using repetition to signpost an idea which he hopes will become familiar is not outlandish, but objections may be raised in attributing a similar, earlier usage to Homer. The coincidence in the two authors of an apparently comparable phenomenon may be explained by Shewan's idea that '…not only does the iteration often take place in the same position in the verse, but the fact that the poet has come to that part of the line predisposes him to repeat the phrase that fitted it before.'[34] The poet may include these types of repetitions, then, subconsciously. But it is not difficult to extrapolate from this that the author wishes to convey some essential, unified idea to the reader. It is perhaps easier to argue that Lucretius builds on the subconscious repetition which is seen in Homer, in his particular aim to help the reader in his apprenticeship to Epicureanism. Lucretius has a more obvious need to connect the argumentative contexts, and 'hammer in' the assertion of the world's mortality.[35] Whether one accepts or not that this type of repetition in Homer is consciously meant to have some effect on the reader, it is sensible either way to suggest a cause-effect relationship between Homer and Lucretius. But there are more connections between

[33] See, e.g. Bailey (1947), 162-3.
[34] Shewan (1923a), 156-7. He builds on Cook's (1901), 338-45 idea that 'an expression once used haunts the memory and tends to be used again'.
[35] See p. 21, fn. 50 and p. 23, fn. 55.

Lucretius' and Homer's use of repeated phrases which corroborate such a cause-effect thesis.

Similarities (not necessarily identical and direct repetitions) in the language of the *Iliad* can be used to highlight differences; in the following example, in relationships between specific characters.[36] In Book 24 there are three instances where one character approaches another, and each time we are told the approaching character's position to the one being approached. Two of the three times, the adverb ἄγχι and a form of either καθίζω or ἵστημι used to illustrate the fact that a character draws, or is, close to another. But as well as this simple information about character position, the intratextual connection between passages might give the reader more information about the nature of relationships between different characters.

Given the relatively equal relationship between Iris and Thetis, it will not seem unexpected that where Iris approaches the mother of Achilles, we are simply given: ἀγχοῦ δ' ἱσταμένη προσέφη πόδας ὠκέα Ἶρις (24.87). Yet when Thetis goes to speak to Zeus, her position is not described as ἄγχι but rather she sits at Zeus' side: ἣ δ' ἄρα πὰρ Διὶ πατρὶ καθέζετο (24.100). The use of πὰρ could denote a sort of equality, but it might also be suggested that the difference in word choice and the action of sitting as opposed to standing illustrates the different nature of the relationship, or even the subservient nature of all deities when seen next to Zeus. What is important either way is that the relationships between Thetis and each of the two deities is different, and this appears to be signalled in the vocabulary. The differences in the relationships would not be obvious without the repetitions: the verbal similarities highlight these differences. The variation (both verbal and in terms of the characters' relation to each

[36] This is comparable to the concept of *oppositio in imitando*, for which see Thomas (1999), 127.

other) is thrown into relief by the repetition of the narrative situation. But one might also claim that the repetition is thrown into relief by the variation.

The difference in relationship is brought out more strongly at the third instance of this narrative situation of a visit and sitting or standing near to another character. Some verses later, where Thetis approaches her son, she is not standing as Iris did at 24.87, but sitting, as she has already done, at 24.100; she is not close, but very close: ἣ δὲ μάλ' ἄγχ' αὐτοῖο καθέζετο πότνια μήτηρ (24.126). This denotes a more intimate, familial, relationship, and neither character is subservient to the other. Four lines intervene before ἄγχι recurs for a fourth time in the book, when the reader learns that θάνατος καὶ μοῖρα κραταιή have stood near to Achilles:

> .... οὐ γάρ μοι **δηρὸν βέῃ, ἀλλά τοι ἤδη**
> **ἄγχι παρέστηκεν θάνατος καὶ μοῖρα κραταιή.** (*Il.* 24.131-2)[37]

The intratextual connections between this passage and those previously mentioned connect this passage with the previous contexts of ἄγχι/ παρά and ἵστημι/ καθέζομαι to give this sentence a new, more meaningful, and somewhat jarring dimension. Just as the gods and mortals have relationships with each other, so Achilles—like all mankind—has a relationship with death.[38] This is even more striking when we consider the passage from Book 16 where Hekabe tries to dissuade Priam from leaving, and mentions the Μοῖρα κραταιὴ which was spun for Hektor:

> οὔ θην οὐδ' αὐτὸς **δηρὸν βέῃ, ἀλλά τοι ἤδη**
> **ἄγχι παρέστηκεν θάνατος καὶ μοῖρα κραταιὴ**
> χερσὶ δαμέντ' Ἀχιλῆος ἀμύμονος Αἰακίδαο. (16.852-4)

The duplication of phrases in identical metrical position are striking and memorable. It has been argued that this is the case for the author writing.[39] But surely it is true not

[37] On death's proximity: 'But at my back I always hear | Time's winged chariot hurrying **near**', A. Marvell, *To His Coy Mistress* in 'Andrew Marvell: poems selected by Sean O'Brien' (2010).
[38] Cf. *Il.* 24.208-10.
[39] Cook (1901), 338-45 on phrase-allusions explains that expressions used once have a tendency to be used again, and also that their position in the line tends also to be duplicated. At 342 he says of Theocritus' imitation of Sappho: 'His memory was haunted by the word and, perhaps half-unconsciously, he sacrifices strictness of expression to a more or less mechanical repetition'. Cf.

only for the author, but also for the reader.[40] There is a clear message that just as immortals might have relationships with each other, and with mortals (for example, Thetis and Achilles), for man, death stands beside him as one of his companions. The human condition of mortality is stressed.

The following allusions illustrate to an even greater extent the stark difference in meaning between the immediate contexts of the repetitions, and thus highlight differences in perspective and opinion between characters. In Book 24, when Priam visits Achilles to recover Hektor's body, Achilles tells Priam that his heart is made of iron (compare the English expression: nerves of steel): here, the meaning of the phrase σιδήρειόν … ἦτορ is clearly about bravery:

> αὐτὰρ ἐπεί ῥα γόοιο τετάρπετο δῖος Ἀχιλλεύς,
> καί οἱ ἀπὸ πραπίδων ἦλθ' ἵμερος ἠδ' ἀπὸ γυίων,
> αὐτίκ' ἀπὸ θρόνου ὦρτο, γέροντα δὲ χειρὸς ἀνίστη
> οἰκτίρων πολιόν τε κάρη πολιόν τε γένειον,
> καί μιν φωνήσας ἔπεα πτερόεντα προσηύδα·
> ἆ δείλ', ἦ δὴ πολλὰ κάκ' ἄνσχεο σὸν κατὰ θυμόν.
> **πῶς** ἔτλης **ἐπὶ νῆας Ἀχαιῶν ἐλθέμεν οἷος**
> **ἀνδρὸς ἐς ὀφθαλμοὺς ὅς τοι πολέας τε καὶ ἐσθλοὺς**
> **υἱέας ἐξενάριξα**; **σιδήρειόν νύ τοι ἦτορ**.
> ἀλλ' ἄγε δὴ κατ' ἄρ' ἕζευ ἐπὶ θρόνου, ἄλγεα δ' ἔμπης
> ἐν θυμῷ κατακεῖσθαι ἐάσομεν ἀχνύμενοί περ·
> οὐ γάρ τις πρῆξις πέλεται κρυεροῖο γόοιο·
> ὡς γὰρ ἐπεκλώσαντο θεοὶ δειλοῖσι βροτοῖσι
> ζώειν ἀχνυμένοις· αὐτοὶ δέ τ' ἀκηδέες εἰσί. (24.513-526)[41]

But when the same metaphor is used earlier in the book—where Hekabe attempts to dissuade Priam from going to Achilles—it conveys something more of 'hard-heartedness', or perhaps generally unfeeling, while Achilles' use of the description for Priam shows that Priam is unfeeling specifically of fear.

Shewan (1923a), 156-7; Clark (2004), 123: 'there is a strong tendency for the repeated words and phrases in Homeric verse to take just these mechanical forms and to fall in just these positions in the line'; cf. Parry's original definition of the formula above at fn. 17.

[40] See pp. 18-20. A repetition, if visible and open ((Kelly (2008), 182-3), would be noticed; the earlier repetition would be recalled, by the reader even on a first reading of the poem. Anticipation must necessarily occur only on a second reading.

[41] One might wonder if ἔτλης (as at 24.519) might be read in place of ἐθέλεις at 24.203, given the identical repetition and the fact that identical repetitions of multiple verses are often found in Homer. I would prefer ἔτλης because the context of being courageous and daring clearly fits well with the use of ἔτλης here. See *LSJ* s.v., secondary meaning: with the infinitive the verb conveys courage or doing something in spite of one's feelings.

Ὣς φάτο, κώκυσεν δὲ γυνὴ καὶ ἀμείβετο μύθῳ·
ὤ μοι πῇ δή τοι φρένες οἴχονθ', ᾗς τὸ πάρος περ
ἔκλε' ἐπ' ἀνθρώπους ξείνους ἠδ' οἷσιν ἀνάσσεις;
πῶς ἐθέλεις **ἐπὶ νῆας Ἀχαιῶν ἐλθέμεν οἶος**
ἀνδρὸς ἐς ὀφθαλμοὺς ὅς τοι πολέας τε καὶ ἐσθλοὺς
υἱέας ἐξενάριξε· σιδήρειόν νύ τοι ἦτορ. 205
εἰ γάρ σ' αἱρήσει καὶ ἐσόψεται ὀφθαλμοῖσιν
ὠμηστὴς καὶ ἄπιστος ἀνὴρ ὅ γε οὔ σ' ἐλεήσει,
οὐδέ τί σ' αἰδέσεται. νῦν δὲ κλαίωμεν ἄνευθεν
ἥμενοι ἐν μεγάρῳ· τῷ δ' ὥς ποθι Μοῖρα κραταιὴ
γιγνομένῳ ἐπένησε λίνῳ, ὅτε μιν τέκον αὐτή, 210
ἀργίποδας κύνας ἆσαι ἑῶν ἀπάνευθε τοκήων
ἀνδρὶ πάρα κρατερῷ, τοῦ ἐγὼ μέσον ἦπαρ ἔχοιμι
ἐσθέμεναι προσφῦσα· τότ' ἄντιτα ἔργα γένοιτο
παιδὸς ἐμοῦ, ἐπεὶ οὔ ἑ κακιζόμενόν γε κατέκτα,
ἀλλὰ πρὸ Τρώων καὶ Τρωϊάδων βαθυκόλπων 215
ἐσταότ' οὔτε φόβου μεμνημένον οὔτ' ἀλεωρῆς. (Hom. *Il.* 24.200-16)[42]

Note again the repetition is in the same metrical position. We can see that an identical repetition (still striking despite the number of lines between the two passages) is used to highlight a difference in how one character may view another. To Hekabe, her husband is immovable, stubborn, and hard; to Achilles, he is courageous and unrelenting. Hekabe resents these qualities, while Achilles admires them.[43]

Of course, there are few characters in *DRN*, so the connection between the two authors here is first that repeated phrases often act as signposts to a broader, argumentative repetition or similarity. The allusions are shown through signposts. But the authors are also linked by the idea that subtle differences can often be perceived despite a broader unified point, and despite verbal similarities or even exact repetitions. These differences and similarities alike are shown by verbal repetition.[44]

[42] The mention of Μοῖρα κραταιὴ, though it is mentioned in reference to Hektor here, it nonetheless makes Achilles' death seem more imminent, clearer, or close-to, given that the phrase has already linked at 24.131-2 and 16.853-4 the two characters, by their qualification as essentially heroic characters who necessarily have a (close?) relationship with death.

[43] Cf. Hektor's speech to Achilles, at *Il.* 22.357, and Patroklus' to Hektor. There is also a broader point to be made here. There is a connection to Achilles (we recall Book 1, where futile attempts to reason with Achilles are made). He is described in identical language (with a heart of iron), and the reader might question which perception is the 'correct' one: which character is 'right'? The choice is between an unyielding approach or a more measured one. There are hints of didactic intent here: we are led to consider which way ought we to act, and more broadly, how we might live.

[44] There is more room for study here, e.g. about situations in which repetitions are likely. See, e.g. Clark (2004), 125-6 who suggests that ritual language might include more repeated formulas.

1.1.2 Multi-linear repetitions

In a longer repetition, different purposes may be served. On the one hand a lengthy repetition might be narratologically sensible, as when a message is relayed between characters. In the following example of a five-line repetition, Zeus sends a false dream to Agamemnon in the form of Nestor, ultimately to help the Trojans and do honour to Achilles. Zeus orders the dream to tell Agamemnon that he should arm the Achaeans, and that now is the time when they can take Troy, because Hera has persuaded the immortals to favour the Greeks:

> **θωρῆξαί ἑ κέλευε κάρη κομόωντας Ἀχαιοὺς**
> **πανσυδίῃ· νῦν γάρ κεν ἕλοι πόλιν εὐρυάγυιαν**
> **Τρώων· οὐ γὰρ ἔτ' ἀμφὶς Ὀλύμπια δώματ' ἔχοντες**
> **ἀθάνατοι φράζονται· ἐπέγναμψεν γὰρ ἅπαντας**
> **Ἥρη λισσομένη, Τρώεσσι δὲ κήδε' ἐφῆπται.**
> Ὣς φάτο, βῆ δ' ἄρ' ὄνειρος ἐπεὶ τὸν μῦθον ἄκουσε·
> καρπαλίμως δ' ἵκανε θοὰς ἐπὶ νῆας Ἀχαιῶν,
> βῆ δ' ἄρ' ἐπ' Ἀτρεΐδην Ἀγαμέμνονα· τὸν δὲ κίχανεν
> εὕδοντ' ἐν κλισίῃ, περὶ δ' ἀμβρόσιος κέχυθ' ὕπνος. (*Il*. 2.11-19)

The passage recurs again just nine lines later; here, the dream visits Agamemnon and relays the order that Zeus has given.[45] The only changes are where they are necessary to reflect the indirect nature of the order here:

> **θωρῆξαί σε κέλευσε κάρη κομόωντας Ἀχαιοὺς**
> **πανσυδίῃ· νῦν γάρ κεν ἕλοις πόλιν εὐρυάγυιαν**
> **Τρώων· οὐ γὰρ ἔτ' ἀμφὶς Ὀλύμπια δώματ' ἔχοντες**
> **ἀθάνατοι φράζονται· ἐπέγναμψεν γὰρ ἅπαντας**
> **Ἥρη λισσομένη, Τρώεσσι δὲ κήδε' ἐφῆπται**
> **ἐκ Διός· ἀλλὰ σὺ σῇσιν ἔχε φρεσί**, μηδέ σε λήθη
> αἱρείτω εὖτ' ἄν σε μελίφρων ὕπνος ἀνήῃ.
> Ὣς ἄρα φωνήσας ἀπεβήσετο, τὸν δὲ λίπ' αὐτοῦ
> τὰ φρονέοντ' ἀνὰ θυμὸν ἅ ῥ' οὐ τελέεσθαι ἔμελλον·
> φῆ γὰρ ὅ γ' αἱρήσειν Πριάμου πόλιν ἤματι κείνῳ
> νήπιος, οὐδὲ τὰ ᾔδη ἅ ῥα Ζεὺς μήδετο ἔργα· (*Il*. 2.28-38)

The third instance of the repetition comes 27 verses later, when Agamemnon tells the council of the elders directly what the vision (who he says resembled Nestor) told him to do, by quoting in direct speech the vision in his dream:

[45] For the dream see too below, p. 54.

> **θωρῆξαί σε κέλευσε κάρη κομόωντας Ἀχαιοὺς**
> **πανσυδίῃ· νῦν γάρ κεν ἕλοις πόλιν εὐρυάγυιαν**
> **Τρώων· οὐ γὰρ ἔτ' ἀμφὶς Ὀλύμπια δώματ' ἔχοντες**
> **ἀθάνατοι φράζονται· ἐπέγναμψεν γὰρ ἅπαντας**
> **Ἥρη λισσομένη, Τρώεσσι δὲ κήδε' ἐφῆπται**
> **ἐκ Διός· ἀλλὰ σὺ σῇσιν ἔχε φρεσίν·** ὡς ὃ μὲν εἰπὼν
> ᾤχετ' ἀποπτάμενος, ἐμὲ δὲ γλυκὺς ὕπνος ἀνῆκεν.
> ἀλλ' ἄγετ' αἴ κέν πως θωρήξομεν υἷας Ἀχαιῶν·
> πρῶτα δ' ἐγὼν ἔπεσιν πειρήσομαι, ἣ θέμις ἐστί,
> καὶ φεύγειν σὺν νηυσὶ πολυκλήϊσι κελεύσω· (*Il*. 2.65-74)

Here, it is clear that the repetition serves a narrative purpose: repetitions of this type often occur where a message or an order is given to one character, who must then convey it to another.[46] In addition, it is certainly possible, as many have agreed, that such iterations serve to aid the bard whether he is performing the epic from memory or improvising it.[47] But the repeated passages also draw together the different parts of the story, as I describe above (pp.36-8). Narrative unity is generated by repetition here. It is possible that Lucretius also perceived such a function in Homeric multi-linear repetitions and used it to didactic ends in his own poem. In *DRN*, such repetitions give obvious argumentative unity.[48]

These few examples from the *Iliad* have shown some of the ways in which repetition can function in Homer, aside from their use to the author when considering the requirements of the metre. Metrical considerations are accepted as a fair motive for particular repetitions at some place or other in Homer (whatever one believes about orality). Additionally, we have seen that repetition can signpost a particular scene-type and that phrase and multi-verse repetitions can connect different parts of a broader narrative. As well as the possibility that such verbal iteration is the result of subconscious connection in the mind of the poet between two or more episodes, these signposts cause the reader to similarly connect the episodes in his or her mind. They may also help the reader in understanding what will happen next in the text, and even

[46] Cf. 2.158-65 = 2.174-81.
[47] See above, fnn. 3, 18.
[48] For more on Lucretius' multi-verse repetitions, see below, 2.3.

allow them greater involvement in, and interaction with, the text. Repetition can also place emphasis on differences between one scene and another (or more). Repetitions can emphasise ideological variation among characters, or emphasise a more abstract idea such as the role of death in the *Iliad*, and its relevance to an individual.

In these ways, Homer is highly influential for Lucretius. Like the *Iliad*, *De Rerum Natura*, 'swarms' with repetitions.[49] In phrase-repetitions, formulas, and multi-linear duplications, Lucretius is clearly emulating the Homeric tradition. One could equally claim that Lucretius emulates Homer *through* Ennius, as I suggest above (p. 29) and which will be explained further below (pp. 62-5), though it is difficult to claim that Lucretius wanted to recall Ennius without having awareness of the inevitable and concurrent recollection of Homer.[50] Here, Thomas' concept of a 'window reference' is helpful. He defines this as 'the very close adaptation of a model, noticeably interrupted in order to allow reference back to the source of that model: the intermediate model thus serves as a sort of window onto the ultimate source, whose version is otherwise not visible. In the process, the immediate, or chief, model is in some fashion "corrected".'[51]

This model is applicable in some senses, but not in others, given that we are not looking at allusion in the normative sense, but rather at allusion of strategy: that of repetition. There are also some specific differences between Thomas' definition and what we observe between Lucretius and Homer (Ennius being in this case the 'window'). The first difference is that the ultimate source is not visible for Thomas, while Homer is clearly 'visible' to the reader of Lucretius. Lucretian repetitions exude Homeric (and Ennian) influence, and the Homeric influence on Lucretius would be

[49] Shewan (1923a), 154 on the *Iliad*.
[50] See too above, p. 29.
[51] From Thomas (1986), 188.

clear to any perceptive reader.[52] Secondly, there is no sign of 'correction' in the mere repetition, though the ideologies exhibited by Homer and Ennius are clearly corrected by Lucretius through his rationalisation or demythologising of the world and removal of active gods. The concept of active and interfering gods (particularly obvious in Homer) is anathema to Lucretius and a flawed concept according to Epicurean theology. Lucretius could certainly have been aware that his Ennian allusions might render any features which were 'originally' Homericisms, such as frequent repetition, difficult to place as either Ennian or Homeric features. In this way, Lucretius bridges the gap between the original Greek epic and the original Roman epic, and shows himself to be in some sense a successor but also a corrector of the epic tradition. He illustrates his self-placement in the epic-genre: it is not for *DRN* to be marginalised as an obscure philosophical, scientific text.

To liken himself so obviously to the first epicist (partly through Ennius) shows Lucretius' ambition for his work, as I have mentioned. The connection also allows Lucretius to show clearly the literary heritage of *DRN*, and give the poem a familiar tone. Although the subject of Lucretius' epic is obscure, to the reader the unfamiliarity is tempered by the familiar epic flavour. But there are deviations from Homer. As well as the obvious differences between the poetic task of Homer and the openly didactic one of Lucretius, which result in the use by Lucretius of repetitions which exert more overt persuasive force, Homer does not repeat himself within passages, as Shewan points out.[53] This we see in Hesiod in abundance.

[52] Cf. above, fn. 16 for specific allusion by Lucretius to Homer.
[53] Shewan (1923b), 162-3.

1.2 Hesiod

Hesiod composed the earliest didactic epic that we have: the *Works and Days*. The question as to whether Hesiod uses repetitions in what may be seen as a didactic manner is therefore fundamental for study of the didactic intentions and effects of Lucretian repetition. Notopoulos has claimed that Hesiod's (as well as Homer's) relatively frequent verse repetition is a 'litmus test of the oral style'.[54] To explore how far repetitions are a sign of orality, or at least how far they are associated with the idea of oral composition, study of Hesiod as well as Homer is crucial. Lucretius' emulation of oral style could be explained by reasoning that such allusion to orality would render the unfamiliar subject-matter of his poem familiar; in itself a didactic aim.[55]

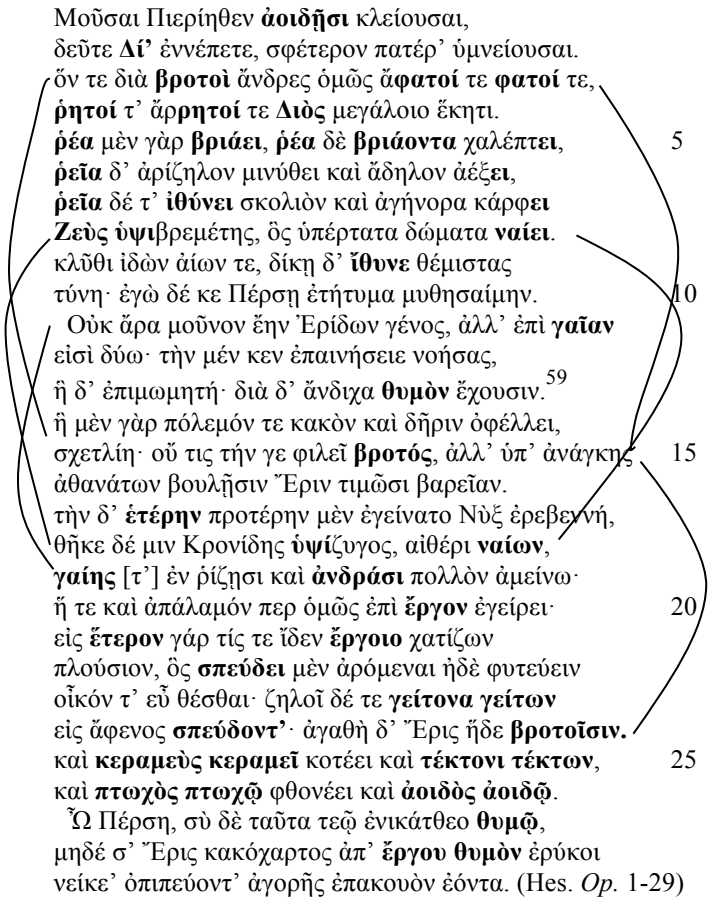
Although Hesiod's use of Homeric phrases and verses has been noted in the scholarship, little has been made of repetition of Hesiod within Hesiod.[56] While repetitions in Hesiod are not as numerous or as striking as in Homer, repetition in Hesiod, generally speaking, is not viewed as especially noteworthy.[57]

1.2.1 Polyptoton and Emphatic Repetition

Hesiod often repeats himself within a small section of text, as does Lucretius; in general, what Rosamund Deutsch says of Lucretius' repetition may also be said of Hesiod: in these cases of small-scale repetition, 'important' vocabulary is repeated

[54] Notopoulos (1960), 180.
[55] For this strategy in the poem more generally see especially Chapter 5. For the unfamiliarity of the poem's atomistic image of the world, see, e.g. Wardy (1988), 112-28, on which see further below, fn. 6, p. 239.
[56] For use of Homeric language by Hesiod, see Edwards (1971), 23-39. A search on the l'Année Philologique database for studies on Hesiodic repetition yields few results; cf. below, fn. 57.
[57] On repetition in Hesiod see Notopoulos (1960), 177-97; Edwards (1971), 40-54 devotes a relatively short but instructive section of his book to Hesiod's repetitions; Hopkinson (1982) writes a learned, though short, article on polyptoton in Greek and Latin poets, and notes that Hesiod tends towards this, and that it is not rare in later authors too; and Pucci (2007), e.g. 15-21 touches upon repetition in his recent commentary on the hymn to the Muse in the *Theogony*, in which he concentrates on Homeric emulation. For the extent to which Hesiodic language is 'traditional' (essentially meaning Homeric) or original, see also Edwards (1971), 23-39.

within a given argument.[58] As a case study, I have taken the first 29 lines of the *Works and Days* because they form a coherent and relatively self-contained section. Repeated words are highlighted in bold. I have excluded words which are repeated as a matter of course (such as conjunctions and particles), and where repeated words are separated by more than a few lines, I have added guidelines to point to the repetitions in question, which are also in bold text:



One can see simply from the proportion of bold text how great the number of repetitions is. I mention above in my methodology that there may be issues in identifying repetitions such as these, in a small section of text, as meaningful repetition.[60] I suggest first that the sheer number of repetitions makes it not unreasonable that repeated words which might otherwise have gone unnoticed by the

[58] See p. 23, fn. 55, above.
[59] Cf. Hes. *Op.* 112: ὥστε θεοὶ δ' ἔζωον ἀκηδέα θυμὸν ἔχοντες; Lucr. 1.44-9 = 2.646-51.
[60] See above, Section 0.1, pp. 19-20.

reader, would be more easily picked up, since the ear listens for repetitions (or the eye looks for them) once some have been perceived. In this case, even if one does not believe that each and every reiteration of a given item of vocabulary is worthy of interpretation, it is clear nonetheless that it is 'significant' vocabulary which has been repeated. Further, invoking again the frequency of repetition in such a passage as this, it is difficult to argue that every repeated item of vocabulary is the result of limited vocabulary and that the repetition in each case is therefore inevitable. The frequency makes purposeful repetition here infinitely more likely in statistical terms.[61]

It is possible that hymnic text exhibits more repetition, and the hymnic opening to this poem might well corroborate this idea, as well as being connected to the idea that ritual language in epic tends to include a greater number of repeated formulas.[62]

As seen above with Homer, repetitions show differences, even opposites (ἄφατοί τε φατοί τε). At *Op.* 3-4 the effortless alteration of language which changes utterly the meaning of the word might reflect the ease with which Zeus can reverse a man's fortunes. And Hesiod's interest in etymology, noted by Pucci ('Le etimologie testimoniano che questa poesia aspira a un linguaggio identico alle cose'), is clear here: language is used which is related to the object or person.[63] Polyptoton effectively illustrates the similarities of the people competing with each other (and the influence of Eris), but also their opposition or conflict with each other through the juxtaposition of the words (*Op.* 22-8, e.g. 25: ἀοιδὸς ἀοιδῷ). They are too similar to survive together in peace.[64] Pucci's statement above could equally be used of Lucretius, and an example from *De Rerum Natura* will be useful here for

[61] For a particularly obvious case of purposeful repetition of individual words in Hesiod, see *Op.* 150-1.
[62] This is an idea worthy of further study, as I mention above, fn. 44.
[63] Pucci (2007), 16. For reflection of the narrative or world being described within the text, see below, Section 5.3, pp. 280-89.
[64] For description of strife and similar repetition, cf. Hes. *Op.* 182-3.

comparison.[65] In the passage which I quote below, at the beginning of Book 5, a preference for small-scale repetition as seen in Hesiod is obvious. While in the example from Hesiod this occurs mainly as polyptoton, in Lucretius the technique is more open, and is not limited to duplication of vocabulary in different cases. As mentioned above in my methodology, p.20, I do not include polyptoton in my scheme of repetitions, partly in order to draw necessary parameters for the thesis, but also because in my view polyptoton is a different phenomenon worthy of separate study from the meaningful repetition which I describe in my thesis. That said, the similarity of strategy between Hesiod and Lucretius in respect of small-scale repetition is noteworthy, and it is possible that Lucretius has had Hesiodic repetition in mind when composing passages such as the one that follows, which contains exact repetitions and repetitions of cognates:[66]

Quis potis est dignum **p**ollenti **pectore** carmen
condere pro rerum maiestate **hisque repertis**?
quisve valet verbis tantum **qui** fingere laudes
pro **meritis** eius **possit** qui talia **nobis**
pectore parta suo quaesitaque **p**raemia liquit?
nemo, **ut** opinor, erit **mortali corpore cretus**.
nam si, **ut** ipsa petit maiestas cognita rerum,
dicendum est, **deus ille fuit, deus,** inclute Memmi,
qui princeps **vitae rationem invenit** eam quae
nunc appellatur sapientia, **quique** per artem
fluctibus e **tantis vitam tantisque** tenebris
in **tam** tranquillo et **tam** clara luce locavit.
Confer **enim** divina aliorum antiqua **reperta**.
namque Ceres fertur fruges Liberque liquoris
vitigeni laticem mortalibus instituisse;
cum tamen his **posset** sine rebus **vita** manere,
ut fama est aliquas etiam **nunc vivere** gentis.
at bene non **poterat** sine **p**uro **pectore vivi**;
quo magis hic **merito nobis deus** esse videtur,
ex **quo nunc** etiam per magnas didita gentis
dulcia permulcent animos solacia **vitae**.
Herculis antistare autem si facta putabis,
longius a vera multo **ratione** ferere.
quid Nemeaeus **enim nobis nunc** magnus hiatus
ille leonis obesset et horrens Arcadius sus?
denique **quid** Cretae taurus Lernaeaque pestis

[65] For the idea of the 'elemental' status of letters and language, and the close relationship with the objects themselves, see Friedländer (1941), 16-34 and Chapter 5 below, esp. 5.1, pp. 240-60.
[66] Wills (1996), 209-10 notes Lucretius' propensity to the feature, and writes, 209: '[polyptoton] is not atypical of the Greek didactic tradition.' See Wills, 208-12 and 225 for polyptoton in Lucretius in general.

hydra venenatis **posset** vallata colubris?
quidve tri**pectora** tergemini vis Geryonai
. . . . . (Lucr. 5.1-28)

Twice a repeated word occurs within the same line (*deus...deus* (5.8), *tantis...tantisque* (5.11)), and several times it occurs within five lines or fewer (often two) (*quis...qui...quisve...qui* (5.1-4), *ut...ut* (5.6-7), *qui...quique* (5.9-10), *vitae...vitam* (5.9-11), *posset...poterat*, (5.16-18), *vita...vivere...vitam* (5.16-18), *quo...quo* (5.19-20), *quid...quid...quidve* (5.24-8)).

As with the Hesiod passage, the reader might ask whether some of these repetitions are significant. But on closer inspection one can gain a picture of a persuasive rhetorical strategy in these lines which is driven by repetition. Each essential idea in this proem is highlighted by repetition: one gains the general idea that man could not live well without Epicurus' discoveries, (*repertis* (5.1); *(vitae rationem) invenit* (5.9)), which are compared favourably through repetition to the *reperta* of the gods (5.13).

Lucretius begins by asking the rhetorical question, who is worthy of composing a poem to sing Epicurus' merits (5.1-5), concluding that no mortal can be found: Epicurus himself was a god (5.6-8).[67] The simple repetition of *quis* in line-initial position (5.1 and 5.3) and *qui* in 5.3 (more striking because the verse begins with *quis* again after 5.1) builds up to the *qui* in 5.9 and 5.10 which provides the answer as to *who* precisely is to be considered a god, and what his achievement was: to discover rationality and place it out of the shadows into the light (5.9-12). This reads to me like a *quasi*-priamel in reverse: the build-up of questions (as opposed to negative statements) increases suspense until the moment one receives the answer, or the main point of the verses.[68] The notion of Epicurus' divinity is emphasised through

[67] For an instructive exploration of the concept of ὁμοίωσις θεῷ and Epicurus, see Erler (2002).
[68] On the priamel see Race (1982), and below, Sections 1.4.2, 1.5.1, and 3.1.1, pp. .146-9.

repetition at 5.8 and 5.19, and at 19 Lucretius has 'corrected' (to use Thomas' terminology) the previous statement of divinity to add the insistent *merito*.[69]

We see similarly from verses 24 to 28 the repeated *quid* which stresses through another rhetorical question the lack of impact that the threats which Hercules destroyed for mankind would now have, after the benefits conferred by Epicurus' philosophical *reperta*. The idea of divinity is questioned here: Lucretius invites the reader to consider a new kind of deity and a new kind of deification: the attainment of peace, or *ataraxia* (achievable through study and practice of Epicurean philosophy).[70] The anaphora here is more likely to be both meaningful and perceptible because of the identical strategy seen in verses 1-5. The ideas which are stressed by repetition center on Epicurus' discovery of rationality, and the effect which this can have on mankind's life.

On the three occasions where the *pectus* is mentioned (as the centre of intellect and also of fear, so it could be understood as 'mind'), the alliteration is remarkable:[71]

> Quis **p**otis est dignum **p**ollenti **pectore** carmen (5.1)
>
> **pectore p**arta suo quaesitaque **p**raemia liquit? (5.5)
>
> at bene non **p**oterat sine **p**uro **pectore** vivi (5.18)

Such small-scale intratextuality of technique (and of sense) connects and unifies the idea of the importance of a *purum pectus* and illustrates a development from a reader who requires a teacher with *pollens pectus*, to one who realises its importance for 'living well'.[72] Unlike other small-scale repetition which I mention above, I have not

[69] See above, p. 94, fn. 26.
[70] See too below, pp. 189-90.
[71] Cicero uses alliteration: *S. Rosc.* 6: *pecuniam tam plenam atque praeclarum*; 35: *is ui plurimum potest potentia* pugnat; 133: *plura praeterea praedia neque tamen ullum nisi plaeclarum et propinquum*.
[72] The development of the reader is explored further in 4.3. One might compare similar strategy of allusion found commonly in Lucretius (e.g. 5.1270: *quam **v**alidi primum **v**iolentis **v**iribus aeris*, similar versions of which are seen reconfigured in sometimes similar and sometimes different contexts: 2.277-89, 3.494, 3.509, 5.254, 5.266, 5.1098, 6.124, 6.137. This is a good example of Lucretius' strategy of using repetitions in different contexts to create different end-products or outcomes, which shows his

noticed alliteration of this kind in Hesiod. But I discuss it here because it might be considered an extension of the small-scale duplications which I have already examined, and it appears to be a feature unique to Lucretius. It occurs fairly often in Lucretius, and seems to be used in particularly important or dramatic verses in need of especial emphasis.[73]

This particular small-scale repetition also has a complex function which connects different ideas to say something entirely new.[74] The idea of a new meaning which is revealed to the reader as she progresses through the text has been convincingly argued by Mansfeld of the Presocratics, and this may be applied here.[75] The final repetition of *pectus* in *tripectora* at 5.28 connects the myth of Geryon with the idea of having a *purum pectus*, or of having the benefits of Epicureanism available to you; in this repetition Lucretius shows that one who believes in the creature with *tripectora* (Chimaera) does not have a *purum pectus*. The repetition of individual words and occasionally phrases has the outcome for the audience that an emphasis is placed on given vocabulary and so a particular premise: in general, the main points of the passage are stressed through repetition.[76] But additional connections between the falseness of myth and the notion of a *purum pectus* only reveal themselves as the reader reaches the final allusion in the network at 5.28: in this way, the reader might also be said to gain 'insight by hindsight'.

---

incorporation of the *elementa* analogy into his poem in a more general sense than has yet been supposed.

[73] e.g. *viva videns vivo sepeliri viscera busto* (5.993). On this kind of alliteration see esp. Hendren (2012), 414-15.

[74] See Section 0.1 above.

[75] Mansfeld (1995), 225-32. Of Presocratic proems, he proposes, 226-7, that 'By expressing themselves in an enigmatic fashion…they announce their theme in such a way as to attract attention and create suspense', and that the unclarity is 'intentional' (230). He concludes, 231: 'Why not just admit that these lines are intentionally obscure and can only be understood, if at all, by someone who has understood the doctrine of the poem as a whole…?'. He also talks of allusion in anticipation at 232; a concept most helpful to my suggestion of a similar strategy in Lucretius. It is worth noting that I find 'insight by hindsight' applicable in places outside of proems.

[76] Cf. p. 23, fn. 55.

Direct allusion to Hesiod together with some small-scale repetition at some of these points renders Hesiod an even more viable source for Lucretius for the small-scale repetition we have seen so far: at 5.912 Lucretius creates a parody of the Hesiodic golden race (*Op.* 109-20), using the notion of rivers of gold as the absurdity in the *reductio ad absurdum* strategy at this point: Lucretius here claims that anyone who suggests that creatures such as centaurs and the Chimaera could have existed when the world was new would also claim that there were *aurea… flumina* and that *gemmis florere arbusta suesse* (5.910-12).[77] The idea of golden rivers and jewel-studded trees is obvious pastiche of the golden age myth. In general archaising and epic language (verse 5.915 which is Ennian; the following verse at 5.916 which ends with the formulaic *semina rerum*; as well as the duplication of *arbusta* at 5.912 and 5.921) show that the old poets are the butt of the joke.[78] Lucretius' literary predecessors are both emulated and mocked in *DRN*.[79]

More rivers of gold are seen later in *DRN* when Lucretius describes the discovery of gold, when lightning melts the precious metals (gold, copper, and iron) which then flow in rivers (5.1241-80). An even more overt reference to Hesiod is seen again at 5.1269-72, where Lucretius says that men tried to use gold and silver for weapons as well as bronze, but found it useless:

> nec minus argento facere haec auroque parabant
> quam validi primum violentis viribus aeris—
> nequiquam, quoniam cedebat victa potestas,
> nec poterant pariter durum sufferre laborem. (5.1269-72)

Clearly this is subversion of the notion of a golden age: Lucretius makes a point that *tum fuit in pretio magis aes, aurumque iacebat | propter inutilitatem hebeti mucrone*

[77] For the full argument against the existence of centaurs and the Chimaera see 5.878-924.
[78] Cf. the description of Chimaera which as Smith (1992) tells us, is Homeric: 5.901-6; *Il.* 6.181-2.
[79] e.g. 1.635-920 for extensive rejection of Presocratic theories. Yet admiration is evident in Lucretius' emulation of Empedocles, in particular.

retusum; | *nunc iacet aes, aurum in summum successit honorem* (5.1273-5).[80] What is more, we see small-scale repetition: let us take a closer look at 5.1270: *quam **v**alidi primum **v**iolentis **v**iribus aeris*. This type of alliteration has been seen in the proem to Book 5 (at 5.1, 5.5, and 5.18) as I discuss above (pp. 49-50). Lucretius is evidently willing to include alliteration in passages which also contain the frequent repetition of 'important' vocabulary. The allusion to Hesiod at this particular point may strengthen an argument in favour of small-scale repetition as owing something to Hesiod's small-scale repetition. More convincing may be the suggestion that this clear and overt allusion to Hesiod illustrates Lucretius' serious engagement with the *Works and Days*.[81] Having seen some places where Lucretius repeats himself within relatively few lines, in a manner familiar from Hesiod, it is not unreasonable to see too influence in this respect, even if Lucretius ultimately makes the technique his own.

1.2.2. Repeating for Unity

A new dimension to the small-scale repetitions within the Hesiod passage (*Op.* 1-29) can be seen when one notes that the Hesiodic passage includes Homeric formulas and phrases. In the passage described above, Ζεὺς ὑψιβρεμέτης (*Op.* 8) is a combination found in Homer.[82] Its high frequency in Homer would likely be clear to the audience: the Homeric gods can be seen in Hesiod. The repetition of ῥέα/ ῥεῖα four times within three lines (*Op.* 5-7) is striking and memorable, and even more so when we know that it is seen in Homer:

[80] *in summum successit honorem* is strikingly close in wording and concept (of time moving on and effecting change) to the closing line of the book: *artibus ad summum donec venere cacumen* (5.1457).
[81] This is by no means the only example of allusion to Hesiod: see too the beginning of the account of the development of man, who begins as *durius*, at 5.925-101; this is surely reminiscent of the concept of the ages of man in Hesiod and especially of the bronze and the iron races. For the development of man in full, see Lucr. 5.925-1457 and cf. Hes. *Op.* 109-201.
[82] See: Hom. *Il.* 1.354, 12.68, 14.54, 16.121; *Od.* 5.4, 23.331; *h. Hom. h. Merc.* 329; Hes. *Th.* 601; Hes. *Fr.* 204. 97 (for which see Merkelbach and West (1967)).

ῥέα μὲν γὰρ φεύγεσκεν ὑπ' ἐκ Τρώων ὀρυμαγδοῦ,
ῥεῖα δ' ἐπαΐξασκε πολὺν καθ' ὅμιλον ὀπάζων. (*Il.* 17.461-2)[83]

This passage comes just after Zeus has given divine power to Automedon's horses, so that Automedon can easily fight and flee the battle. While technically the adverb refers to a mortal in the *Iliad*, and to a god in the *Works and Days*, each suggest a god's divine ease in turning the fortunes of man.[84] The duplication by Hesiod of Homer's strategy, as with Hesiod's use of the Homeric divine epithet, recalls the same idea of the powerful gods of Homer.

Another Homeric formula found twice in Hesiod is (ἀθάνατοι) Ὀλύμπια δώματ' ἔχοντες (*Op.* 110, 128). Here, Hesiod begins the description of the five ages of man: Golden, Silver, Bronze, the Age of Heroes, the Age of Man (Iron):

Χρύσεον μὲν πρώτιστα γένος μερόπων ἀνθρώπων
ἀθάνατοι ποίησαν **Ὀλύμπια δώματ' ἔχοντες**.
οἳ μὲν ἐπὶ Κρόνου ἦσαν, ὅτ' οὐρανῷ ἐμβασίλευεν·
ὥστε θεοὶ δ' ἔζωον ἀ**κηδέα** θυμὸν ἔχοντες[85]
νόσφιν ἄτερ τε πόνων καὶ ὀιζύος, οὐδέ τι δειλὸν
γῆρας ἐπῆν, αἰεὶ δὲ πόδας καὶ χεῖρας ὁμοῖοι
τέρποντ' ἐν θαλίῃσι, κακῶν ἔκτοσθεν ἁπάντων· (Hes. *Op.* 109-15)

Each time the formula is found (in Hesiod and Homer, for which passages see below), the gods are in the nominative case, and are the subject of the sentence. The repetition of specific vocabulary, as well as the repetitions' position as line-endings, points to the similarity in context: where this formula occurs, the gods tend to be in a position of ultimate power over mortals (rather than something more neutral such as holding a debate on Olympus).[86] In the passage above (*Op.* 109-15) from the *Works and Days*,

[83] Noted in Sinclair (1932), on *Op.* 5.
[84] See Griffin (1980), esp.81-102 on the crucial difference between humans and gods; esp. 82-3 on *Il.* 5.440-2: 'There is one great difference between gods and men. Gods are deathless and ageless, while men are mortal. When Apollo thrusts Diomede back into the limits of his mortality, he shouts, "Reflect, son of Tydeus, and fall back; do not try to be the equal of the gods. Never is the race of immortal gods on a level with earthbound men."' Cf. *Il.* 22.8.
[85] Cf. fn. 59 above.
[86] *Il.* 5.382-4 could be considered an exception to this. Here, Dione consoles Aphrodite after Diomedes has wounded her, by saying that the gods have suffered at the hands of men, and that they inflict woes on each other:

τέτλαθι τέκνον ἐμόν, καὶ ἀνάσχεο **κηδ**ομένη περ·
πολλοὶ γὰρ δὴ τλῆμεν **Ὀλύμπια δώματ' ἔχοντες**

the gods are referred to as being responsible for the creation of the first race. This is also the case where the second, Silver, race is created:

> Δεύτερον αὖτε γένος πολὺ χειρότερον μετόπισθεν
> ἀργύρεον ποίησαν **Ὀλύμπια δώματ' ἔχοντες**,
> χρυσέῳ οὔτε φυὴν ἐναλίγκιον οὔτε νόημα· (*Op.* 127-9)

The first occurrence of the formula in Homer is in the *Iliad* where Chryses addresses the Achaeans and prays that the gods may grant them sack Troy and return home:

> Ἀτρεΐδαι τε καὶ ἄλλοι ἐϋκνήμιδες Ἀχαιοί,
> ὑμῖν μὲν θεοὶ δοῖεν **Ὀλύμπια δώματ' ἔχοντες**
> ἐκπέρσαι Πριάμοιο πόλιν, εὖ δ' οἴκαδ' ἱκέσθαι·(*Il.* 1.17-9)

The same line ending is placed at 2.13, as part of a larger repetition at (2.11-5) which occurs three times in the *Iliad*, and which I discuss in detail above (pp. 40-1), where Zeus, unable to sleep, sends a dream to Agammemnon bidding him to arm the Achaeans:

> θωρῆξαί ἑ κέλευε κάρη κομόωντας Ἀχαιοὺς
> πανσυδίῃ· νῦν γάρ κεν ἕλοι πόλιν εὐρυάγυιαν
> Τρώων· οὐ γὰρ ἔτ' ἀμφὶς **Ὀλύμπια δώματ' ἔχοντες**
> ἀθάνατοι φράζονται· ἐπέγναμψεν γὰρ ἅπαντας
> Ἥρη λισσομένη, Τρώεσσι δὲ κήδε' ἐφῆπται.
> Ὣς φάτο, βῆ δ' ἄρ' ὄνειρος ἐπεὶ τὸν μῦθον ἄκουσε·
> καρπαλίμως δ' ἵκανε θοὰς ἐπὶ νῆας Ἀχαιῶν,
> βῆ δ' ἄρ' ἐπ' Ἀτρεΐδην Ἀγαμέμνονα· τὸν δὲ κίχανεν
> εὕδοντ' ἐν κλισίῃ, περὶ δ' ἀμβρόσιος κέχυθ' ὕπνος. (*Il*. 2.11-9)

The passage (underlined) is repeated almost verbatim twice more (with the replacement of ἑ with σε owing to the context, and other grammatical features altered too by necessity), where the dream gives the message to Agamemnon as relayed by Zeus (*Il.* 2.28-38) and where Agamemnon subsequently retells the dream to the Achaeans (*Il.* 2.65-74). The gods are clearly manipulating the mortals at these instances of the formulaic phrase, and the essential idea of the phrase—of divine

---

> ἐξ ἀνδρῶν χαλέπ' ἄλγε' ἐπ' ἀλλήλοισι τιθέντες. (*Il.* 5.382-4)

Generally one might consider whether the mention of divine dwellings in general is connected to their divine power purposefully, since their exceptional dwelling also indicates and is in line with their exceptional status.

power—is carried from Homer to Hesiod.

The formula occurs again in Book 15, where Ares asks the gods not to be hostile to him as he goes to avenge his son, Ascalaphus, at the Achaean ships. This shows a new aspect to the gods' power, since in this case it is their power over *each other* at the centre of the discussion:

> χερσὶ καταπρηνέσσ', ὀλοφυρόμενος δ' ἔπος ηὔδα·
> μὴ νῦν μοι νεμεσήσετ' **Ὀλύμπια δώματ' ἔχοντες**
> τίσασθαι φόνον υἷος ἰόντ' ἐπὶ νῆας Ἀχαιῶν, (*Il.* 15.114-6)

The line-ending also occurs in the *Odyssey*, where Penelope laments to Artemis, wishing that she had been struck down by the gods (*Od*. 20-78-80), and again where Odysseus, having returned home, says that the dwellers on Olympus have given a hard heart to Penelope above all other women.

> "δαιμονίη, περὶ σοί γε γυναικῶν θηλυτεράων
> κῆρ ἀτέραμνον ἔθηκαν **Ὀλύμπια δώματ' ἔχοντες**·
> οὐ μέν κ' ἄλλη γ' ὧδε γυνὴ τετληότι θυμῷ
> ἀνδρὸς ἀποσταίη, ὅς οἱ κακὰ πολλὰ μογήσας
> ἔλθοι ἐεικοστῷ ἔτεϊ ἐς πατρίδα γαῖαν.
> ἀλλ' ἄγε μοι, μαῖα, στόρεσον λέχος, ὄφρα καὶ αὐτὸς
> λέξομαι· ἦ γὰρ τῇ γε σιδήρεον ἐν φρεσὶν ἦτορ[87] (*Od.* 23.166-72)

In both of these passages divine agency over mankind is again emphasised. Given that the formula occurs nine times in Homer, and then twice in the *Works and Days*, Hesiod's use of the line-ending inevitably carries with it connotations from the *Iliad* and *Odyssey*: the Homeric gods are brought to the *Works and Days*.[88] The notion of powerful, responsible gods, and a traditional belief-system is emphasised, through 'signposting' repetition as well as content.[89] Allusion of this kind by Lucretius will be explored in detail in the course of the thesis.

[87] For more on the heart of iron, see above, p. 39, fn. 43.
[88] One might apply here what Elliott (2013), 78 says of Ennian and Vergilian 'quasi-formulaic' lines: '…even when those forbears are not explicitly quoted, they are nevertheless frequently present to the reader, because of the closeness of Ennius' imitation of these familiar, repeated Homeric expressions'.
[89] For the gods in Hesiod and his anxiety to preserve conventional belief in the poem, see Sinclair (1932), on *Op.* 108.

These examples have shown that Hesiod uses repetition in various ways; he employs small-scale repetition (in particular using polyptoton) to an emphatic, even didactic end; he uses duplication of words and their almost identical negatives (owing to the privative alpha), to illustrate differences. Hesiod also repeats longer phrases (and Homeric formulas) to give a unity to an argument about something as fundamental as the gods' relationship with mankind, and to connect this argument to the traditional beliefs of the time. Lucretius employs something similar to the Hesiodic strategy of small-scale repetition to his own didactic ends, and he also repeats phrases to convey and generate unity to a particular argument, and this is illustrated throughout the thesis, but especially in Chapter 4.

1.3 Ennius

Ennius is widely considered to have been an important stylistic model for Lucretius, and this may be seen in his use of repetition, as well as the use of epic formulas.[90] This is a feature related to repetition, though I do not class formulaic language in itself as a type of repetition in this thesis. In Ennius formulaic language consists sometimes of Homeric 'formulas' rendered into Latin and sometimes of Ennius' own formulas.[91] Ennian repetition often involves formulaic phrases, but formulas do not need to be used frequently to be considered formulas.[92]

[90] Gigon (1977), 167: 'Dass die Kunstsprache des Lukrez sich auf diejenige des Ennius stützt, liegt auf der Hand'; Harrison (2002), 4-9, esp. 6, talks of connections between Ennian style and the proem to *DRN*, including close linguistic connections, and links to the lost Ennian *Iphigeneia*; Elliott (2013), 83 points recommends, among others, for the relationship between Ennius and Lucretius: Skutsch (1985), 12; Gale (1994a), 106-9; Gale (2000), 68, n. 34, 239, n. 29; Kenney (2007a), 96; Cf. West (1969), 23-34; Gigon (1977), 167-96; Hardie (1986), 193-219; and Mayer (1990), 35-43. See too Elliott (2013), 115-17.

[91] We have also seen Homeric formulas in Hesiod (see Section 1.2 above). Elliott (2008) and (2013) terms Ennius' own formulaic phrases as 'quasi-formulaic'. Formulas are also in evidence in Lucretius (e.g. *in luminis oras* (Ennian in origin; repeated four times in *DRN*)). In Lucretius these tend to be repeated.

[92] Parry (1971), 44; Clark (2004), 119.

1.3.1 Phrases and Formulas

Although repetition in the preserved fragments of the *Annales* does not include repetition of multiple or even complete verses, we do see that phrases (sometimes 'quasi-formulaic') and part-lines (often line-endings) are repeated, sometimes with small changes, and sometimes identically.[93] In the following example of a verbal repetition Ennius recalls language from the *Iliad*:

> Νέστωρ αὖτε μάλιστα Γερήνιος οὖρος Ἀχαιῶν
> εὔχετο χεῖρ' ὀρέγων εἰς **οὐρανὸν ἀστερόεντα**· (Hom. *Il.* 15.371-2)[94]
>
> qui **caelum** versat **stellis fulgentibus aptum** (*Ann.* 1.27)[95]
>
> **caelum** prospexit **stellis fulgentibus aptum** (*Ann.* 3.145)
>
> **vertitur** interea **caelum** cum **ingentibus signis** (*Ann.* 6.205)
>
> hinc nox processit **stellis ardentibus apta** (*Ann.* 10.348)

I suggest that in Ennius, the repetition in particular of the phrase *stellis fulgentibus/ingentibus aptum/a* is often associated with divine power, and in the case of *Ann.* 3.145, an implication of devotion and piety.[96] Skutsch places *olli de caelo laevom dedit inclutus signum* (*Ann*. 3.146) immediately after *caelum prospexit stellis fulgentibus aptum* (*Ann.* 3.145), supposing that a prayer scene is intended here.[97] Meanwhile, *Ann.* 1.27 is a reference to Atlas, according to Skutsch, and although 6.205 does not tell us who is turning the sky, or indeed if any divine being is responsible for the action, Skutsch tells us that it appears in the context of a soliloquy

[93] There are obvious complications in studying repetition in fragmentary texts; at times it may be difficult, even impossible, to judge whether a phrase or verse extant in two separate sources was a repetition in Ennius or has been quoted by two separate authors.
[94] The similarity between Hom. *Il.* 15.370f. and Enn. *Ann.* 3.145 is pointed out by Skutsch (1985), 301.
[95] The source of the first, second, and fourth Ennian passages is Macr. 6.1.9. The third passage comes from Macr. 6.1.8. Cf. Man. 1.305-7:

> has inter fusus circumque amplexus utramque dividit
> et cingit stellis ardentibus Anguis,
> ne coeant abeantve suis a sedibus umquam.

[96] Cf. Hom. *Il.* 15.371-2. I would like to record my sincere thanks to Virginia Fabrizi for a helpful discussion about Ennius.
[97] Skutsch (1985), *ad loc.*

by Jupiter, and therefore we might again be able to claim association with divinity.[98] The use of *vertitur* does suggest agency behind the turning. Moreover, if Skutsch is correct about the fragment's placement in Book 6, then the reader would already be aware that Atlas is repsonsible for the sky's rotation, and so the mention of the sky turning may be sufficient to recollect the divine agency behind the motion. The use of a similar phrase to describe the night sky at *Ann.* 10.348 is not explicitly connected to divine power by Skutsch, though it may be appropriate to suggest an implicit connection to divinity given the associations built already between the stock phrase and divine power, by this point in the *Annales*.

It may be that the Ennian line ending holds a more complex function than Parry's formula, which as I mention above, is partly defined by the conveyance of 'an essential idea'.[99] While it is doubtless true that an essential idea is transferred by each instance of the formulaic phrase *stellis fulgentibus/ ardentibus aptum/apta* (or its looser equivalent *caelum...cum ingentibus signis*), this also means that the context of each repetition may be carried from one repetition to another, and the repeated phrase acts as a signpost; there is not enough of the surrounding context remaining to analyse the repetitions more fully. It is easy to see however that Ennius is not opposed to phrase-repetition, and that he also willingly varies these repetitions, as we shall see of *DRN* in later chapters.

The passages apparently carry influence to Lucretius, Vergil, and Manilius (among others).[100] In Lucretius the repetition from Ennius signifies a radical change:

[98] Skutsch (1985), on 6.202 and 6.203-4. Skutsch places the following fragment directly before 6.205:

> Tum cum corde suo divom pater atque hominum rex
> effatur (*Ann.* 6.203-4)

[99] See fn. 17 above.

[100] In terms of repetition, Lucretius and Ennius do not tend to be discussed as a pair, but Poteat (1912), 19 does mention Ennius and Lucretius when discussing a 'piling up of repeated words' in Vergil.

> dissolvont nodos omnis et vincla relaxant.
> Autumnoque magis **stellis fulgentibus** apta[101]
> concutitur **caeli** domus **undique** totaque tellus (Lucr. 6.356-8)

For Lucretius there has been a shift from man's dependence on, and subservience to, divine power, to his acquisition of scientific knowledge. In the *Annales*, Ennius talks of the movement of the sky, which is *stellis fulgentibus/ ardentibus* (the participles are synonymous) *aptum* (*Ann.* 1.27, 3.145, 10.348). The implication in general is that a god (at 1.27 Atlas for example) is turning the skies about him, or at least that there is some connection to divine beings. The repetition of Homer's 'starry sky' in the Ennian passages from the description of Nestor's prayer to Zeus emphasises a reading which sees devotion to the gods, and stresses the ultimate power of the divine.

There is a later intertextual relationship between Anchises' prayer in the *Aeneid* and Nestor's in the *Iliad*. Given Lucretius' use (before Vergil) of the Homeric/ Ennian (predominantly Ennian) phrase of the starry sky, this might cause the reader to see differently the passage with Anchises, and read his prayer and the divine response in a different way.[102] For Vergil, the Lucretius passage would be an inescapable part of the intertextual nexus. The three passages are compared, and equivalences or direct translations are underlined or put in bold:

[101] I suggest *apta* (a conjecture by Turnebus, adopted by Bailey (1947)) rather than Martin's *alta* (and in OQ): surely a more suitable suggestion here given Enn. *Ann.* 1.27, 1.145, and 10.348 (and also to an extent, given *Aen.* 4.482, 6.797, and 11.202).

[102] There is clear intertextuality in the way the passages continue, in addition (in particular, the εἴ ποτέ at *Il.* 15.372 presupposes *si* and the future perfect tense of *flectere* at *Aen.* 2.689, and similarly *ullis* recalls τίς in the same lines:

> **Ζεῦ πάτερ εἴ ποτέ τίς** τοι ἐν Ἀργεΐ περ πολυπύρῳ
> ἢ βοὸς ἢ οἰὸς κατὰ πίονα μηρία καίων
> εὔχετο νοστῆσαι, σὺ δ' ὑπέσχεο καὶ κατένευσας,
> τῶν μνῆσαι καὶ ἄμυνον Ὀλύμπιε νηλεὲς ἦμαρ,
> μηδ' οὕτω Τρώεσσιν ἔα δάμνασθαι Ἀχαιούς. (*Il.* 15.372-6)

> 'Iuppiter omnipotens, precibus **si flecteris ullis**,
> aspice nos, hoc tantum, et si pietate meremur,
> da deinde auxilium, **pater**, atque haec omina firma.' (*Aen.* 2.689-91)

at pater Anchises oculos ad sidera laetus
extulit et **caelo palmas cum voce tetendit** (*Aen.* 2.687-8)

Νέστωρ αὖτε μάλιστα Γερήνιος οὖρος Ἀχαιῶν
εὔχετο χεῖρ' ὀρέγων εἰς οὐρανὸν ἀστερόεντα (*Il.* 15.371-2)

dissolvont nodos omnis et vincla relaxant.
Autumnoque magis **stellis fulgentibus apta**
concutitur **caeli** domus **undique** totaque tellus (Lucr. 6.356-8)

Shifting focus back to Lucretius, the allusions in *DRN* to Ennius and Homer purposefully undermine the theology behind the earlier authors' writing. Where we see *stellis fulgentibus* in Lucretius—as well as *caelum* (seen at *Ann.* 1.27, 3.146, and 6.205) and *undique* (at *Ann*. 3.144 preceding *Ann.* 3.145 according to Skutsch), which further signpost the allusion—we can see clearly an undermining of the traditional view of godly influence. Lucretius wants to explicitly reverse the ideologies of his epic predecessors. The skies are governed by fixed rules, not a god's whim.[103] The verbal connection highlights how differently Lucretius sees the world in comparison to his predecessors.[104] This also shows clearly the serious engagement of Lucretius with his antecedents. Stylistic influence of Ennius on Lucretius is well-accepted. Now, we see engagement with content: why not then too influence of strategy, of repetition?

Looking at Vergil again, the meaning behind the close allusion by Vergil at *Aen.* 2.687-91 to the prayer of Nestor at *Il.* 15.271-6 and the associated passages in Ennius' *Annales* is complicated by this use by Lucretius especially of the phrase *stellis fulgentibus*, which is strongly associated with powerful gods, but which is also clearly undermined by Lucretius.[105]

[103] Cf. Epicur. *Epist. ad Hdt.* 76-80.
[104] For repetitions and allusions as bringing out differences, see esp. 2.3.2.
[105] Gale (2004) is of the view that different readings are invited by Vergil's allusions to Lucretius. Another possibile interpretation of such allusion is that Vergil is remythologising Lucretius; of this Hardie (1986) and Giesecke (2001) are proponents.

A further dimension to the (already quite complex) intertextual relationship is added when we note Vergil's use three times of the line: *Atlas axem umero torquet stellis ardentibus aptum* (4.482, 6.797, and 11.202).[106] This appears to be in line with the reading of the gods' power which we have from Ennius (particularly *Ann.* 1.27, which refers to Atlas, and to a lesser extent, 6.205) and Homer. That is, until we note an allusion to Lucretius, this time in Book 5:

> ultimus Aethiopum locus est, ubi maximusAtlas
> **axem** umero torquet **stellis ardentibus aptum**:
> hinc mihi Massylae gentis monstrata sacerdos (*Aen*. 4.481-3)
>
> extra anni solisque vias, ubi **caeli**fer Atlas
> **axem** umero torquet **stellis ardentibus aptum**.
> huius in adventum iam nunc et Caspia regna (*Aen*. 6.796-8)
>
> busta, neque avelli possunt, nox umida donec
> in**vertit caelum stellis ardentibus aptum**.
> Nec minus et miseri diversa in parte Latini (*Aen.* 11.201-3)[107]
>
> trans maria alta pedum nisus ut ponere posset
> et manibus totum circum se **vertere caelum**. (Lucr. 5.914-5)

Vergil connects the notion of 'turning the sky' from Lucretius with the sky's 'epithet' of being *stellis…aptum* from Homer and Ennius (I refer especially to *Ann.* 1.27 and 6.205). The result is complex. The Ennian (and later Vergilian) image of someone turning the sky is reduced to absurdity in Lucretius.[108] In Lucretius the lines conclude a refutation of mythical beginnings of the world, and so Lucretius rejects endorsement of this idea by intertextual connection.[109]

We see here the employment of repetition by Lucretius in order to allude to previous writers' ideas or conceptions which he himself wants to reject. Ennius, meanwhile, alludes to other authors in order to strengthen the idea at hand, for example divine power. Ennius also uses internal repetition to strengthen ideas of

[106] Cf. *Aen*. 8.137: *aetherios umero qui sustinet orbes* (of Atlas), and *Aen.* 8.141: *caeli qui sidera tollit* (also of Atlas); *Aen* 9.93: *torquet qui sidera mundi*. All passages are indicated by Skutsch (1985), 186.
[107] For more context see *Aen.* 11.197-206.
[108] See 5.878-915 for the fuller context of the refutation of myth-based theories of the origins of the world.
[109] This argument is mentioned above in the discussion of the golden race. The Ennian passages (*Ann.* 1.27, 3.145, 6.205) and the other Lucretian passage at 6.356-8 lead us to these allusions, and allow a different reading of these particular parts of the *Aeneid*.

divine power through intratextual means. This is also a strategy Lucretius uses to show unity to his philosophical and scientific arguments and to emphasise a given point.

1.3.2 Repetition of Homeric Formulas

We have already seen some of Ennius' interpretation and reconfiguration of Homeric language. Ennius' famous claim to have re-possessed the spirit of Homer has long been thought justified in light of what Homericisms can be seen in what we have of his texts.[110] Indeed, the very fact that Ennius makes the explicit reference to Homer suggests a wish for emulation or imitation, and this is even clearer when one considers the nature of the reference, as being about transmigration of Homer's soul.[111] As I have mentioned, one of the three ways in which Ennius is thought to imitate Homer is in his use of formulas.[112] One should be aware, then, as above, that this may be something distinct from repetition, or that there may be occasions where there is a crossover, and something is both formulaic and repetitive. As stated above, exploration of Ennius' use of formulas and repetition is important for an

[110] See Skutsch (1985), 149-52 on the dream and for sources of testimonia. Cf. e.g. Gigon (1977), 169: 'Ennius hat sich wie bekannt seinem Publikum als der römische Homer vorgestellt.' More recently, see Elliott (2013), 75-134; Elliott's appendix 2, 303-7; on the idea of the connection between Homer and Ennius; Elliott also refers us to Cic. *Orat*. 109 with Prinzen (1998), 182-4. Cf. Lucr. 1.121-6:

> Ennius aeternis exponit versibus edens,
> quo neque permeant animae neque corpora nostra,
> sed quaedam simulacra modis pallentia miris;
> unde sibi exortam semper florentis Homeri
> commemorate speciem lacrimas effundere salsas
> coepisse et rerum naturam expandere dictis.

[111] Skutsch (1968), 8 suggests the Pythagorean aspect of the dream is 'secondary' to the idea that Ennius is the new Homer. Aicher (1989), 230 argues that the Pythagoreanism of the dream also allows Ennius to explain the 'Greekness of style' in his work.

[112] For Ennian use of Homeric formulas, see: Moskalew (1982), 55-7; Skutsch (1985), *index locorum* (Elliott tells us that references to Hom. *Il.* more than double references to *Od.*); and Wills (1996), *index locorum*, s.v. *Ennius*. The other two modes of Homericising are through metre and in Ennius' use of extended episodes from Homeric texts, 'and using them, strikingly, in a culturally alien context to describe the events and actors of Roman history' (Elliot (2013), 75).

understanding of Lucretius' use of the strategy, since it has been made clear that there is much of Ennius to be seen in Lucretius.[113]

Elliott explores Ennius' use of Homer in Chapter 2 of her book by looking at the use of the 'Vergiliocentric' sources for Ennius. These sources, Elliott argues, primarily concerned as they are with Vergil, shed light not only on the relationship between Homer and the *Annales* but also on the relationship between the *Aeneid* and the *Annales*.[114] The appropriation of Homeric formulas by Ennius is something which is also clear in Lucretius, as we have already seen, so that it appears that rather than straightforward emulation of Homeric formulas, Lucretius may also be echoing Ennius (of course, at times it is impossible to know whether he alludes to one or the other, or both).

A striking, and famous, example of Ennius' repetition from Homeric formulas is *divomque hominumque pater, rex* (*Ann.* 591),[115] and a closely related fragment, *patrem divumque hominumque* (*Ann.* 592).[116] This seems a direct translation of Homer's πατὴρ ἀνδρῶν τε θεῶν τε (*Il*. 1.554);[117] even *–que…-que…* echoes the Homeric τε … τε.[118] There is also the (looser) example of *divom pater atque hominum rex* at 6.203.[119] Owing to the reordered vocabulary, one could think that the two fragments have been cited separately but are in fact referring to the same passage. Skutsch supposes that the fragments are separate quotations, given the repetition of

[113] See above, p. 56 and fn. 90.
[114] Elliott (2013), 76. When formulas are mentioned, Elliott adheres to the 'oral' understanding of Homer.
[115] Var. *L* 5.65.
[116] These fragments are in Skutsch under *sedis incertae annalium* ((1985), 111 ff.).
[117] Cf. *Il*. 4.68, 5.426, 8.49, 8.132, 11.182, 15.12, 15.47, 16.458, 20.56, 22.167, 24.103; *Od*. 1.28, 12.445, 18.137. There are four times as many occurrences of the formula in the *Iliad* as in the *Odyssey*. Cf. Hesiod, *Th*. 47: Ζῆνα θεῶν πατέρ' ἠδὲ καὶ ἀνδρῶν.
[118] On this cf. Elliott (2008), 250.
[119] Macrobius, 6.1.10 cites the passage in reference to Vergil's *Aen*. 10.2: *consiliumque vocat divum pater atque hominum rex*. Cf. Kelly (2008), 168-70 on making an allusion to more than one author and/ or text.

the phrase in both Homer and Vergil.[120] The vocabulary, and arrangement of nominative singulars (*pater*; *rex)* and genitive plurals (*divom*; *hominum*) suggest to me a rearrangement of language which is clearly allusive.

Skutsch does however question that 592 (*patrem divumque hominumque*) refers to a new Ennian fragment, thinking it likely that Cicero in 591 and 592 refers to the same line of the *Annales*, and preferring to assimilate this with 591.[121] Elliott cites 6.203, 591, and 592 as repetitions, arguing that this illustrates a desire for Homeric emulation in Ennius.[122] There seems to me good reason to believe that Ennius was doing as Elliott suggests, and Lucretius' fondness for repetition as well as his (accepted) Ennian and (suggested) Homeric influences lend weight to the idea that Ennian repetition need not be doubted or removed.

Elliot talks of Vergil's appropriation of Homeric formulaic language, but for Elliott, this happens through Ennius' text, not via Homer's direct.[123] It is in this way that Ennius is the 'Roman Homer', and Vergil's language could be appreciated as formulaic. I tentatively suggest that it may be equally that Vergil's use of Lucretian language, and Lucretius' own heavy use of repetition in many forms (including the use of formulaic language, be it Ennian, Homeric, or both), that gives the *Aeneid* in particular a formulaic language.[124] An example of this is fragments 6.203, 591, and 592: *patrem divumque hominumque* (with slight variations depending on the fragment, for which, see above, pp. 63-4). On close examination of the Vergilian and

[120] Skutsch, O. (1985) on *Ann.* 591 (730): 'There is no reason to think that Varro and Cicero (see the following fragment) had line 203 *divom pater atque hominum rex* in mind. Virgil has that phrase four time (1.65; 2.648; 10.2; 743), but he also has a variant *hominum sator atque deorum* (1.254; 11.725), and Ennius may similarly have varied the expression, which is bound to have occurred many times, if perhaps not as often as Homer's πατὴρ ἀνδρῶν τε θεῶν τε.' Cf. Skutsch (1985), 365 on *Ann*. 203; Elliott (2008), 242-3.
[121] Skutsch, O. (1985), 730, on 591 and on 592.
[122] Elliott (2008), 242-3.
[123] Elliott (2008), 242-8, esp. 247-8 for an illuminating discussion. I do not restrict myself to this view and find it difficult to remove Homer as a visible source for Lucretius. For the seminal study on the *Aeneid* and Homer, see Knauer (1964).
[124] For the importance of Lucretius in interpreting Vergil, see Giesecke (2000), *passim*.

Lucretian passages in question, it is possible that Vergil is alluding not (only) to Ennius, but to Lucretius (in addition). The mention of the *caelum* in the line below *hominum divumque/divomque* in both the *Aeneid* and in *DRN*, as well as the mention of the stars or constellations (*sidera* and *signa*) at *Aen.* 10.176 and Lucr. 1.2 strengthens the intertextual connection:

> insula inexhaustis Chalybum generosa metallis.
> tertius ille **hominum divumque** interpres Asilas,
> cui pecudum fibrae, **caeli** cui sidera parent (*Aen.* 10.174-6)
>
> Aeneadum genetrix, **hominum divomque** voluptas,[125]
> alma Venus, **caeli** subter labentia signa (Lucr. 1.1-2)
>
> tu mihi supremae praescripta ad candida callis
> currenti spatium praemonstra, callida musa
> Calliope, requies **hominum divomque** voluptas,
> te duce ut insigni capiam cum laude coronam. (Lucr. 6.92-5)[126]

The passage from the *Aeneid* talks about an interpreter *hominum divumque* called Asilas, who reads the entrails, as well as the stars. Lucretius, meanwhile, in Book 1 addresses Venus, the delight *hominum divomque*, in his famous hymn, but this is followed by the paradoxical assertion of the gods' disinterest in human affairs at 1.44-6, and we cannot and should not take the hymn as a straightforward one.[127] In Book 6 the repetition occurs again where Lucretius asks the clever muse Calliope to show him his way, but this comes after a similar statement of unconcerned gods at 6.68-78, and directly before a statement of the importance of understanding the *ratio caeli*, at 6.80-91. It looks like for a moment Lucretius buys into traditional ideas, which are signalled by the traditional formula, but then he corrects himself and the reader's momentary assumption. Not only the content but even the repetitions and formulas

[125] *voluptas* may be the equivalence for Epicurean ἡδονή which could help to corroborate the idea that the proem is for two audiences: the Epicurean-convert, and the neophyte who is not aware of this technical meaning of *voluptas* (Marcoviç (2008), 34-5 believes *voluptas* is the equivalent to ἡδονή). See Epicur. *Epist*. 128-131; *Sent.* 3, 8, 9, 10, 18, 19, 20; Frr. VI. 10, 12, 23, 37, 59, 60, 62, 79; Vit. 4, 6, 11, 34, 121a, 136, 137, 138. One might consider too the proem to Book 2: the repeated references to sweetness (*suave*, *dulce*) may also imply Epicurean ἡδονή, or 'sweetness'.

[126] Cf. for example, Juv. 13.31: *nomen et a nullo posuit natura metallo.* | *nos* ***hominum divomque*** *fidem clamore ciemus* | *quanto Faesidium laudat vocalis agentem.*

[127] For more on the controversial passage, see below, 2.3.2.

themselves are suggestive of traditional epic and the values they uphold and promote. But such ideas are a foil for Lucretius' rational explanation, and he uses repeated formulas at times to this purpose.

Given the nature of Lucretius' text, if a reader of the *Aeneid* saw a connection to *De Rerum Natura*, he may well hesitate as to the intention behind Vergil's allusion. It is possible that Vergil was alluding to either Ennius or Lucretius, or neither, or both. But the connections between them all seem too close to ignore, and this inevitably alters how one reads each text. Lucretius, we can say, uses allusions to his predecessors, including allusion of repetitive strategy, to his own ends.

In exploring Ennius' formulas, we find that, as far as we can tell, Lucretius is equally allusive to Ennian formulas and phrases (although this may be a natural consequence of the fact that Ennius, as we know, emulates Homer!). In any case, Lucretius does not shrink from using the traditional language of epic for his own non-traditional means, thereby attempting to situate himself firmly in the grand epic tradition. What this achieves, in my view, is to position a text which would be unfamiliar and even threatening in a familiar and non-threatening poetic tradition. Lucretius wants his thoroughly non-traditional poem to become as accepted as the most traditional literature there is: epic.[128]

[128] On making the strange familiar as didactic technique, see above p. 44, fn. 55.

1.4 Empedocles

... καὶ δὶς γάρ, ὃ δεῖ, καλόν ἐστιν ἐνισπεῖν.
Empedocles fr. 25, Plato, *Gorg*. 498 E.

It is universally accepted that Empedocles was a significant influence for Lucretius' *De Rerum Natura*, and many believe that he was the main poetic model for the poem.[129]

The same difficulties inherent in studying repetition in Ennius' *Annales*, a fragmentary text, are there in studying Empedocles.[130] It is difficult to know how far Empedocles would have used repetition on a large scale in his work (that is, in the same way that, say, Homer does, with repetitions divided by thirty lines some times, at others, by thousands of lines). Scholarship on the subject in general is scant, but the commentaries can be helpful on repetition (in particular on how often Empedocles uses different terms for his four 'roots', fire, air, earth, and water).[131] It will be seen that although Empedocles shows a particular abundance of polyptoton, he uses repetition in various ways, and apparently these variations are intended to produce equally varying outcomes. In terms of propensity to polyptoton, which we saw too in Hesiod, it is easy to see another possible source of Lucretius' fondness for the technique.

1.4.1 Polyptoton and Empedoclean Reflection of Elements[132]

Empedocles repeats 'important' items of vocabulary, or 'theme words'.[133] In the passage below, Empedocles repeats twice apiece the names of the four 'roots': earth,

[129] For which idea, see, e.g., Volk (2002), 70. For Lucretius' philosophical and poetic engagement with Empedocles, see Garani (2007). Cf. O'Rourke (2014).
[130] See above, p. 27.
[131] See, for example, Wright (1995), 22-4, esp. 23.
[132] See Chapter 5 for Lucretius' painting a picture of the world, esp. 5.3.

water, air, and fire; and those of love and strife. The precise meaning of this fragment is not certain, though Wright argues that the passage centers around attraction of like for like:[134]

> **γαίηι** μὲν γὰρ **γαῖαν** ὀπώπαμεν, **ὕδατι** δ' **ὕδωρ**,
> **αἰθέρι** δ' **αἰθέρα** δῖον, ἀτὰρ **πυρὶ πῦρ** ἀίδηλον,
> **στοργὴν** δὲ **στοργῆι**, **νεῖκος** δέ τε **νείκεϊ** λυγρῶι. (Emp. 109)[135]

The fact that in other fragments Empedocles *varies* the names by which he terms the roots makes it likely that Empedocles here repeats himself intentionally, and also that he wants to draw attention to the repetition.[136] Empedocles' repetition of the names of the roots and of love and strife, emphasises, if Wright's interpretation is correct, the attraction of each element to itself.

I mention above Empedocles' similarity to Hesiod in terms of fondness for polyptoton. Empedocles fragment 109 is markedly similar in this respect to *Op.* 1-29, which I explore in detail above, and especially verses 24-9. In Hesiod too, polyptoton effectively illustrates the similarities of the people competing with each other (and the influence of Eris), but the difference in Hesiod compared to Empedocles is that the repetition in Hesiod also highlights the subjects' opposition through juxtaposition (*Op.* 22-9, e.g. 25: ἀοιδὸς ἀοιδῷ). But both authors use language to reflect the world which they describe: the words mirror the meaning and the phenomena. This particular phenomenon is taken on by Lucretius but expanded significantly, and I explore this at length in Chapter 5.

When Empedocles discusses the combination of the four elements when Love prevails, and their separation under Strife, he repeats significant vocabulary in the same way as I describe above. An example is the polyptoton of κύκλος, and variations

---

[133] See above, p. 23, fn. 55.
[134] Wright (1995), on 109, pp. 233-4.
[135] From Arist., *de An.* 404b 8.
[136] See above, pp. 18-20.

of γίνονται (the repetition of which emphasises the changing forms, or at least formations, of the elements):

> καὶ ὀ λ ί γ ο ν δὲ π ρ ο ε λ θ ώ ν φησιν ‘ἐν ... **κύκλον’**.
> ἐν δὲ μέρει κρατέουσι περιπλομένοιο **κύκλοιο**,
> καὶ φθίνει εἰς **ἄλληλα** καὶ αὔξεται ἐν μέρει αἴσης.
> αὐτὰ γὰρ ἔστιν ταῦτα, δι’ **ἀλλήλων** δὲ θέοντα
> **γίνοντ(αι)** ἄνθρωποί τε καὶ ἄλλων ἔθνεα θηρῶν
> **ἄλλοτε** μὲν Φιλότητι συνερχόμεν’ εἰς ἕνα κόσμον,
> **ἄλλοτε** δ’ αὖ δίχ’ ἕκαστα φορούμενα Νείκεος ἔχθει,
> εἰσόκεν ἓν συμφύντα τὸ πᾶν ὑπένερθε **γένηται**.
> οὕτως ἦι μὲν ἓν ἐκ πλεόνων μεμάθηκε φύεσθαι
> ἠδὲ πάλιν διαφύντος ἑνὸς πλέον’ ἐκτελέθουσι,
> τῆι μὲν **γίγνονταί** τε καὶ οὔ σφισιν ἔμπεδος αἰών·
> ἦι δὲ τάδ’ ἀλλάσσοντα διαμπερὲς οὐδαμὰ λήγει,
> ταύτηι δ’ αἰὲν ἔασιν ἀκίνητοι κατὰ **κύκλον**. (Emp. 26)[137]

The motion and change of the description might even be seen as being reflected or even generated by the repetition of the keywords throughout the passage.[138] A strikingly similar technique is used in a passage in *De Rerum Natura*, which has a closely related subject at hand: the continual cycle of the elements. Repetition may mark a cycle: the cycle of words could illustrate in the text the very cycle which the text describes. At the end of the account of the world’s death (5.380-415), part of the *fata*, (which as a whole tell that the world is susceptible to death and that it will die), is a description of elements at war with one another: water, wind, fire, and air.[139]

> **ignis enim superare** potest ubi materiai
> **ex infinito** sunt corpora plura **coorta**;
> **inde** cadunt **vires aliqua ratione** revictae,
> aut pereunt res exustae torrentibus auris.
> **Umor item** quondam coepit **superare coortus**,
> ut fama est, hominum multos quando obruit undis;
> **inde** ubi **vis aliqua ratione** aversa recessit,
> **ex infinito** fuerat quaecumque **coorta**,
> constiterunt imbres et flumina vim minuerunt. (5.407-15)

This passage displays a circular narrative, where, on the one hand, *ignis* conquers (5.407-8), then its *vis* falls (5.409-10), and on the other hand, *umor* prevails (5.411-2), and then its strength too fails (5.413-5). The circular structure befits the sense of one

[137] Simpl. *Phys.* 33.18-27, 34.1-3.
[138] See below, 5.3, for technopaignia.
[139] Classen (1968), 99-100. Classen views anything with *lepor* as rhetorical, and so for him even parts of the poem which would be aesthetically pleasing to the reader contribute to the rhetoric of the poem. This view is adopted throughout the thesis. Cf. p. 23, fn. 55.

element triumphing over the others, and then another in turn destroying other elements, and so on. The repetitions of individual words, or on one occasion in scansion (*ignis enim* (5.407) and *umor item* (5.411), make an outer circle and then an inner circular structure visible in the verses:

The physical manifestation of the sense of the verses through repeated vocabulary—or small-scale intratextuality—is evident in both authors, and even this alone, to my mind shows the influence of Empedocles on Lucretius. Lucretius, like Empedocles, uses language to illustrate in a remarkably vivid way the workings of the world he describes. In both philosophers the changing names of the *elementa* reflect the changing forms the first particles, or 'roots' might take.

1.4.2 Anaphora or Priamel

Anaphora will not be studied as a type of Lucretian repetition in this thesis, but I take note of it here because it is a feature closely related to repetition which is noticeable in Empedocles, and because the aim of this chapter is to illustrate the various kinds of strategies of repetition, and strategies related to repetition, which are used in Lucretius' predecessors. What is more, the anaphora seen here has discernible rhetorical effect, just as I argue that Lucretian repetition invariably has some kind of rhetorical effect. In this case Empedocles makes use of anaphora in a priamel, a strategy used by Lucretius, discussed in greater depth at pp. 147-9.[140]

In the first two lines of fragment 128, οὐδὲ is repeated five times: of the fifteen words in two lines, this one repeated word makes up a third of the total number of words. The passage explains the sacrifices of early man, who did not make animal sacrifices, but in the beginning made libations of water, then honey, then oil, then

[140] For the feature as combined with anaphora, see Race (1982), 27. See too above for the '*quasi*-priamel' at pp. 48-9.

wine.[141] The repeated οὐδὲ in the priamel illustrates the gods which men did not worship, or at least, the gods which were not present. Not Ares, Kydoimos, Zeus, Cronos, nor Poseidon were there, but Kypris. As Wright tells us, she is identified with *Philia*, and here Empedocles talks about the time when early man was ruled by Love and not Strife (cf. below, pp. 72-3):

> **οὐδέ** τις ἦν κείνοισιν Ἄρης θεὸς **οὐδὲ** Κυδοιμός
> **οὐδὲ** Ζεὺς βασιλεὺς **οὐδὲ** Κρόνος **οὐδὲ** Ποσειδῶν,
> *ἀλλὰ Κύπρις* βασίλεια.
> τὴν οἵ γ' εὐσεβέεσσιν ἀγάλμασιν ἱλάσκοντο
> γραπτοῖς τε ζώιοισι μύροισί τε δαιδαλεόδμοις
> σμύρνης τ' ἀκρήτου θυσίαις λιβάνου τε θυώδους,
> ξανθῶν τε σπονδὰς μελίτων ῥίπτοντες ἐς οὖδας·
> ταύρων δ' ἀκρήτοισι φόνοις οὐ δεύετο βωμός,
> ἀλλὰ μύσος τοῦτ' ἔσκεν ἐν ἀνθρώποισι μέγιστον,
> θυμὸν ἀπορραίσαντας ἐ<ν>έδμεναι ἠέα γυῖα. (Emp. *Kath.* 128)[142]

The anaphora here is crucial to the building up of alternatives, to emphasise the qualities which were not present for early man, as well as to stress the presence and predominance of Love.[143]

The manipulation of the statement through priamel, which here involves anaphora, is evidence for a rhetorical reader/ audience-focused strategy of repetition.

1.4.3 Repetition at a Distance

There is some evidence that Empedocles uses repetition in different parts of his work which were separated by numerous verses. An example is the use of the line-ending πραπίδων ἐκτήσατο πλοῦτον, which occurs twice in the extant fragments. First is the passage where Empedocles describes a man of great wisdom (usually accepted to be Pythagoras):

[141] See Wright (1995), 282.
[142] Porph. *Abst*. 2.20.1-8, 2.27.8-10.
[143] This strategy is precisely what Race (1982), 27 explains: 'This technique serves to emphasize each separate item of foil, creating in turn a growing interest in getting to the final term.' This kind of priamel would be considered by Race to be 'adversative': '*non* A, *non* B, *sed* C'. Cf. the famous example of Sappho 16.

ἦν δέ τις ἐν κείνοισιν ἀνὴρ περιώσια εἰδώς,
ὃς δὴ μήκιστον **πραπίδων ἐκτήσατο πλοῦτον**,
παντοίων τε μάλιστα <u>σοφῶν</u> <τ'> ἐπιήρανος ἔργων·
ὁππότε γὰρ πάσησιν ὀρέξαιτο **πραπίδεσσιν**,
ῥεῖ' ὅ γε τῶν ὄντων πάντων λεύσσεσκεν ἕκαστον
καί τε δέκ' ἀνθρώπων καί τ' εἴκοσιν αἰώνεσσιν. (Emp. 129)[144]

The other occurrence of πραπίδων ἐκτήσατο πλοῦτον occurs in fragment 132, where Empedocles talks about divine knowledge (this fragment is discussed above):

ὄλβιος, ὃς θείων **πραπίδων ἐκτήσατο πλοῦτον**,
δειλὸς δ', ὧι σκοτόεσσα θεῶν πέρι δόξα μέμηλεν. (Emp. 132)[145]

One might note that the repetitions are Homeric-style formulas, which again connects repetition with the epic genre. The repetitions fit exactly in their contexts, each of which center on knowledge and true wisdom and understanding; a key didactic theme.

The πραπίδες are the centre of understanding (the Latin equivalent in every sense being *pectus*), and the duplicated expression πραπίδων πλοῦτος links the general questioning of accepted wisdom in fragment 132 with the more specific application to the subject of Empedocles' praise in fragment 128.

Another repetition, of ἦν κείνοισιν, a dative of possession roughly translated as 'there belonged to those men…', occurs in fragment 128, and this connects this passage to fragment 129. Fragment 128 discusses a sort of 'golden age', when Love dominated (see above, pp. 70-71):[146]

οὐδέ **τις ἦν κείνοισιν** Ἄρης θεὸς οὐδὲ Κυδοιμός
οὐδὲ Ζεὺς βασιλεὺς οὐδὲ Κρόνος οὐδὲ Ποσειδῶν,
ἀλλὰ Κύπρις βασίλεια.
τὴν οἵ γ' εὐσεβέεσσιν ἀγάλμασιν ἱλάσκοντο
γραπτοῖς τε ζώιοισι μύροισί τε δαιδαλεόδμοις
σμύρνης τ' ἀκρήτου θυσίαις λιβάνου τε θυώδους,
ξανθῶν τε σπονδὰς μελίτων ῥίπτοντες ἐς οὖδας·
ταύρων δ' ἀκρήτοισι φόνοις οὐ δεύετο βωμός,
ἀλλὰ μύσος τοῦτ' ἔσκεν ἐν ἀνθρώποισι μέγιστον,
θυμὸν ἀπορραίσαντας ἐ<ν>έδμεναι ἠέα γυῖα. (Emp. *Kath.* 128)

The presence of ἦν κείνοισιν in fragment 129, discussed above, which eulogises a

[144] Porph. *Vit. Pyth*. 30.
[145] Clem. Al. *Strom.* V.14.140.5.
[146] See also Wright (1995), *ad loc.* for a summary of scholarly opinion on the meaning of the phrase.

man of great wisdom (probably Pythagoras) has led commentators to believe that Empedocles talks of the same 'golden age' as he does in fragment 128. Wright takes issue with this, pointing out that Pythagoras' time, just fifty years prior to Empedocles', is incompatible with the idea that he lived in some sort of golden age (which was presumably much earlier than Empedocles' own time than just fifty years):[147]

> **ἦν** δέ **τις ἐν κείνοισιν** ἀνὴρ περιώσια εἰδώς,
> ὃς δὴ μήκιστον πραπίδων ἐκτήσατο πλοῦτον,
> παντοίων τε μάλιστα σοφῶν <τ'> ἐπιήρανος ἔργων·
> ὁππότε γὰρ πάσηισιν ὀρέξαιτο πραπίδεσσιν,
> ῥεῖ' ὅ γε τῶν ὄντων πάντων λεύσσεσκεν ἕκαστον
> καί τε δέκ' ἀνθρώπων καί τ' εἴκοσιν αἰώνεσσιν. (Emp. 129)[148]

It is certainly possible that a repetition is made to mean something different in a new context, so line 1 of fragment 129 need not refer to the golden age of fragment 128, but even just a different generation to that to which Empedocles belongs (which would still make it possible that the ἀνὴρ is Pythagoras). In Lucretius one sees repetitions which mean one thing at an earlier point in the poem, and something quite different later in the poem.[149] These repetitions in Lucretius have a primary function of showing the reader the progress she makes in her learning and lead her to continue with the poem, being incentivised by the awareness of her own growing knowledge. One might see here too connections to Lucretius in a more general sense, in his multiple 'eulogies' of Epicurus, and perhaps too in what may be argued to consist of a type of Epicurean peaceful golden age at 5.1379-1457.

[147] Wright (1995), on fr. 128.
[148] Porph. *Vit. Pyth*. 30.
[149] See discussion at 4.3.

1.4.4 Variety in Element-Naming

It has been said that Empedocles feels no need to restrict himself to the same terms when referring to the four roots, or elements.[150] This is true too of Lucretius who has many names for the first particles.[151] Air is called αἰθὴρ and αὴρ most often, though the former is much more frequent.[152] Earth is called by two terms on the whole: γαῖα,[153] and χθων.[154] Fire is more variable, though the most common names are πῦρ and ἠελίος;[155] and water is called ὕδωρ the most frequently,[156] but also ὄμβρος.[157] Given that Empedocles is not averse to repetition as a concept, it might seem surprising that for something as fundamental as the elements, Empedocles would choose to vary the terms he uses. One needs to be careful here of over-interpreting, since one could equally claim that the variation is limited and intentionally so. Still I am inclined to say that the variation is purposeful.

If we accept that Empedocles wishes to vary his terminology for the elements, the choice could be explained by the status of the elements as the basis for all things: just as they vary in form according to Empedocles' scheme of the world, they should vary in language and expression. It seems worth considering that Lucretius may have been influenced by Empedocles in his reflection of the elements in his language: despite

[150] E.g. Wright (1995), 22: 'there is no attempt to establish a technical or even consistent vocabulary for any of them'; 22-30 contain helpful discussion of the roots and their terminology.
[151] See 5.3.
[152] See Emp. 54: αἰθὴρ <δ' αὖ> μακρῆισι κατὰ χθόνα δύετο ῥίζαις (Arist. *GC* B7. 334a 5); and Emp. 76 (Plut. *Quaes. Conv.* I2. 5 P618 B).
[153] E.g. Emp. 45: κυκλοτερὲς περὶ γαῖαν ἐλίσσεται ἀλλότριον φῶς (Ach. Tat. *Is.* 16P 43. 6M); Emp. 48: νύκτα δὲ γαῖα τίθησιν ὑφισταμένη φαέεσσι | <ἠελίου> (Plut. *Plat.* 3 p.1006 F); Emp. 55: γῆς ἱδρῶτα θάλασσαν (Arist. *Mete.* B3. 356a. 24).
[154] See fn. 150.
[155] For πῦρ, see Emp. 52: πολλὰ δ' ἔνερθ(ε) οὔδεος πυρὰ καίεται. (Procl. *in Ti*. II.8.26); see fr. 27.1 for ἠελίος,
[156] E.g. Emp. 84 (Arist., *Sens*. 2P. 437b 23).
[157] E.g. Emp. 21 (Simpl. *in Ph.* 159, 13). As with all of the elements, Empedocles does use other names than those which I cite, but I quote the most frequent. For water and fire combined, see Emp. 84 (Arist., *Sens*. 2P. 437b 23). For earth, fire, and water, see Emp. 73 (Simpl. *in Caelo*, 530, 5); for all of the elements named together, see Emp. 71 (Simpl. *in Caelo* 529, 28); Emp. 109 (Arist. *de An.* A2. 404b 8).

differing beliefs about what constitutes an *elementum*, Lucretius too varies his language for the *atomoi*, calling them variously: (variations of) *semina, primordia*, and *elementa*.[158]

Although we cannot come to any certain conclusion about the degree of Empedocles' variation in this respect, given that we have only fragments of his text, I tentatively suggest that although Empedocles was not averse to variety (that is, the *avoidance* of repetition of the terms for the fundamental elements), Lucretius takes this further, and, possibly influenced by Empedocles, chooses to vary the terms for the atoms to an even greater degree. It is worth noting finally that where technical terms such as the names of the elements are repeated, this should not generally be automatically considered in any meaningful sense to be repetition, since it is rather necessary recurrence of terms.[159] But variation of terms such as this is evidently important as *avoidance* of inevitable recurrence of technical terms.

We have seen that Empedoclean repetition manifests in many ways, and that Lucretius is clearly indebted to Empedocles' language. The particularly rationalistic and scientific aspects of Empedocles' didactic poem means that his repetition is clearly used in a way which renders the arguments more approachable for the reader; Lucretius certainly emulates this strategy in order to teach and persuade his readers. As I shall show in later chapters, and especially Chapter 5, Lucretius (from what we can tell given the limited text available from Empedocles) goes further still than Empedocles in the application of repetition to different purposes.

[158] See further below, p. 260, fn. 45.
[159] See above, pp. 19-20.

1.5. Apollonius Rhodius

We have seen that Lucretius' repetition owes much to the emulation of epic. Repetition, as an important epic feature, is ripe for imitation if Lucretius wants to situate himself firmly as an epicist—even if a new kind of epicist.

As an epic predecessor of Lucretius, Apollonius Rhodius is an important final antecedent in this case-study of literary predecessors. This section will find that in his avoidance of repetition, Apollonius is exemplary of the avoidance of monotony so characteristic of Hellenistic poetry. Callimachean aesthetics placed a higher premium on variety than a recourse to epic style. Lucretius in turn, at least in respect of his repetition, avoids these qualities to *return* to epic style.[160]

One quickly sees that there are surprisingly few repetitions to be found in Apollonius' *Argonautica*. Apollonius' obvious avoidance of repetition is surprising because of his evident admiration and emulation of the Homeric style, which itself frequently and markedly makes use of the technique.[161] Apollonius' opinion of the place of repetition in his epic seems clear enough.[162]

But what to make of Apollonius' apparently purposeful selection for avoidance of this aspect of Homeric style? Elderkin concludes that by the time of the Hellenistic epic, such repetition as one sees in Homer had come to be considered

[160] On Vergil's style as more Hellenistic than Ennius and Lucretius (in terms of *discordia taetra* line-endings), see Harrison (1995), 142 (the takeaway being that in a sense, Lucretius is not particularly Hellenistic). But for Lucretius as a Hellenistic poet, see Kenney (2007b), 300-27.

[161] Apollonius' emulation of Homer dominates the scholarship on the *Argonautica*. For an instructive explanation of Apollonius' approach to Homer's style, see Richard Hunter's (1989) commentary on Book 3 of the *Argonautica*, 38-42. On the avoidance of repetition in Apollonius see Hunter (1993), 142: 'Avoidance of repetition is a familiar and fundamental principle of Apollonian style, just as repetition of various kinds is an inescapable fact of Homeric style.' Differences between Apollonius and Homer have also been pointed out, for example, in terms of narratology, in Danek (2009).

[162] On Apollonius and avoidance of epic features, see Harrison (1995), 138-49. A particularly useful point of comparison between my findings in this chapter about Apollonian lack of repetition, is at 140: on the *discordia taetra* hexameter ending, Harrison writes: 'clearly this was one feature of previous epic diction which Apollonius was extremely keen to avoid in his refined Hellenistic version of the Homeric hexameter.'

'monotonous'.[163] Hunter agrees with Elderkin, extending this theory to suggest that Apollonius reworks the Homeric style to create a new epic.[164] This seems plausible especially given that repetitions and formulas are so clearly the hallmark of epic, as we have seen: to alter this fundamental quality of epic is to attempt to alter epic itself.

As soon as one begins reading the *Argonautica*, one sees signs of distaste for repetition: where Apollonius lists the lineage of the Argonauts, the lack of verbal repetition used here is striking in its absence, particularly give that this list lends itself to extensive repetition. Apollonius must have intentionally avoided repetition to end his introduction with such a low frequency of repeated words and phrases.

It seems clear that Lucretius took little from Apollonius in this respect; the Hellenistic verbal polish which Apollonius seeks to embody in the *Argonautica* is not what Lucretius wishes to achieve for his poem. Rather, he seeks a return to the epic style, and wants to dress himself in epic clothing, even if his world-view is in conflict with that of the epicists before him.

1.5.1 Anaphora or Unfulfilled Priamel

A look at what kinds of repetition Apollonius does include in his poem is still useful. Apollonius uses anaphora on occasion; this may have been more amenable to Apollonius than lengthy, multi-verse repetitions, given that it was not associated as long repetitions were with the epic genre and with Homer in particular. Note for example where Apollonius lists four Argonauts, Iphiclus, Admetus, Erutus, and Echion, emphasising that they did not stay at their homes:

> **οὐδὲ** μὲν Ἴφικλος **Φυλάκῃ** ἔνι δηρὸν ἔλειπτο,
> μήτρως Αἰσονίδαο, κασιγνήτην γὰρ ὄπυιεν

[163] Elderkin (1913), 201.
[164] Hunter (1989), 39-41.

Αἴσων Ἀλκιμέδην **Φυλακη**ίδα· τῆς μιν ἀνώγει
πηοσύνη καὶ κῆδος ἐνικρινθῆναι ὁμίλῳ·
οὐδὲ Φεραῖς Ἄδμητος ἐυρρήνεσσιν ἀνάσσων
μίμνεν ὑπὸ σκοπιὴν ὄρεος Χαλκωδονίοιο·
οὐδ' Ἀλόπῃ μίμνον πολυλήιοι Ἑρμείαο
υἱέες εὖ δεδαῶτε δόλους, Ἔρυτος καὶ Ἐχίων· (1.45-52)

The repetition of οὐδὲ in the same line position and followed each time either by the name of the hero (Iphiclus, preceded by μὲν) or the name of the homeland (Pherae or Alope) might not be particularly notable in another author, but given the lack of repetition so far, it puts stress on the relationship of the heroes to their homelands and each other. What is more, the echoing effect of Φυλάκῃ (1.45) and Φυλακηίδα (1.47), which not only begin identically but each also bridge the third and fourth foot of the hexameter and are visibly and/ or audibly in a similar position in the line, serves to illustrate the connection between Iphiclus and Aeson through Phylacus.[165] We might also note that ordinarily the reader may expect a list of negatives to end with a positive, in a priamel, while what we have here may be described more suitably as an unfulfilled priamel (the contrast which one expects at the end of the list of negatives never arrives).[166] This is may be again an attempt at Apollonian self-differentiation.

1.5.2 Absence of Repetition

I have said that Apollonius evidently selected repetition as an aspect of Homeric style which he would consciously reject, in keeping with Hellenistic aesthetics. This is

[165] Another example of anaphora:

Ἦλυθε δ' ἀφνειὴν προλιπὼν Γυρτῶνα Κόρωνος
Καινεΐδης, ἐσθλὸς μέν, ἑοῦ δ' οὐ πατρὸς ἀμείνων.
Καινέα γὰρ ζωόν †περ ἔτι κλείουσιν ἀοιδοί†
Κενταύροισιν ὀλέσθαι, ὅτε σφέας οἷος ἀπ' ἄλλων
ἤλασ' ἀριστεύων, οἱ δ' ἔμπαλιν ὁρμηθέντες
οὔτε μιν ἀγκλῖναι προτέρω σθένον οὔτε δαΐξαι,
ἀλλ' ἄρρηκτος ἄκαμπτος ἐδύσετο νειόθι γαίης,
θεινόμενος στιβαρῇσι καταΐγδην ἐλάτῃσιν.
Ἦλυθε δ' αὖ Μόψος Τιταρήσιος, ὃν περὶ πάντων
Λητοΐδης ἐδίδαξε θεοπροπίας οἰωνῶν· (1.57-66).

[166] For another example of a kind of priamel, cf. Section 3.1.1, pp. 146-9.

most apparent, of course, when one examines a part of the *Argonautica* where one would expect repetition to occur within the poem. Considering that Homer's repetitions at the start of a new day are famous, dawn in Apollonius will be an illustrative example. Sure enough, where a new day arrives in the *Argonautica*, Apollonius refrains from repetition. Homer's copious repetition, and Apollonius' admiration of Homer in other respects, renders Apollonius' variation of language obviously anti-Homeric.

The reader is usually alerted to Homer's dawns by the following: ἦμος δ' ἠριγένεια φάνη ῥοδοδάκτυλος Ἠώς.[167] Not only does Apollonius never allude to these dawns of Homer's, but, what is more, he does not self-allude (that is, repeat an earlier dawn, or anticipate a later one, with identical or even similar language). I have found one place in which Apollonius' dawn is similar to Homer's; with the line-beginning Ἠὼς μέν ῥ' (A.R. 4.183; *Il*. 2.48).[168] But even this can plausibly be explained by coincidence of a line-initial position for Ἠὼς, and the linguistic or metrical necessity of μέν ῥ'/ ῥα.

[167] *Il*. 1.477, 24.788; *Od*. 2.1, 3.404, 491, 4.306, 431, 576, 5.228, 8.1, 9.152, 170, 307, 437, 560, 10.187, 12.8, 316, 13.18, 15.189, 17.1, 19.428. It is interesting that this phrase is far more commonly repeated in the *Odyssey* than the *Iliad*. (Close) variations of the appearance of ῥοδοδάκτυλος Ἠώς include: αὐτὰρ ἐπεί κε φανῇ καλὴ ῥοδοδάκτυλος Ἠώς (*Il*. 9.707); μυρομένοισι δὲ τοῖσι φάνη ῥοδοδάκτυλος Ἠὼς (*Il*. 23.109); ἕλκει ἀκηδέστως ἠὼς ὅτε δῖα φανήῃ (*Il*. 24.417); ὣς μὲν ὅτ' Ὠρίων' ἔλετο ῥοδοδάκτυλος Ἠώς (*Od*. 5.121); ἀλλ' ὅτε δὴ τρίτον ἦμαρ ἐϋπλόκαμος τέλεσ' Ἠώς (*Od*. 5.390, 9.76, 10.144); 5.391: ὄφρα μὲν ἠὼς ἦν καὶ ἀέξετο ἱερὸν ἦμαρ (*Od*. 9.56); καί νύ κ' ὀδυρομένοισι φάνη ῥοδοδάκτυλος Ἠώς (*Od*. 23.241); ὣς ἔφατ', αὐτίκα δὲ χρυσόθρονος ἤλυθεν Ἠώς (*Od*. 10.541, 12.142, 15.56, 20.91). There are close variations of 'throned' Dawn with: κείμην ἀσπασίως, φάε δὲ χρυσόθρονος Ἠώς (*Od*. 14.502); ἀλλ' ἦ τοι Κλεῖτον χρυσόθρονος ἥρπασεν Ἠὼς (*Od*. 15.250); αἶψα γὰρ Ἠὼς ἦλθεν ἐΰθρονος. οἱ δ' ἐπὶ χέρσου *(Od*. 15. 495).

[168] For more context, see:

> ἀνδρῶν ἠὲ θεῶν νοσφίσσεται ἀντιβολήσας.
> Ἠὼς μέν ῥ' ἐπὶ γαῖαν ἐκίδνατο, τοὶ δ' ἐς ὅμιλον
> ἶξον. θάμβησαν δὲ νέοι μέγα κῶας ἰδόντες (A.R. 4.182-4)

And:

> σὺν τῷ ἔβη κατὰ νῆας Ἀχαιῶν χαλκοχιτώνων·
> Ἠὼς μέν ῥα θεὰ προσεβήσετο μακρὸν Ὄλυμπον
> Ζηνὶ φόως ἐρέουσα καὶ ἄλλοις ἀθανάτοισιν· (*Il*. 2.47-9)

There is also an identical line beginning at *Il*. 8.1, with Ἠὼς μὲν (but no ῥα/ ῥ'): Ἠὼς μὲν κροκόπεπλος ἐκίδνατο πᾶσαν ἐπ' αἶαν.

1.5.3 A Comparison with Catullus

I interrupt this section for a brief comparison with Catullus 64. As a contemporary of Lucretius also writing in hexameters it is important to establish as far as possible whether Lucretius' return to epic style in his repetition is indeed a determined choice going against the grain of Callimachean, neoteric sensibilities. There are no epic-style whole-verse repetitions in Catullus' poem 64.[169] This is perhaps unexpected considering the poem's status in the Catullan corpus as epyllion. What one does see, however, is small repetitions, including polyptoton, epanalepsis, and anaphora.[170] Epanalepsis is a particularly dominant strategy:

> saxea ut effigies Bacchantis, **prospicit**, eheu,
> **prospicit** et magnis curarum fluctuat undis (Cat. 64.61-2)[171]
>
> illa vicem curans **toto** ex te pectore, Theseu,
> **toto** animo, **tota** pendebat perdita mente. (Cat. 64.69-70)
>
> '*sicine* me patriis avectam, **perfide**, ab aris,
> **perfide**, deserto liquisti in litore, Theseu?
> *sicine* discedens, neglecto numine Divum… (Cat. 64.132-4)

Catullus is also particularly fond of repetition at line-beginnings, so:

> **non** flavo retinens subtilem vertice mitram,
> **non** contecta levi velatum pectus amictu,
> **non** tereti strophio lactentis vincta papillas
>
> **quantos** illa tulit languenti corde timores!
> **quanto** saepe magis fulgore expalluit auri, (Cat. 99-100)

One might note too the much-discussed repetition of *immemor* at 64.58 and *immemori (pectore)* at 64.123.[172] We see *immemor* again in Ariadne's speech to Theseus at 64.135. *memori* occurs at 64.231 as part of a flashback to his father Aegeus giving

[169] But see poem 36 for whole-verse repetition at 36.1 and 36.20.
[170] Fowler (1983) writes an appendix on the feature of epanalepsis, at 628-36. On epanalepsis cf. Lausberg (1960), 312-15, esp. 315; and Wills (1996), 132-45. Wills views Catullus' use of the technique as innovative: 'His epyllion promotes the figure on a new scale'. Wills also informs us (131), surely correctly, that Lucretius does not use the figure much in comparison with contemporaries, counting seven instances.
[171] NB *prospectans* from 64.52, also describing Ariadne.
[172] And note the authorial voice's *commemorem* at 64.117.

him instructions to change his sail on his return as indication of his safety. This mention of 'heedfulness' is particularly striking after all the forgetfulness so far seen. Thesus' forgetfulness, already reproached in his treatment of Ariadne, is brought into sharper relief at this point—despite the word *memori*, we know that he will not be mindful of the instruction—and the tragedy of his father's suicide on supposing that Thesus is dead is heightened. We see one more mention of *immemori (mente)* at 64.248, when Thesus' forgetfulness is reiterated, and the connection between the pain caused to Minois by his forgetfulness and the pain that he himself must endure at the death of his father is built by the repetition of this one word.

This has been the smallest survey of Catullan repetition in his mini epic. But one can see that epic-style repetitions of the kind in Homer and Ennius simply do not occur. That said, repetitions of the type I have discussed are clearly used at moments of intense emotion, to induce pathos for the character (especially Ariadne). Moreover, one can see that repeated words can link narratives in a manner similar to the connection of arguments in Lucretius by repetitions and the connecting of narratives in Homer by phrase-repetitions. One might take from this small case-study that while Catullus indeed appears to be aiming at a new style of epic in *carmen* 64, Lucretius' return to epic is even more striking as a purposeful choice in this contemporary context.

The style of Lucretius seems quite different from (post-)Hellenistic style. One cannot be sure of the precise relative chronology of Catullus and Lucretius, so it is impossible to say who might be influenced (or not influenced, as the case rather seems) by whom. But from study of Apollonius, a simple conclusion can be drawn: Lucretius takes little from him in terms of repetition. In a broad sense, the use or even manipulation of repetition by Apollonius to show himself to be innovative is also a

feature of Lucretian poetry. Both see themselves as innovators, yet both also emulate in many ways their predecessors. Finally, Lucretius' use of the epic repetition of Homer is all the more salient given Apollonius' and Catullus' later avoidance of the marked epic feature of repetition.

1.6 Conclusion

In this chapter I set out to situate Lucretius in the didactic-epic tradition and show the main ways in which his predecessors use repetition, and how Lucretius appears to have been influenced by them. This comparative analysis should form a useful backdrop for the chapters which follow, which explore further the ways in which Lucretius repeats himself and self-alludes, and what these repetitions and allusions achieve.

I have shown the primary features of the repetition of Homer, Hesiod, Ennius, Empedocles, and Apollonius, so that as more types of Lucretian repetition are explored, we may see the ways in which Lucretius is traditional and the ways in which he is innovative. Although many of the basic strategies of repetition and internal allusion which we have seen in the earlier authors are in evidence in Lucretius, and it is possible that Lucretius owes something to all of them (with the possible exception of Apollonius), it will be seen in the following chapters that he does not merely imitate the strategies of his predecessors. Rather, Lucretius uses their strategies in combination, adapting the techniques he has learned from his forbears to his own ends, to create a highly complex network of repetitions which generate a persuasive argument for his Epicurean vision of the world.

Lucretius' striking and numerous repetitions *de facto* distance his poem from Hellenistic aesthetics and from the contemporary works of his day. Lucretius writes with an old-fashioned flavour, imbuing his text with the style of Homer and Ennius in particular, and to a lesser extent, Hesiod. Even the emulation of the Presocratic Empedocles lends more archaic style to the poem. This may have several effects. First, it is suggestive of the idea that Lucretius is the natural successor to the writers of epic (especially Homer and Ennius, to whom Lucretius owes much in style); one may gain the impression that here is the newest canonical epic. Secondly, the combination of influence so clear in Lucretius' poem from both Presocratic philosophy and epic poetry could imply that *DRN* is the culmination of the two grand traditions of natural science and epic.

In the end, one can say that Lucretius' emulation of (didactic-)epic repetition is in itself didactic. Lucretius reverts to the most traditional language and style possible, in order to render his radical, strange topic of natural science as familiar (and as poetic) as possible to his readership. It has been shown by other scholars[173] that to render the unfamiliar familiar is a didactic strategy, and it appears that this idea can be extended to the abstract concept of Lucretius' style, and specifically, to his use of repetitions.

[173] e.g. Wardy (1988), 112-28, but cf. pp. 266-7 and fn. 57.

2

Long Repetitions and the 'Unfinished' State of *DRN*

The arguments of Chapter 1—that long repetitions in particular are an epic, Homeric, feature, and that this return to epic style is part of Lucretius' didactic strategy—should help to convince that long repetitions need not be regarded with suspicion in the text of Lucretius.

I have suggested in the thesis introduction that the controversial nature of Lucretius' arguments and assertions in *DRN* have had a direct impact on the history of interpretation of the poem. The effect of Jerome's spurious biography on Lucretian scholarship is particularly relevant here. As explained in the introduction, Jerome claimed some four hundred years after Lucretius wrote *DRN* that Lucretius was insane while writing the poem, and killed himself in his forty-forth year.[1] The inference made from this account was that Lucretius died before completing the poem.[2] Ziegler's article of 1936 convincingly argued against relying on the biography as evidence for the insanity and even the suicide of Lucretius, and scholars have frequently reiterated the dubious nature of the Jerome account.[3] Yet Lucretian scholars almost unanimously retain their belief in the incomplete state of the poem. This is not in itself problematic, though it is accepted rather too commonly as undoubted fact, in my view. But the conviction that the poem is incomplete to such a degree that one can justify recourse to this belief on encountering interpretative difficulties is to my mind deeply flawed and essentially a critical cop-out.[4] The

[1] See pp. 4-8.
[2] See above, p. 7, fn. 20.
[3] See p. 5, fn. 13.
[4] On interpretative difficulties in general see Gale (1994b), 12 who makes a strong case for invoking the incompleteness of the poem only as a last resort.

frequent repetitions, especially long ones, have often been caught up in this line of thinking, and have therefore been seen many times as a problem to be solved.

There may be many sensible reasons to believe the poem incomplete, but repetitions ought never to be incorporated as part of the evidence. And yet repetitions have formed a major part of the body of evidence for belief in the unfinished state of the poem. I suggest above (pp. 4-8) that the scholarship has been contaminated by, and has itself perpetuated, the idea that Lucretius died early, and what scholars and readers have been left with is a watered-down version of the Jerome account; this must be in many ways a natural phenomenon in the history of interpretation of a controversial work. But it is important to note that even now we find critics and commentators frequently rather more dissatisfied than they might have been, had Jerome's account not survived and been incorporated into the scholarship, with aspects of the poem which are unobjectionable and which even contribute effectively towards the message and mission of the poem.

Repetitions have sometimes fallen victim to circular reasoning. Multi-linear and whole-verse repetitions have been named as part of the evidence that the poem is incomplete;[5] but multi-linear repetitions, as well as being used for evidence for the incompletion of *DRN*, have also been bracketed or removed *because* scholars subscribe to the incompletion theory. Repetitions have been bracketed or removed by the same authors who believe that *DRN* was not Lucretius' final draft: do they doubt the rightful presence of the repetitions because they think the poem was left incomplete, or do they believe the poem is incomplete (in part) because of the presence of the supposedly erroneous repetitions?

[5] See Gale (1994b), 1-5 for a survey.

As I have described, longer repetitions in particular have been thought to be a temporary measure which Lucretius left in the poem before he completed his final edition of *DRN*.[6] Deufert asserts the complete state of the poem, but he ultimately also views long repetitions as obstacles to be overcome, and accordingly frequently advocates their excision in his 1996 monograph, reasoning that later interpolators are responsible for them, and that they cannot have been intended by Lucretius.[7]

Seeing that repetitions have been and are still frequently named as evidence for the incomplete state of the poem, it is crucial for my thesis to revisit the question of how complete the poem is. The chapter assesses the internal evidence for the unfinished state of *DRN*, since that is the premise upon which many treatments of repetition, and indeed style in Lucretius more generally, have been based. It also examines some examples of multi-linear repetition in *DRN* to see how far interpretation is possible without resorting to their removal. I chose to devote a whole chapter to long repetitions, because they have as a body traditionally held an especially uncertain place in Lucretius' text (naturally, long repetitions have received more critical attention in Lucretian scholarship than other kinds of repetitions and self-allusions).[8]

The chapter will first explore the two main reasons other than repetitions that the poem has been claimed to be unfinished. First, whether the 'promise' of 5.155 must be taken to be 'unfulfilled', or whether there are other possible interpretations (2.1).[9] Then it will ask whether the arguably bathetic, even depressive and pessimistic,

[6] For this view, see Bailey (1947), 758; and much more recently, Butterfield (2014), 24-30, esp. 26-30; and for a survey see Gale (1994b) 2-5. Cf. above, p. 3, fn. 5.
[7] Deufert (1996), e.g. the assertion that 1.44-9 are interpolated, 32-9, esp. 39 for argumentative reasoning.
[8] See above, pp. 2-3.
[9] The claim is that an account of the nature of the gods is promised at 5.155 which never appears. Deufert (1996), esp. 302-4 treats the apparent problem of 5.155, and suggests transposition of the verse to after 5.125. See Pizzani (1939) for a persuasive solution to the problem. Giussani (1896-8), Boyancé (1963), and Kenney (1977) see a problem with the ending of the poem.

ending is enough to believe Lucretius died before completing his poem (2.2).[10] After this, the chapter explores the didactic significance of some multi-linear repetitions, bearing in mind the common explanation of them as the result of the lack of final revisions.

A caveat should be given at this point: it is difficult to say at what point any text of epic length might be considered 'complete', and so there are manifold theoretical problems which may be encountered in attempting to argue that such a poem is 'complete'. For 'completeness' one may as well write 'perfection', which no critic would claim to be able to detect nor even conceive as possible. My supposition is that a poem or a work is complete when the author sends it to the publishers, or whatever equivalent there is. In any case, the chapter will propose that the belief in *DRN*'s incompleteness should have no bearing on the interpretation of, or importance of, repetitions in the poem. I shall argue that the poem is more complete than scholars of Lucretius have generally proposed, and that in any case, the poem's relative completeness or incompleteness has no relevance to the importance of repetition in *DRN* as a crucial part of Lucretius' didactic and rhetorical strategy. What is more, my arguments in favour of viewing repetition in *De Rerum Natura* as a meaningful

[10] Giussani (1896-8) talks of the poem's un-Epicurean ending; Boyancé, 285-7 sees no connection between the poem's ending and its philosophical content; while Kenney (2014[2]), 22-3 supposes that '*natura species ratioque* might have made a final appearance in some shape or form to remind the reader that there was hope for suffering humanity if they knew where to seek it.' Those who cite the ending of the poem as a reason to believe that *DRN* is incomplete include: Bignone (1945-51), 318-22 who believes that the missing theological account promised at 5.155 would have been placed after the plague account in Lucretius' final version; Bailey (1947), v.1, 35-6; Townend (1979), 110; Sedley (1998), 154-65, esp. 163 supposes that the fourth part of the *tetrapharmakos*, Epicur. *Sent.* 4, is missing (the *tetrapharmakos* in full: 'God presents no fears, death no worries. And while what is good is readily attainable, what is terrible is readily endurable' (trans. Long and Sedley (1987a), 25J). Sedley suggests that 'The plague passage is the best possible evidence that Lucretius meant to add [the fourth part].' At 163 too he writes: 'In the case of the plague, as of much else in the second half of the poem, the reworking simply had not yet taken place when he himself died.' See too fn. 32 below, p. 98. Cf. Butterfield (2014), 20-2, 32-6. Kleve, K. (1979), 83-4 believes that the whole second half of the *tetrapharmakos* is missing, but that this is in accordance with the 'Epicurean curriculum' of physics first. For the opposite view, see Fowler's (1983) unpublished dissertation which accepts the ending as it stands, and also proposes (238-47) that the poem is complete as we have it; and Müller (2007), *passim* who writes, 254: 'The argument of this part of the poem in a way that creates meaning is not dependent anywhere on models. It is purely Lucretius' own invention.' Nor is Müller concerned at the lack of neat concluding remark: 'Summarizing remarks at the end, such as we find in scientific prose literature, Hellenistic didactic poetry, or even in Epicurus' letters, are no match for these artistic structures, in which Lucretius describes the bad in a way that lets the truth shine clearly through'.

strategy of persuasion removes a significant part of the evidence for incompleteness., Rather, self-allusion and repetition show unity and accumulation of argument (all of which results in a more persuasive text and which is ultimately part of didactic strategy). Accepting this point may well change readers' views on how incomplete the poem is- if at all.

2.1 The 'Unfulfilled Promise' of 5.155

Critics and commentators of *DRN* see at 5.155 an unfulfilled promise: at 5.146 Lucretius introduces the idea that the gods have no home in the world. I supply the full passage:

> Illud item non est ut possis credere, sedes
> esse deum sanctas in mundi partibus ullis.
> tenvis enim natura deum longeque remota
> sensibus ab nostris animi vix mente videtur;
> quae quoniam manuum tactum suffugit et ictum,
> tactile nil nobis quod sit contingere debet;
> tangere enim non quit quod tangi non licet ipsum.
> quare etiam sedes quoque nostris sedibus esse
> dissimiles debent, tenues de corpore eorum.
> quae tibi posterius largo sermone probabo. (5.146-55)

It has been been presumed that the *quae* of 5.155 refers to the claim which is nearest to verse 155, beginning at 5.148, that the nature of the gods is thin and far removed from our senses (*tenuis…longeque remota | sensibus ab nostris* (5.148-9)), and that Lucretius at 5.155 is telling the reader that he will discuss this, *quae*, the nature of the gods at length (*largo sermone*), later in the poem (*posterius*). Since Lucretius nowhere goes on to explain 'in a lengthy discussion', *largo sermone* (5.155), the nature of the gods, critics have cited this passage as proof of the unedited and incomplete state of the poem.[11]

[11] Sedley (1998), 154 believes that the verse refers to a missing account on the nature of the gods which Lucretius did not live to write. Gale (2009), 155 agrees. For the opposite view, see Deufert (1996), 302-4 who believes, as I do, that there is no reason to believe the poem to be incomplete, and attempts

Although the Latin might be interpreted in this way, it is by no means the more natural reading of the passage. In fact, as Pizzani argues, it is much more natural to read the statement in line 5.155, and the *quae* at 5.155, as referring to the overarching claim made in the passage, which begins not at 5.148 but with verses 146-7: that the gods do not live in any part of the world: *in mundi partibus ullis*.[12] The *enim* at 5.148 marks the verses at 148-52 a subsection of the main point stated at 5.146-7. This means that it is much more awkward to take the statement at 5.155, obviously a concluding statement to this main point, as referring to this sub-argument. The structure of the passage is clearer and more natural if *quae* refers to the statement that the gods do not live in the world at 5.146-7. Indeed, Kenney writes that taking *quae* with the whole of the passage, which interpretation I defend, is 'an unforced construction'.[13] The statement that the gods do not live in our world is covered in general terms by the fifth and sixth books, as Pizzani explains, which make no room for the gods in the scheme of the world described there.[14]

Even if one disagrees with this assessment of the more natural interpretation of the Latin, what is crucial is that the referent of the *quae* of 5.155 is at the very least ambiguous. If there is any reasonable doubt that the *quae* of 5.155 refers to the makeup of the gods, the 'missing' account of the makeup of the gods clearly cannot be used as evidence (or certainly not significant evidence) of the unfinished state of the poem. Since the *quae* of 5.155 may equally refer to (indeed I argue that this is much more likely) the statement beginning the passage at 5.146-7, the 'missing' account of the nature of the gods cannot be used as proof the poem's incompletion.

---

to rationalise the presence of 5.155, but relocates it to the verse after 5.125, reasoning that the *largus sermo* would then be on the fact that the world is not animate or divine. This argument, Deufert argues, is expanded upon throughout Books 5 and 6. I am inclined to believe there is no need to relocate 5.155. For a discussion of the problem see too Paratore and Pizzani (1960), 45.

[12] See Pizzani (1959), 174-80. Cf. Smith (1992), 390-1.

[13] Kenney (1998), 25.

[14] Pizzani (1959), 177-8.

Finally, one could even argue that, even if an account is missing, this may be, in Kenney's words, an 'isolated loose end'.[15]

2.2 The Ending of the Poem

The final lines of the poem as transmitted in the manuscripts are:

> multaque <res> subita et paupertas horrida suasit.
> namque suos consanguineos aliena rogorum
> insuper extructa ingenti clamore locabant
> subdebantque faces, multo cum sanguine saepe 1285
> rixantes potius quam corpora desererentur. (6.1280-6)

It is not difficult to understand someone having an issue with the bathetic nature of the final lines, or with the lack of instruction provided. The ending of the poem simply does not supply the ending which many readers have evidently expected. But there are obvious problems with such a critical approach.[16] The following transposition by Bockemüller, in which lines 1247-51 are placed after line 1286, gives a much more satisfactory ending in terms of structure:[17]

> namque suos consanguineos aliena rogorum
> insuper extructa ingenti clamore locabant
> subdebantque faces, multo cum sanguine saepe 1285
> rixantes, potius quam corpora desererentur,
> inque aliis alium populum sepelire suorum 1247
> certantes; lacrimis lassi luctuque redibant;
> inde bonam partem in lectum maerore dabantur;
> nec poterat quisquam reperiri, quem neque morbus
> nec mors nec luctus temptaret tempore tali. (6.1283- 1251).

[15] Kenney (1998), 24. A missing account would not be unparalleled considering Apul. *Pl.*. Harrison (2000), 196 describes the issue: Apuleius promises a third book on the topic of logic, in *Pl.* 1; the third book is not extant. Some believe that the *Peri Hermeneias*, attributed to Apuleius in a separate textual tradition, is this 'missing' third book. Harrison supposes it more likely that it was composed 'by a later follower of Apuleius' to supplement the *Pl.*. However, I was not able to consult J. Stover (2015/16), *A New Work by Apuleius: the lost third book of the* De Platone, Oxford.

[16] Gale (1994b), 1-17. Fowler's (1989) discussion, 103-4, on gnomic statements and maxims may lead one to suppose that this is where the problem with the ending of *DRN* lies. Munro (1886[4]), *ad loc.* retains the ending of the manuscripts but does note that 6.1247-51 seem 'out of place and unconnected with what precedes and follows'. Of the end of Book 6, Munro, 8, asserts that it is 'manifestly unfinished'; Bailey (1947), 36-7 describes the conclusion as 'rather abrupt…which looks as if the book was left at the last unfinished'; Ernout and Robin (1962), *ad loc.* also see a problem: 'on peut se demander si c'est à dessein que le poète oppose l'horreur macabre de ce dernier trait à l'invocation pleine de vie et de joie qui ouvre le premier livre. Mais nous sommes loin de la paix promise au sage, et l'on comprend le mot de Stace: *docti furor arduus Lucreti*'.

[17] Bockemüller (1873), *ad loc.*

To date, Martin is the only editor to accept Bockemüller's transposition, in his 1969 text, though Bright and P. Fowler also support the transposition in articles.[18] Still, even with the transposition it has been argued that the poem's ending is not satisfactory.[19] I too follow Bockemüller's transposition, since, as Fowler has well explained, it provides many convincing closural signs. Here I wish to explore ways in which one might view the ending of the poem as more satisfactory than is generally believed.[20]

2.2.1 Lucretian Book-Endings

On close examination of the conclusion of the sixth book together with the endings of the other five books, particular themes may be identified.[21] The end of the first book centers on the merits of the *ratio* contained within the poem. This can act as an inducement for the reader to continue with *DRN*. Lucretius tells the reader that he will 'see thoroughly' (*pervideas*, 1.1117) the 'innermost workings of nature' (*ultima*

[18] In her doctoral dissertation Fowler (1983), on 6.1247-51, gives reasons in favour of the transposition; she does not transpose the verses in the commentary itself but retains the verses as transmitted in the MSS; she later adopts the transposition (2007), making a convincing case that Bockemüller's transposition was as transmitted. Bright (1971) is also in favour of the transposition. Other editors keep the closing lines of the poem as transmitted, but still find the ending unsatisfactory (see fn. 30, below). See Butterfield (2014), 20-2 for a survey of the arguments and see 21-2 for rejection of Bockemüller's transposition, concluding, 22, that the ending of the poem is an indication of the incomplete state of *DRN*. *Contra* Bright (1971). For indications of closure, see esp. Fowler (2007), 202-3. Bright's (1971) list of closural vocabulary at 622-3, n.5 is also helpful. Also on the ending see the wonderful sarcasm of O'Hara (2005), 26: 'The very end of Lucretius' poem certainly looks unfinished, but among theories of how to deal with the end of the poem, some manage to deal with the challenging and difficult ending that we have, and others would impose a more palatable ending, drawing, of course, on the parallel of all those other multi-thousand-word passionate Epicurean epics we have.'

[19] Butterfield (2014), 21 maintains that the objection remains even with the transposition.

[20] Stephen Harrison mentions to me the possibility of a missing or damanged final leaf or leaves of a codex. Butterfield (2014), 21 dismisses this possibility through lack of evidence. I find it a tempting theory, but attempt here to interpret what we do have and see if the ending may be considered more satisfactory without recourse to this idea. My approach here, and indeed in general, has much in common with that of O'Hara (2005), outlined at 20-1, esp. 21: 'My inclination is always to explore the possibility of interpreting the text we have in front of us. I have no objection to emending a text….But my preference is to consider ways to interpret the text we have, and I would argue that inconsistency is a very poor argument for deletion or textual emendation.'

[21] Müller (2007), 237-40 sees connections between books: he thinks, 237-40, that there is connection between Book 1's close and the beginning of Book 2; between Books 4 and 5, however, he sees 'no link at all' (240).

naturai, 1.1116). In such a way, *res accendent lumina rebus* (1.1117). The next four books all close on a theme of death: this may render the theme of the close of the whole poem less odd, and less bathetic.[22]

Book 2 closes with the assertion that our world is neither unique nor divine (2.1048-1174), and its final lines discuss the decline of the world: Lucretius illustrates this through the statement that there was a time when Earth produced crops *sponte sua* (2.1158), yet now labour is required to yield its fruits. The final lines (2.1164-74) depict two rustics bemoaning the world's decline. We are told that they complain about the present state of affairs because they do not grasp that *omnia paulatim tabescere et ire | ad scopulum, spatio aetatis defessa vetusto* (2.1173-4). Although the *nec tenet* of 2.1173 presumably refers to the closest referent, the vintner of 2.1168-72, the general statement must refer to both rustics, and indeed can extend as a kind of gnomic statement about all those who are in ignorance about the world's inevitable decline. Two major arguments which Lucretius wishes to make emerge in this conclusion: that the world is not a divine being, and that death is inevitable, both of the world, and of man: the ploughman can stand as a paradigm for mankind itself.[23]

Book 3's conclusion carries a similar, though more explicit, message of the inevitability of death: the words, *certa quidem finis vitae mortalibus adstat, | nec devitari letum pote quin obeamus* (3.1078-9) come just 17 lines before the end of the book. Lucretius follows this statement with reasons why a desire to prolong life is illogical (death is eternal; a longer life does not alter this fact (3.1087-9)). One also

[22] Though Gale (2000), 20-1 sees each book in Lucretius as ending ('with the partial exception of Book 5') 'with images of destruction, decay and death'. Gale maintains (19-22) that the structure of the *Georgics* owes much to the Lucretian book-endings and proems. She does not see a problem with *DRN*'s ending (21).

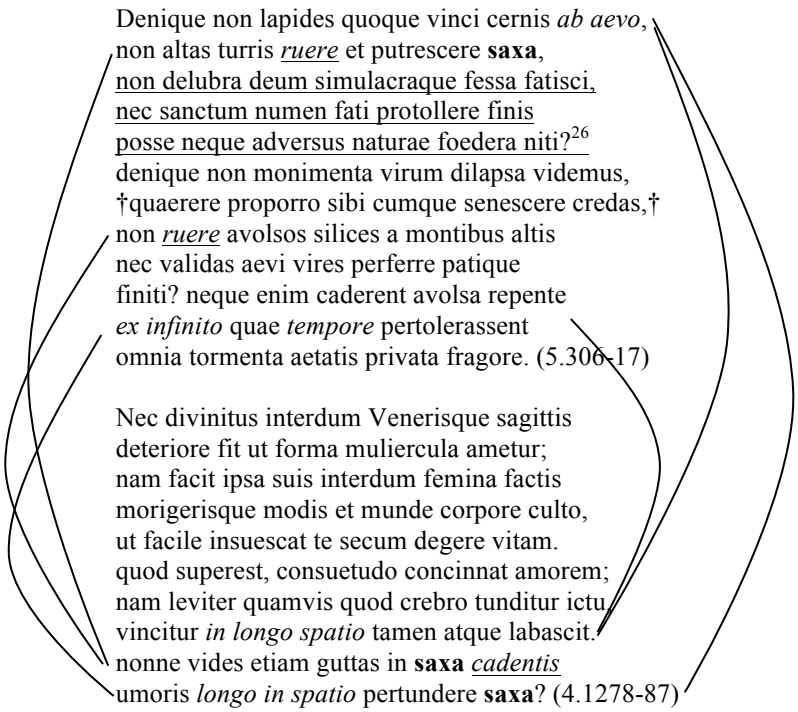
[23] For the notion of self-referentiality at the end of a book, especially in reference to death, see Harrison (310-19).

sees *finem vitai* in the penultimate line of the book, which unites the entire appeal in the final lines of Book 3.

The concluding lines of Book 4 revolve around a lack of divine interference in our world (first in matters of procreation, at 4.1233-5, and secondly in causing love, at 4.1278-87).[24] But they also indicate the inexorable nature of death: the example Lucretius uses to illustrate that love for a woman who is of *deterioris…formae* (4.1279) comes about through habit, not through divine interference of any kind, is that of water dropping onto a stone and eventually wearing it through (4.1286-7).[25] The language found here recalls the sense (and often vocabulary) of the following passage from Book 5 which forms part of the argument that the world is mortal and therefore subject to death. Here, then, one can see a relationship between an argument against divine impact and one for the inevitability of death:

[24] See Brown (1987), *ad loc.* who characterises this as 'a virtual *reductio ad absurdum* of Lucretius' fundamental denial of divine intervention in 1.149ff., where the adverb *divinitus* is prominently deployed'. Cf. Enn. *Ann.* 9 for the use of *divinitus*, which Brown tells us is the only other poetic use of the word before Lucretius. He notes too the 'verbal and thematic link between 4.1233 and 4.1278 (*nec divina…nec divinitus*). Cf. D.L. 10.118: οὐδὲ θεόπεμπτον εἶναι τὸν ἔρωτα.

[25] Minadeo (1965), 450-1 talks of the subtlety of the close of Book 4, sees here the theme of destruction emerge, and accordingly views Book 4's ending as connecting to the theme of creation at the start of the poem. For creation and destruction forming a sort of cycle or ring-compositional structure, cf. Fowler (2007), 202-5 and Sedley (1998), 160.



At 5.306-17 Lucretius uses the example of stones, rocks, and things made from stone and rock (such as towers, temples, and monuments) to argue that matter decays *ab aevo* (5.306), over time. This example forms part of a proof that if constituents of the world decay with time, eventually the entire world (after all, made up in part from rock and stone) will also break down. The allusion to the final lines of Book 4 is clear: there, Lucretius asserts that over time, rock is inevitably worn down through time and by a persistent drop of water, just as a person inevitably becomes susceptible to loving someone familiar (with *persistent* presence) over time.

The allusion is made more obvious by verbal repetitions (indicated by lines in the quoted text above) of stones or rocks (*lapides* at 5.306; *saxa* at 5.307, 4.1286 and 1287), repeated language of falling (*ruere…saxa* at 5.307; *labascit* at 4.1285; *candentis* | *umoris* at 4.1286-7), and vocabulary common to both passages which

[26] A connection is built between the end of Book 4 and the end of Book 6; with the passage at 5.306-17 (esp. 5.308-10) acting as a 'window', since it reveals and emphasises the connection to Book 6 by bringing out the allusion to death in the Book 4 passage. This might not otherwise be visible. It is a slightly different concept than what Thomas (1986 = 1999) describes, but I find his term 'window reference' helpful here.

indicates passage of (a long period of) time (*ab aevo* at 5.306; *ex infinito… tempore* at 5.316; *in longo spatio*/ *longo in spatio* at 4.1285 and 4.1287 respectively).

Given the distinct points being made in each passage, a connection has thus been created between the idea of susceptibility to decay, or a wearing down, over time, and the notion that the gods have no impact on our world: at the end of Book 4, as I state above, Lucretius' broader point is that it is not through god that love occurs, but rather for other reasons.

Another connection from Book 4's ending to a passage in Book 1 is apparent, which forms part of an argument that there is void *in rebus* (1.330: *namque est in rebus inane*). In these lines, Lucretius ends the fourth book with a rhetorical question, asking the reader if he does not see that even drops of water eventually wear through stone; the verses emphasise the inevitability of the stone being worn down, which metaphorically shows the inevitability of love borne of familiarity. In the lines from Book 1, Lucretius asserts that matter can exist *raro cum corpore*, with a rarified body, and an example Lucretius uses is that of moisture leaking through rock in caves (the suggestion being that rocks must be permeable, that is, contain some void, for this to happen). The verbal links to the end of Book 4 are emphasised:

> **in saxis** ac speluncis permanat aquarum
> liquidus *umor* et uberibus *flent* omnia *guttis*. (1.348-9)
>
> nonne vides etiam *guttas* **in saxa** cadentis
> *umoris* longo in spatio pertundere **saxa**? (4.1286-7)

1.348-9 is part of Lucretius' statement that even apparently solid bodies contain some void. This is part of the much broader assertion that void exists (1.329-417); this follows on from the argument that nothing is reduced to nothing when it decays (1.215-64). The 'nothing to nothing' argument is connected to the argument that nothing is created *from* nothing (1.156-214), and so ultimately, the statement about the existence of void, including 1.348-9, is also argumentatively linked to the notion

of nothing being created from nothing. This is Lucretius' attack on the notion of divine creation of matter, through a positive argument of how things are created: through atomic combination. Death and creation, all atomically instigated, are intricately and irrevocably connected.[27]

The theme at the end of Book 4, then, the lack of divine involvement in human affairs, is connected to Lucretius' earlier arguments in Book 1 about the nature of death, dissolution, and resolution, but also reiterates the argument against divine involvement. Once one has seen the verbal connections from the close of Book 4 to the passage in Book 5 about the inevitable decline of the world, the bridge between the themes of death and lack of divine involvement may be more obvious. Book 4's end therefore brings out not only the theme of the lack of divine interference in man's life, but also that of the nature and inevitability of death.

Book 5's conclusion emphasises in general the notion that development is a natural process (no doubt the point is meant to be a broad one, but at this point Lucretius refers specifically to cultural development). Divinities have no place in such a worldview. One might even view the arguments earlier in Book 5 (5.235-415)—which indicate that the world is part of a process leading to death—as suggesting that human development is also part of this same inevitable process. The idea of connection between man and world is made at other points in *DRN*, and so the death of the world in Book 5 followed by the death of the person at Book 6 may be a neater conclusion than has been thought.

The ending of Book 6 is particularly problematic because it is not only the ending of a book, but also of *DRN* in entirety. Readers evidently expect a more definitive,

[27] This may be an instance where one can gain 'insight by hindsight' (Mansfeld (1993)), in looking back at Book 1 having read Books 4 and 5, the reader may understand more fully the connections and implications of the apparently straightforwardly scientific principles in Book 1. Cf. Schiesaro (1994). For non-linear reading see too Sharrock (2000), 33-6 and Genette (1972) trans. Lewin (1980), 34.

climactic ending, perhaps including concluding statements.[28] But the idea of re-reading *DRN* is not given enough prominence. If one subscribes to Schiesaro's theory that the reader of *DRN* is encouraged to go back to the beginning of the poem after its close—that it is 're-born' or experiences a *palingenesis*—then the ending should lead into a new start.[29] But it is still, of course, unavoidably the ending of the poem. If one considers the other book endings, the finale of the poem at the end of Book 6, far from indicating the unedited, incomplete state of the poem, might be read as drawing together the important themes of *DRN* to send a final message. Certainly a general theme one can draw from the conclusion of Book 6 is one of death and decay, and also the absence of the gods (or, at any rate, futility in religious belief versus the value of rational thought). It is not surprising that scholars have spoken of the pessimistic tone here, and found the poem's close unsatisfactory as a result, undoubtedly (at least in part) because of its unsettling message.[30] But the point is of course not whether the poem closes on a positive, uplifting note or a pessimistic one. The point is that once she has read *DRN*, the reader possesses an understanding of the world which, if she has learned the lessons thoroughly, should not allow irrational fears and thoughts to pollute her view of the world. The capability for rational thought is not enough: the reader must use it in her life, and this includes reading an account of hopeless and widespread death, and finding herself unaffected by irrational thoughts and fears.[31]

[28] Cf. above, pp. 90-2. See Fowler (1989), 78 for the five different senses of closure, which include 'the degree to which an ending is satisfactorily final'; for dissatisfaction with open endings versus closed endings, see 79-80; and Fowler's modified conception (2000), 285-90.
[29] Schiesaro (1994).
[30] Bright (1971), 607 and *passim* talks of the lack of hope in the poem's ending; Fowler (2007), 199 too summarises similar scholarly views: 'In a work essentially optimistic in its promise of an improvement in the condition of mankind, the present ending is seen as dominated by a tone of gloomy pessimism and thereby self-evidently misplaced.'
[31] Bright (1971), 607-32 argues that Lucretius omits aspects of Thucydides' depiction of the plague in order that his account should be purposefully more hopeless. He also writes of the moralising aspects of Lucretius' account (esp. 617-20); as did Smith (1966), 81-2 before him. Sedley (1998), 164 hints at this, mentioning the psychological harm of the plague; Like Bright, Commager, Jr. (2007) compares Lucretius' account with Thucydides, and discusses (esp. 183-4) the fact that Lucretius' plague narrative shows much more of the psychological or 'moral' aspects of the suffering than Thucydides' does. At 197-8 he writes: 'Where Thucydides recorded the plague as an aid to future generations (2.48.3),

Once she has read the *DRN*, and Book 3 in particular, the reader might find herself wondering at the actions of the frenzied mourners who kill each other in order to give proper funeral rites to their loved ones (6.1282-7, 6.1247-8). This might be considered in some sense a didactic use of implicit or invisible allusion: in considering precisely what understanding or capability for rational thought those in the narrative lack, the reader would inevitably and implicitly recall, or repeat in her mind which rational concepts she, conversely, *does* possess.

Sedley has concerns at the 'large question to which [Lucretius] has nowhere hinted at the answer': where in *DRN* has the reader learned to endure terrible pain?[32] But I think that this misses the point. What is particularly striking about Lucretius' plague is that the worst aspect of the contagion is not the pain or the disease itself, but the illogical and in the end, completely immoral, behaviour or actions to which the disease drives the victims.[33] For this we need only look at 6.1230-4. After expansive description of the ills of the plague—almost a hundred verses, from 6.1145-1229—Lucretius says that the *most pitiable thing of all* was the victim's state of mind and *fear of death*:

> illud in his rebus miserandum magnopere unum
> aerumnabile erat, quod ubi se quisque videbat
> implicitum morbo, morti damnatus ut esset,
> deficiens animo maesto cum corde iacebat,
> funera respectans animam amittebat ibidem. (6.1230-4)

Lucretius borrows it as an emblem of a present mental sickness. To recognize it man is to look not ahead, but within.' For the heightening of Thucydides' account by Lucretius, cf. Kenney (2007a), 108-9. *Contra* Munro (1886[4]), 8: 'The description of the plague of Athens…is manifestly unfinished; and though it contains much noble poetry, it suffers from the unavoidale comparison with the austere beauty and simple grandeur of its original, which the poet has not always understood and from which he has sometimes departed without good cause.'

[32] Sedley (1998), 162; for a general discussion of the plague and its problems, see 161-5. Cf. fn. 10, p. 87. I would reply that Lucretius is not concerned in his poem with ethical applications of physical principles in a formal sense, rather he deals with only the first two of the first four *KD* in *DRN*. Thus he equips his readers to deal with ethical problems. Cf. Kleve (1979).

[33] See too Lehoux (2013), 146 on the idea that the revulsion felt by the reader should not be at the plague itself and its horrors, but rather at the vividness of the terror which the Athenians are experiencing.

This sickness, Lucretius tells us explicitly, is worse than the most vile plague he can describe for us.[34] It is this sickness he wants to cure: he has no business with physical pain: as he has shown us with the plague description, mental ills do greater harm than physical.[35] Although I shall tentatively suggest, *contra* Sedley, that Lucretius *intentionally* and for rhetorical reasons blends the exposition on fear of *death* (that is, fear of *being dead*) in Book 3, with the exposition on the fear of *dying* in the plague-account in Book 6, to believe that the ending is as Lucretius wrote it, and even as he wished to leave it, does not require this interpretation. Still this suggestion counters the idea that there is something 'missing' from the plague-description, which is an important potential objection to the close of the poem as it stands.

The table below sets out broadly the conclusions of each book, which will be useful for a final discussion of 'closing' themes:

[34] For the idea that fear of death is worse than death itself cf. 3.1076-94.
[35] The distinction between between allaying the fear of death (i.e. mental pain), and the fear of dying (i.e. physical pain), is explored in greater detail below, pp. 107-9.

Book of *DRN*	Theme of ending	*Ratio* (major theme)	Divinity (minor theme)	Death (minor theme)
1	The merits of *ratio*	X		
2	The world is not divine; death (of the human and the world) is inevitable		X	X
3	Death (of the human) is inevitable			X
4	Divine interference is no explanation; death (in general) is inevitable		X	X
5	Divine interference is no explanation; death (of the world) is not to be feared		X	X
6	Possessing *ratio* is not enough: you must use it in life	X	X	X

It is easy to see that the closing themes seen above recur throughout the *DRN*. When considering them as part of the poem's wider argument, they may be classified, as in the table above, as 'major' and 'minor' themes. The major themes appear relatively early on in the poem: the first is the importance of rationality in dealing with questions about our world and our life as part of it. The second is often an implicit theme (and so it is not explicitly named in the table as a major theme). This is the problem of a lack or misapplication of rationality: *religio* is an opponent to the rational thought so necessary to our happiness. This theme does not occur directly at book endings but is rather a subtle implication behind all of the themes: *religio* is both the manifestation of lack or misapplication of *ratio* and an encouragement of it. It endorses fear of death and subscription to the belief in active gods, and therefore causes fear of divine power. *religio* is present at the close of Book 6 in that religion motivates the fighting over corpses, and also that people stopped worshipping because

they were so frightened of death. It may also be significant that *religio* is present directly at the start of the poem, in the vivid description of Iphigenia's sacrifice (1.80-101) and in the famous line 1.101: *tantum religio potuit suadere malorum*. Given that *ratio* is also an important theme of the proem and the finale, one can say that the major themes, then, open and close the poem.

The minor themes are the inevitability of death and the absence of divine interaction with our world.[36] I find these classifications of major and minor themes useful since it seems clear to me that the main lesson Lucretius wishes his reader to learn is that *ratio* should be heeded above irrationality in considering everything. The eradication of the reader's fear of gods and of death is an important aim for Lucretius, but it is clearly a means to an end: the attainment of Epicurean *ataraxia*. If the reader is to help herself, she must not only possess the faculties to rationalise particular situations and phenomena for herself, but she must also recognise the value of this rationality, for which the major lessons are crucial.

The poem encloses itself with the major themes at the ends of Books 1 and 6, and that the intervening Books 2, 3, and 4 all end with a meditation on one of the minor themes. This can be viewed as representative of the fact that the substance of the poem is framed by an argument for its value: if Book 1 argues (among other things) that rationality is crucial to happiness, then it is hardly inappropriate for Book 6 to end with an example of the misery and even chaos which ensues when one forgets to apply rationality to a particular situation. When the reader views the close of Book 6 either as a warning, or as a sort of test (or as both), it can be seen more easily as a

[36] Minadeo (1965), 447-8 points out the beginning and ending of the poem (the hymn to Venus, and the death and destruction at Athens) are in keeping with a dominant theme of *DRN*: of creation and destruction. But Minadeo sees failure to 'participate' in the close of Book 5, which I do not.

suitable finale for the poem.[37] One could also reason that there is a categorical difference between the didactic aims of the major themes, and the minor themes. The major themes aim to empower the reader through understanding of the merits of correctly applied rationality; while the minor themes involve knowledge which is more discursive. It is highly appropriate, then, for the poem to end on a note of empowering or equipping the reader to tackle problems which may occur in one's life, and which may involve a lack of understanding. Possessing the understanding of the *merits* of discursive knowledge is arguably a primary requirement before possessing knowledge itself: one must first of all feel motivated to learn and heed these lessons.

Already, on consideration of the theme of the endings of the books of the poem, we may dismiss the assertions that the end of the poem is unsatisfactory and that it is therefore proof that *DRN* was left incomplete. But allusions from various other parts of *DRN* to the end of the poem can further boost the argument that the ending is in fact satisfactory, and is no cause to believe that the poem was left unfinished.

2.2.2 Connections between the Close of *DRN* and Other Parts of the Poem

Verbal and argumentative connections between the close of the poem and other parts of the *DRN* will strengthen an argument that the finale need not be viewed as an imperfect, even unplanned and haphazard, part of the poem.[38] It should at the least convince my reader that a similar artistry and design is present in the conclusion to the poem as in the rest of the work.

[37] The notion of the ending of *DRN* as a test is seen first in Clay (1976), 222-3; and Müller (1978), 217-21. See too Fowler (2007), 199-233; and *contra* Sedley (1998).
[38] On the end of Book 6 picking up themes, Bright (1971), 622-3 sees vocabulary at the end of the poem as summarising recurring themes from the poem, citing *mors*, *luctus*, and *morbus*.

I have proposed (2.2.1) that Lucretius uses the conclusion to Book 6 to suggest that the *vera ratio* learned throughout the poem must not be forgotten, and to illustrate just how important *ratio* is. The final lesson of the poem is the importance of remembering and applying to one's life what one has already learned.[39] Connections from Book 6 to other parts of the poem illustrate this final lesson in two ways. First, reminders of the pernicious nature and futility of religious adherence show emphatically how destructive *religio* can be to one's happiness. *Ratio* is therefore crucial, since we know that misapplied *ratio* or a lack of *ratio* altogether led to *religio* in the first place.[40] Secondly, connections within the text are made which restate unequivocally and more generally the importance of remembering *ratio* and using it accurately in one's life. As part of this reminder of the necessity of *ratio*, Lucretius builds in particular a relationship between the end of the poem and the account of the life of early man in Book 5, found at 5.925-1010.

2.2.2.1 Fighting *religio*

I begin with Lucretius' argument for the importance of *ratio* through a rejection of religion and irrationality. A suggestion of the despotic nature of religion is apparent when one notes common language used to describe *religio*. In *DRN religio* is depicted as being in a position above man. This shows that, for Lucretius, *religio* originates in the skies, but also suggests its oppressive force.

The idea that *religio* comes from the sky is first mentioned at 1.62-79, where *religio* showed her head *a caeli regionibus* (1.64) and stands over (*super*) mortals (1.65). The image is maintained where Epicurus is described as 'raising' (*tollere*) his

[39] For this idea, cf. Sedley (1998), 165: 'This triumph of philosophical serenity amid the most intense physical pain was surely what Lucretius was preparing to bring into focus at the close of his poem.'
[40] See esp. 5.1161-1240, and discussion of 1204-10 below. Cf. 5.82-90.

eyes *contra religio* (1.66): one only 'raises' one's eyes if the object of the gaze is above him. The language of resistance (*est…ausus*; *obsistere contra*) at 1.67 necessarily characterises *religio* as aggressive. The suggestion is explicitly confirmed when one reads the description at 5.1204-10 of the fears which creep into man's heart when looking up at the sky:

> nam cum suspicimus magni caelestia mundi
> templa super stellisque micantibus aethera fixum,
> et venit in mentem solis lunaeque viarum,
> tunc aliis opressa malis in pectora cura
> illa quoque expergefactum caput erigere infit,
> ne quae forte deum nobis immensa potestas
> sit, vario motu quae candida sidera verset (5.1204-10)

The two notions, of *religio* as an oppressive force and of its beginnings in the heavens, are combined and confirmed in this passage. Here, Lucretius states plainly that looking up at the sky brings one's ignorance into sharp relief, and this is why *cura*, characterised here as a creature 'begins to raise its awoken head' (5.1207-8).[41] This *cura* springs from man's ignorance as to whether the gods cause the movements of the skies (5.1209-10).[42]

This is not the first time that *religio* is shown as oppressive and dwelling in the skies, though it is here that the notions of ignorance about the heavens and of oppressive *religio* are explicitly connected. At 1.62-79 we see the monster *superstitio* in the skies. Friedländer has shown the early connection here of skies and religio, in the verses: *gravi sub* ***religio****ne* | *quae caput a cae****li regio****nibus ostendebat* (1.64). The ingenious wordplay, 'haunts the ear once one becomes aware of it'. He also suggests that Lucretius implies *superstitio* with *super…instans*, helped by Servius' etymology which quotes Lucretius.[43] *super…instans* certainly suggests a similar domination from great heights. The passage at 1.62-101 is an especially memorable tirade against

[41] There are possible connections to the monster *religio* in the skies from 1.62-79.
[42] West (1969), 127-8 examines 5.1186-93, which also indicates the connection between the skies and our fear.
[43] Friedländer (1941), 19 and Serv. *A.* 8.187.

religio. Religion is characterised emphatically as the enemy: *quare religio pedibus subiecta vicissim | opteritur, nos exaequat victoria caelo* (1.78-9). The repeated concept of a figure high up and aggressively dominating mankind would be memorable, and after 5.1204-10 this idea is combined with the notion that ignorance is a root cause for religious adherence.

Once this connection between *religio*, ignorance, and the skies, has been confirmed by Lucretius, the language in the finale of Book 6, especially at 6.1276-7 would be more significant to the reader, and may carry with it, and emphasise, the associations which have been made with *religio* by this point in *DRN*: *nec iam religio divom nec numina magni | pendebantur enim: praesens dolor exsuperabat*. Even if neither *religio divom* nor *numina* were 'valued' (*pendebantur*) at that time, there is still a suggestion of the oppressive, even tyrannical, nature of religious observance: first, simply through the associations which have been made for the reader between religion and oppression in *DRN* up to this point; and secondly, by the use of the verb *pendere*. pendere (to value, esteem, judge) is etymologically connected to *pendēre* (to suspend, or hang): To weigh and so to place value on something, one needs to suspend it or hang it.[44] In this case, though the scansion (the first three vowels of *pendebantur* are long) means that it is ambiguous as to which verb is used, 'value' makes more sense than the passive 'were suspended'. Still, given the close connection between the verbs, *pendebantur* is necessarily allusive to earlier depictions in the poem of *religio* as 'standing over' and oppressing mankind (1.62-5) through the evocation of hanging or suspending: if something hangs it must be above the thing (or people) over which it hangs. The single word *pendebantur* is enough in my view to recall for a moment the association already built between ignorance, religious

[44] For the meanings in brackets see *OLD* s.v. *pendēre*; and *pendere*, 6 and 7. For the connection between the two, see especially and *pendēre* s.v. 3: 'hang[ing] or be[ing] weighed (in a balance)'. This connects the notions of hanging or suspension with weighing or valuation.

oppression, and ultimately misery. In general, by rejecting religion as a way to happiness and security, Lucretius indirectly promotes rationality as a preferable path to *ataraxia*.

As well as suggesting up until the close of the poem that religion is detrimental to man's well-being, Lucretius also makes a case that suffering and death are unavoidable even if one adheres to religious code. Verbal connections between the statement of the world's inevitable death in Book 5 and the finale in Book 6 might well indicate the argumentative connection to the reader:

> Denique non lapides quoque vinci cernis ab aevo,
> non altas turris ruere et putrescere saxa,
> non **delubra deum** simulacraque fessa fatisci,
> nec **sanctum numen** fati protollere finis
> posse neque adversus naturae foedera niti? (5.306-10)
>
> omnia denique **sancta deum delubra** replerat
> corporibus mors exanimis, onerataque passim
> cuncta cadaveribus caelestum templa manebant,
> hospitibus loca quae complerant aedituentes.
> nec iam religio divom nec **numina** magni
> pendebantur enim: praesens dolor exsuperabat. (6.1272-7)

In the Book 5 passage Lucretius makes an argument that the 'elements' will be destroyed, and since all the constituents of the world (except the everlasting 'first beginnings', as we are told at 1.483-6 and 1.951-2) will eventually decay, one must say that the world itself will also break down, and that it is therefore subject to death. The finale of Book 6 contains a similar argument, in that Lucretius insists there again on the inescapable nature of death. The passages are connected by striking links (*delubra deum; numen; sanctus*).[45] The reader will know that religion can help in neither case: whether it is the world which is dying, or the citizens of Athens.[46]

[45] There are also links to the idea of decay and corpses: *putrescere* (5.307) and the piled-up corpses of 6.1273-4; and *denique* is seen in the first line of each passage (5.306, 6.1272).
[46] See connections to 4.1278-87, which also emphasises the inevitability of death.

2.2.2.2 Learning to Use *ratio*

A more general point may be made about the presentation of the Athenians' fear of death, which should add to the case I am building that the poem's ending encourages the reader to use *ratio* in her life, by showing the misery of the alternative—not using *ratio*—which would result in subjection to the irrational fear of death. Lucretius paints a graphic picture of the fear of death present among the Athenians. He would have expected his reader to recall the third book of *DRN* on encountering the description of the deaths brought on by the plague. He also encourages this recollection by intratextual connections, as I shall illustrate momentarily. But as other readers have shown, Lucretius has not, in fact, given a comprehensive argument against the fear of death *in general* in the third book, since he does not actually deal with the fear of dying.[47]

In Book 3, Lucretius shifts the focus of the discussion to suit his argumentative needs.[48] I fully subscribe to the idea that Lucretius is aware of the incomplete coverage of the argument, and that it is for rhetorical reasons that he glosses over certain types of fear, and even gives them unsatisfactory airtime: this is the case in Books 3 *and* 6.[49]

With that important point established, I suggest that Lucretius attempts to do something comparable with the description of the plague at the end of the poem: he is

[47] Reinhardt (2002), 291-4. He shows that the fear of death which Epicureans would wish to deal with could be divided into the following three categories (see esp. 291): first, fear of death as fear of what will happen to one's body after death, second, as the curtailment of katastemic pleasure, and third, as the frustration of plans or projects; Reinhardt points out, 294, that the second two types of fear, being closely connected, are difficult for Lucretius to dispel, given their requirement of the in-depth knowledge of the Epicurean theory of katastemic pleasure which the entry-level reader of *DRN* simply would not have. Cf. Reinhardt, 298; and for the speech of nature as dealing with the fear of curtailment of pleasures (which is closely connected with the fear of frustration of plans), see 295-8 and esp. 298. For the 'missing' fourth part of the *tetrapharmakos* see above, p. 87, fn.10 and p. 98, fn. 32.

[48] Reinhardt (2002), 291-4 explains that in the first part of the book up to verse 930, Lucretius in fact often deals only with the fear of *being dead*, as opposed to the fear of curtailment of pleasures or frustration of plans. Cf. fn. 47 above.

[49] For rhetorical Lucretius see too Classen (1968); Stork (1970); Wallach (1976); and below, Chapter 3.

aware that he has not dealt with the fear of dying, and tries to show the reader the irrationality of the fear of dying, and of death in general. It is worth remembering that Lucretius may well have been unconcerned at the limited expansion on the fear of dying, given that physical pain is arguably not in the didactic poet's remit.[50] Keeping that suggestion in mind, I suggest that Lucretius realises that there is room for further exposition on the fear of death, and in particular, on dying.[51] By building connections between the third book and the plague-account, and by assimilating the fears of death and of dying in general throughout the plague account—as Reinhardt shows that Lucretius does in Book 3 with two different types of fear—Lucretius not only reiterates the pointlessness of the fear of death (notwithstanding whatever limitations may be found in Book 3's argumentation), but also in a manner cheats his way to illustrating the futility of fearing the process of dying, even when it is a truly horrible one.[52]

Lucretius aims to run together arguments against the rationality of fear of death with arguments against the rationality of fear of *dying* in Book 6. This is especially neat if we accept that the speech of *Natura* at 3.931-63 is addressed to a person whose death is imminent: the very situation of course in which the victims of the plague find themselves.[53] By bridging arguments made in Book 3 and at the end of Book 6, Lucretius thus wants to make it as easy as possible for the reader to feel that all eventualities of the fear of death have been dealt with. Although they have plainly not

[50] On detailed examination of the arguments at 3.417-829 for the mortality of the soul, readers may notice the extraordinary concentration of the duplication of arguments which, though arguably rhetorically forceful, are nonetheless expounded in the passage as if wholly new contributions to the rationale behind the mortal soul. See, e.g. 3.445-8; 3.548-57; 3.615-23; 3.784-99.
[51] Thanks to Tobias Reinhardt for helpful discussions on this point especially.
[52] Reinhardt (2002), 294 on 3.894-903. For connections within Book 3 which serve rhetorical purposes, see, e.g. Stork (1970), 132-3, 145-9; Wallach (1976), 102.
[53] For *Natura* as addressing the dying man, see Reinhardt (2002), 298-304.

been, as others before me have shown, Lucretius has used rhetorical strategy to create this illusion.[54]

The Athenians, who live in the very place where Epicurus later introduced his philosophy, were unable to be rid of the fear of death which Lucretius has already classified as irrational. Rhetorically, there are weaknesses here: being free from fear of death is arguably easier when you are far from it (or at least have every reason to believe yourself to be so), and we have already mentioned the important differences between fear of death and fear of dying. But Lucretius wants the reader to be able to actively compare her hypothetical behaviour in the plague-situation, with that of the victims described in Book 6. The reader is meant to take the lessons from Book 3, and apply them to the situation in Book 6, arguably thereby conquering in one fell swoop the fear of dying, while at the same time consolidating the lessons on fear of death. The reader is induced to do this by intratextual connections.

In the plague-narrative, Lucretius describes the desperate measures some men took, fearing so gravely the *limina leti* (6.1208); these measures include removal of various parts of the body (hands, feet, eyes, and genitals), and Lucretius indicates that these men would rather stay living without these body parts, and even without the faculties of the mind, especially in 6.1213-4:

> et graviter partim metuentes limina leti
> vivebant ferro privati parte virili,
> et manibus sine nonnulli pedibusque manebant
> in vita tamen, et perdebant lumina partim:
> usque adeo mortis metus his incesserat acer.
> **atque etiam quosdam cepere oblivia rerum**
> **cunctarum, neque se possent cognoscere ut ipsi.** (6.1208-14)

As I discuss in brief above, Lucretius makes it clear that the worst thing about the plague is not the sickness, nor the death, but rather the fear of death that the victims

[54] As well as Reinhardt (2002), see too Wallach (1976) and Stork (1970).

experience.[55] This is explicitly stated in the following lines, which I quoted above (p. 98) which appear soon after the description of men removing various body parts:

> Illud in his rebus miserandum magnopere unum
> aerumnabile erat, quod ubi se quisque videbat
> implicitum morbo, morti damnatus ut esset,
> deficiens animo maesto cum corde iacebat,
> funera respectans animam amittebat ibidem. (6.1230-4)

Here, the consistency of the message of the finale of Book 6 with the ending of Book 3 should be clear. In the plague narrative, Lucretius makes an argument, already suggested in Book 3 (3.1053-94) that the misery of the man who fears death is far worse than death itself. But the fact that the assertion of Book 3 is recalled here also shows the man on the point of death actually experiencing this fear, and puts the abstract example from Book 3 in front of our eyes, as it were: the most painful misery of the dying victim of the plague is not the plague itself, and it is not the pain of the voluntary removal of body parts, but rather the fear.[56] Lucretius seems to urge his reader to remember the lessons she has learned previously, so that she should not be seized by such fear and misery (obvious obstacles to *ataraxia*), especially when such moments in the future are unknown in any case, as he has told us at 3.1085-6.

I turn at this point to Lucretius' more direct endorsement of Epicurean *ratio* at the end of the poem. One allusion to Book 3 appears in Book 6, in which Lucretius highlights the importance of the *ratio* seen earlier in the poem.[57] In the final lines of the third book, Lucretius cautions against *vitai…cupido* (3.1077), lust for life. He claims that this will make the nothingness of death no less eternal, that there is no

[55] Müller (2007), 253 rightly suggests that Lucretius' plague narrative performs a very different function to Thucydides': 'Lucretius, unlike Thucydides, wants to criticize the people's absurd stubbornness, where philosophical happiness, allowing the plague to do its work, would have been appropriate.' Cf. Commager, Jr. (2007), *passim*.
[56] This is plainly didactic: Lucretius makes the fear itself visible. This is comparable to strategies related to analogy which are described in Chapter 5.
[57] Connections are made at the end of each half of the poem; in which one might find further defence for Conte's (2007) 'proem in the middle' idea.

profit to be had in seeking to prolong one's life, and declares the inevitability of death. There are clear connections in particular to the passage at 6.1235-46:

> quippe etenim nullo cessabant tempore apisci 1235
> ex aliis alios avidi contagia morbi,
> lanigeras tamquam pecudes et bucera saecla; 1245
> idque vel in primis cumulabat funere funus. 1237
> nam quicumque suos fugitabant visere ad aegros,
> **vitai** *nimium* **cupidos** mortisque timentis
> poenibat paulo post turpi morte malaque, 1240
> desertos, opis expertis, incuria mactans.
> qui fuerant autem praesto, contagibus ibant
> atque labore, pudor quem tum cogebat obire
> blandaque lassorum vox mixta voce querellae. 1244
> optimus hoc leti genus ergo quisque subibat. (6.1235-46)
>
> Denique tanto opere in dubiis trepidare periclis
> quae mala nos subigit **vitai** *tanta* **cupido**?
> certa quidem finis vitae mortalibus adstat,
> nec devitari letum pote quin obeamus. (3.1076-9)[58]

At 6.1235-46, Lucretius talks of those who failed to visit their loved ones because of their fear of death through contagion. We are told that these people died in any case, and in fact, their death was much more dreadful, since they died *deserti* and *opis expertes* (6.1241). In this way, Lucretius shows the reader that in this situation only *ratio* could have helped matters (in this case, *ratio* is to recognise that seeking to prolong one's life because of a *vitai…cupido* is erroneous). It is intimated that to fail to use the rationality learned will similarly make everything worse for the reader. The arguments which close the third book would be in the reader's mind as she studied the end of the poem. Lucretius clearly cannot do anything about the reader's fear of dying in respect of her possible future pain in dying, but he can vividly show the reader how applying what she has learned in Book 3 could help her at the point of death. The verbal connection of *vitai tanta cupido* at 3.1077 to *vitai nimium cupidos* at 6.1240 acts as a signpost to the argumentative connection.[59]

[58] See the full book ending at 3.1076-94.
[59] But NB *cupido* at 3.1077 is a noun and *cupidos* at 6.1240 is an adjective.

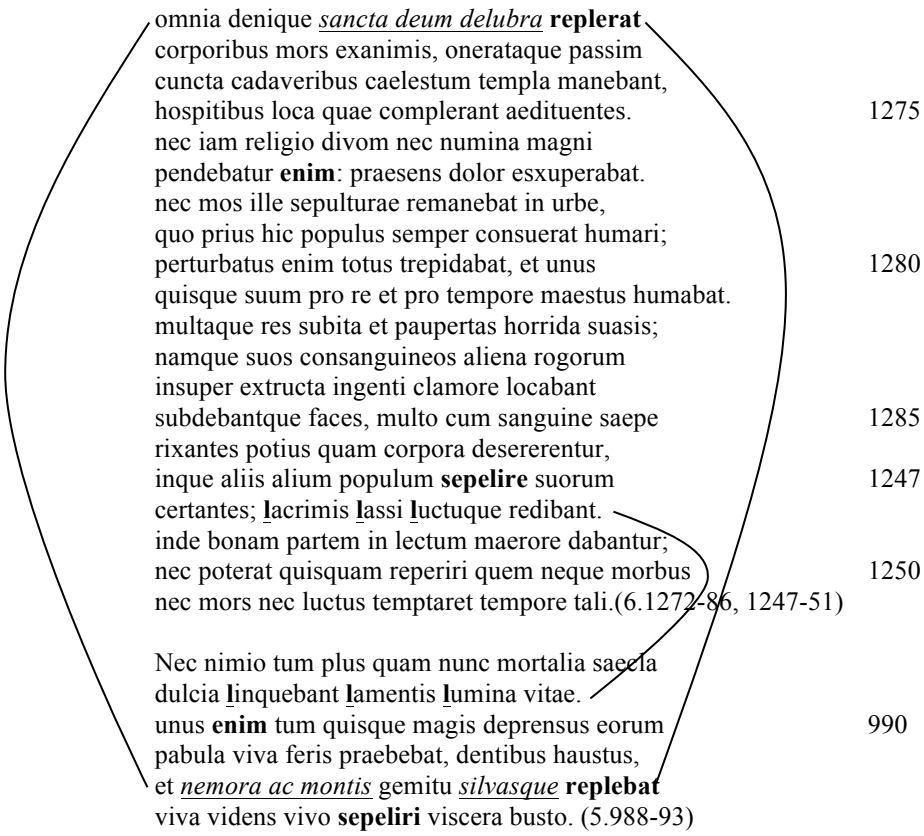
As well as making a more direct statement of the importance of using rationality in one's life, and connecting the plague to lessons from Book 3 in order to combine and consolidate the arguments against fear of death, Lucretius creates particular connections between the plague account and the narrative of early man's development. In doing so, Lucretius contributes to the same argument: that rational thought is crucial for a civilised, or at least happy, life. Connections between these parts of the poem are especially persuasive given the start of Book 6's praise of Athenian civilisation combined with the idea that the pinnacle of civilisation is reached at the end of Book 5. The implication is that civilisation is pointless without Epicureanism, or *vera ratio*.

At the very end of the *DRN*, Lucretius writes that death filled the *sancta deum delubra*. The verb *repleo* is used, which, at 15 instances, has a moderate level of recurrence in the poem. What is striking is its use in conjunction with language of mourning, (gruesome) death, burial, and religious belief.[60] Given these coincidences, one might recall the account in Book 5 of early man's death at the jaws of a beast. The verbal connections may be seen below:

[60] In extant Latin, *repleo* is usually used in a technical sense, and not in these kinds of emotive contexts. In Lucretius it is used only these two times in this kind of context; suggestive of a connection between the two. But compare 5.39-42 with 5.992-3:

> …..ita ad satiatem terra **ferarum**
> nunc etiam scatit et trepido terrore **repleta est**
> per *nemora ac montes* magnos *silvasque* profundas;
> quae loca vitandi plerumque est nostra potestas. (5.39-41)
>
> et *nemora ac montis* gemitu *silvasque* **replebat**
> viva videns vivo **sepeliri** viscera busto. (5.992-3)

In the proem to Book 5 Lucretius pre-empts his horrible description of the mauled caveman, talking of the horror of beasts in the woods. The verb *replere* (in the passive at 5.40) is connected at that point too, then to death.



While in Book 6 it is the sacred halls of the gods which are filled with death (the temples are literally filled with corpses), in Book 5 the groves, mountains, and woods were filled with *gemitus* of the dying man (5.992). This contrast between the places which are 'filled' is suggestive of the critical difference between the relative stages of the development of man. In Book 5, it is made clear that irrational fear simply does not exist. It is important, in fact crucial, that *religio* has not been invented at that point in man's cultural development (this, we are told, comes about when man dreams of gods at 5.1161-82). But in Book 6, *religio* does exist: the mention of the *sancta deum delubra* confirms an established religion at the time of the plague. The reader is aware, then, that *religio* exists in Athens at the time of the plague, but the manifest suffering (not only here but also in the Book 5 passage) makes clear Lucretius' stance on religion: irrespective of adherence to religious beliefs, suffering is, at times,

inevitable.[61] Religion will not save mankind. In fact, it makes matters worse, as we see in the chaos of the plague. The fact that men shed further unnecessary blood seeking proper funeral rites (6.1282-6, 1247-51) illustrates the dangerous nature of religion (recalling the point of the Iphigenia passage at 1.91-109).

In the situation described in Book 6, it is clear again and again that only rational behaviour might have improved matters. Rationality and a recognition that religion would make nothing better would have saved the lives of those who died in vain in the bloodshed.[62] In discerning this crucial lesson, it is difficult to suppose that the ending is as bathetic or as strange as it might have previously appeared. It is through argumentative connection to the Book 5 passage that it becomes even more obvious that rationality is absolutely crucial to man's happiness: the Athenian citizen is actually worse off than the caveman who is attacked by the beast. At least the caveman does not fall prey to irrational fears: he does not waste his life worrying about death itself (though he is, of course, afraid of pain).[63] In either case, one can see that misery befalls those without *ratio*, whether a caveman with no *ratio* or a 'civilised' person who misapplies it. They do not, in either case, possess *vera ratio*.[64]

Another connection to the early development of man also highlights the idea that only rationality, and not adherence to religion based on false beliefs, can help mankind. The connection is found where the men suffering from the plague plunge themselves into the 'icy rivers' (*fluvios…gelidos* at 6.1172), while in Book 5 we saw

[61] Cf. above, pp.105-8.
[62] Proper burial is, according to Lucretius, futile, since he states in Book 3 that the fate of the body after death is of no concern to the one deceased (3.870-93).
[63] Another connection between the two passages is shown primarily through repetition of the infinitive *sepelire* in its active and passive form. Neither the bodies in the temples nor the man in the woods are being buried according to the correct religious custom of the state. The account in Book 6 revolves around the conflict between neighbours to bury their own over and above all others; in Book 5 the caveman 'sees himself as living flesh buried in a living tomb'. Religion is missing in the first account of gruesome death since it has not yet been created; it is missing in the second account owing to its utter futility in the hopeless situation of the plague. Religion is shown to be entirely without point and without benefit.
[64] Of course, the reader of *DRN* can only be the 'civilised' person who misapplies *ratio*, since the time of cave-dwelling is (obviously) over.

men throw themselves on the ground to sleep at night (their development had not yet reached the point of homes):

> Saetigerisque pares subus silvestria **membra**
> **nuda dabant** terrae nocturno tempore capti,
> circum se foliis ac frondibus involventes. (5.970-2)
>
> in fluvios partim gelidos ardentia morbo
> **membra dabant nudum** iacientes corpus in undas (6.1172-3)

The verbal links are clear: not only vocabulary but also the proximity of the three words and the first position of *membra* in the triplet are duplicated. As I mention above, the people in each story are manifestly different in terms of their developmental stage: the men in Book 5 are culturally primitive, while the Athenian citizens are much more advanced. However, by creating bridges between the men at each developmental stage, there is a suggestion that the cultural men of Athens are, in some ways, just as primitive, and again, just as miserable, as the cavemen of Book 5. In fact they have been seen to be even more miserable.[65] We know that there is no religion at that point in man's development in Book 5, while there is religion in Athens at the time of the plague. Again, in each situation, religion is no help. In the case of the cavemen, the way in which they live is comparable to the manner of beasts, and as we have seen above, neither religion, nor lack of religion will prevent an inevitable death (in Book 5 at the jaws of a beast). The important point is that in either case, rationality is crucial. Without this, man would be no better off, or even worse, than the cavemen of Book 5, even if he is part of a 'civilised' society.

In this part of the chapter I have proposed that the ending of the poem draws on earlier portions of the poem, and picks up themes which occur throughout *DRN*. This interaction between different parts of the poem is something which occurs throughout *DRN*, and it by no means stops in Book 6. Lucretius drills home the importance of

[65] On the primitivism versus progressivism debate in Lucretius, see Campbell (2003), 11 and *passim*; cf. Blickman (1970), 173.

ratio, first by showing the risk of misery brought on by *religio*; second by showing the benefits of using *ratio*. Lucretius tells the reader, in the final lines of the poem, that if she does not live by the philosophy she has learned in reading the *DRN* , there is no point in her having read it. She may as well be an illiterate sleeping on the ground; in fact, she will be in a worse position, given that religion has now been established. Verbal repetitions illustrate a broader argumentative connection between the finale and other parts of the poem; this allusion serves essentially to repeat the importance of living, and above all of thinking, in a rational way. In the plague-description Lucretius builds upon the crucial arguments against the fear of death in Book 3—arguments which, as scholars have shown, Lucretius deals with in a highly rhetorical way—to encourage the reader to use rationality even when one is on the point of death.[66] Lucretius uses the plague to attempt to illustrate to the reader in a horribly vivid way the ways in which rationality would improve her life when facing death, in an attempt to deal with the missing, or at the least severely glossed-over, fear of dying, in a test-situation.[67]

What is more, by building a bridge in the reader's mind from primitive man in Book 5 to cultured man in Book 6, Lucretius makes a final case that adherence to Epicurean philosophy alone will allow man to progress. Only rationality and science will render man truly civilised and without cares. In a more general sense I have also argued that the broader themes indicated by Lucretius at each of the six book endings in *DRN* illustrate an argumentative unity,[68] from which the sixth book's finale does not deviate; and that the theme of death at the finales of Books 2, 3, and 4, is enclosed by the theme of rationality, and using rationality in one's life, at the closes of Books 1

[66] For the rhetoric of Book 3, see e.g. below, pp. 121-2.
[67] See fn. 37, p. 102.
[68] Minadeo (1965), *passim*, esp. 460 sees unity in the closes and openings of the books of *DRN*. He views them as microcosms from which conclusions about the poem's design may be drawn.

and 6 respectively. The consistency of the arguments at the end of the poem should show that we may usefully and accurately interpret the ending of the poem as if it is that which Lucretius intended. Consequently, there is less reason for concern that incompletion may have repercussions for the state of the text (and in particular, for the rightful place of repetitions). Indeed, repetitions have been shown to illustrate the complexity but also the unity of Lucretius' argumentative structure.

2.3 Multi-linear Repetitions: signs of incompletion?

I said above that scholars have often seen critical problems with the many long repetitions in the poem. Long repetitions are frequently bracketed or deleted by editors and commentators;[69] where editors believe the duplication to have been written by Lucretius himself and not a later hand, critical notes frequently suggest that Lucretius would have removed a repetition or replaced it with a more suitable passage (perhaps with the same overall argument), had he lived long enough to effect it.[70] Gale rightly points out that the objection to lengthy repetitions is primarily an aesthetic one.[71]

When one considers that repetitions (often with variations) occur on every other scale in *DRN* (whole verses, phrases, frequently repeated words, and even sounds, syllables, and letters), it seems unnecessary, even problematic, to suppose that longer repetitions in *DRN* are inevitably a result, or proof of, incompletion, lack of proper

[69] e.g. for the deletion of 1.44-9 see fn. 78; Lachmann (1850), in his note on 1.922 refused to believe Lucretius would have repeated 1.926-50 at 4.1-25, saying in his comment (my emphasis): *sed etsi concedamus haec ab utroque loco non aliena esse, tamen quibus versibus aliquis iam usus sit apto loco, eosdem inrevocatum iterare in alius libri prohoemio et pauperis ingenii est et nullius iudicii.* Cf. Gale (1994b), 1.

[70] For this view see, e.g. Smith (1992), nn. 182, 250-1, and 331. Acceptance of authorial authenticity does not, therefore, indicate acceptance of repetition as a meaningful and effective strategy. Deufert (1996) argues differently, that the long repetitions are the result of later interpolators. Cf. p. 3, fn. 4.

[71] Gale (1994b), 4; cf. 2.

editing, or textual corruption after the circulation of the poem.[72] Gale urges a more reasonable critical approach:

> 'Rather than hypothesizing about the poet's "probable intentions", we should make the best of the text as it has come down to us. Considerations of incompleteness should only be used as a last resort, and not be substituted (as they so often have been) for a real attempt to get to grips with the structure and meaning of this subtle and complex poem.'[73]

In examining repetitions and internal allusions, I have found that Lucretius, when repeating himself, has in mind the argumentative unity and clarity of his poem, and above all else, persuasion. This is no less the case with multi-linear repetitions than it is with other shorter varieties of repetition. Apart from this, as I describe in the previous chapter, multi-linear repetitions are also an obviously Homeric feature, and indicate Lucretius' debt to the Homeric epic as well as his consciousness of his status as an epic poet.[74] I argue that long repetitions ought not to be seen as evidence that *DRN* was left unfinished, nor is there a need to view them as later insertions or corruptions, and moreover I suggest that they should be afforded the same degree of critical treatment as any other feature of Lucretian style and strategy.

I do not wish to take a dogmatic approach to the multi-linear repetitions in Lucretius: there may be occasions where a repetition ought to be deleted, and multi-linear repetitions ought to be considered on a case-by-case basis. But I do want to propose that repetitions are given more credence than they have been to date as part of broader didactic strategy, and that they should not be dismissed out of hand as symptomatic of incompleteness or as later interpolation.

[72] See Introduction above, pp. 2-25.
[73] Gale (1994b), 12.
[74] Self-consciousness is named by Volk (2002), 6 as a feature of the didactic poem (see too 6-25 for the full chapter, and 73-4 for the feature in Lucretius in particular); the specific brand of self-consciousness of genre which I propose may also contribute to the same meta-poetic feature.

There are numerous multi-linear repetitions in *De Rerum Natura*,[75] some of them exact, some inexact.[76] Of the more famous repetitions, the passage at 1.44-9 is repeated at 2.646-51 without a single difference, while the repetition at 1.146-8= 2.59-61 = 3.91-3 = 6.39-41 (and 2.55-8 = 3.87-90 = 6.35-8) similarly contains no variations between versions.[77] The presence of 1.44-9 is particularly controversial,[78] while the duplication of 1.146-8 is more straightforward, and it is generally accepted as being written by Lucretius.[79] To my mind the presence or absence of variations between repetitions cannot sensibly or convincingly be used to prove or argue for a

[75] The multi-linear repetitions are found at: 1.44-9 = 2.646-51; 1.76-7 = 1.595-6 = 5.89-90= 6.65-6; 1.146-8= 2.59-61 = 3.91-3 = 6.39-41 (and 2.55-8 = 3.87-90 = 6.35-8); 1.153-4 = 6.56-7 = 6.90-1; 1.670-1 = 1.792-3 = 2.753-4 = 3.519-20; 1.738-9 = 5.111-12; 1.789-93 = 2.750-4 (1.670-1 = 2.753-4 = 3.519-20); 1.823-5 = 2.688-90; 1.919-20 ≈ 2.976-7; 1.926-50 ≈ 4.1-25; 1.1021-8 ≈ 5.419-31 (1.1021-3 = 5.419-21); 2.29-33 ≈ 5.1392-6; 2.55-61 = 3.87-93 = 6.35-41; 2.177-81 ≈ 5.195-9; 2.478-9 = 2.522-3; 3.31-4 ≈ 4.45-8; 3.784-97 ≈ 5.128-41; 3.806-18 ≈ 5.351-63; 4.29-30 = 4.49-50; 4.170-3 ≈ 6.251-4; 4.180-2 = 4.909-11; 4.217-9 ≈ 6.923-35; 4.774, 4.771-2 = 4.799-801 (except for small change in 4.800); 5.82-90 = 6.58-66; 5.187-94 ≈ 5.422-6; 5.269-72 ≈ 6.635-8; 6.383-5 = 6.87-9.

[76] In some places where repetitions are inexact, one might wonder whether the text ought to be changed, so that the repetitions are exact. This must be done carefully and on a case-by-case basis.

[77] Gareth Williams suggests the possibility of this constituting a Lucretian motto or chorus.

[78] Lachmann (1850) deletes 1.44-9, citing the repetition at 2.646-51, and suggests a lacuna in place of the verses: *Hos versus Marullus delendos esse vidit; quos cur ex libro II, 646 lector frustra curiosus in hunc locum transtulisse videretur, Isaacus Vossius recte aperuit: 'ut ostenderet' inquit ' Lucretium sibi adversari, qui cum deos mortalia non curare affirmet, Venerem tamen invocet'*; as do: Munro (1886[4]); Merrill (1907) who asserts that 1.44-9 'is inserted here from 2,646-651' by an interpolator'; Duff (1923); and Ernout (1948[8]). Forbiger (1828) and Brieger (1899) both delete 1.44-9 without suggesting a lacuna (Brieger notes the repetition at 2.645-50 at the bottom of the page); as do Ernout and Robin (1962) in their commentary, deleting without comment. Büchner (1966) brackets the verses, as does Müller (1975) who cites the repetition in Book 2, referring to Marullus' deletion. Like Lachmann, Munro (1896) quotes Vossius in his critical note on 1.44-9; Ernout's (1948[8]) critical note likewise illustrates the closeness with which he follows Lachmann: he writes after 1.43: 'Après ces vers, figurent dans nos manuscrits les v.646-651 du livre II qui semblent bien insérés par quelque lecteur érudit pour mettre la pensée de Lucrèce en contradiction avec elle-même.' Only Leonard and Smith (1942), *ad loc.*; Bailey (1947), who had deleted the verses in his (1921) text but changed his mind; Smith (1992); and Flores (2002) retain 1.44-9. But Leonard and Smith (1942), 79 also say: '…he may have felt within him even here the tension between poetry and science and thus have inserted the lines 44-49, from II.645-6[51] [I correct from II.645-646], which…have usually been attributed to an interpolating scribe. The fact that those explanatory lines do not explain the tension, but seem merely to reveal it, and need other lines before and after them to complete the momentum and logic of his thought may be set down to the incomplete and unrevised state of the text.' *Contra* see Friedländer (1939), 369-71, and 370: 'These six verses are the systematic culmination of the whole prooemium which without them would miss not alone its poetic unity but also its purpose as a piece of Epicurean doctrine'. Bignone (1919), 423-5 and Regenbogen (1932), 65-8, argue that 1.44-9 were put in by Lucretius himself, but that they indicate that Lucretius intended to radically alter the whole proem. Bignone proposes a lacuna before 1.44, which view I find appealing. Paratore and Pizzani (1960), *ad loc*. propose a lacuna either side of 1.44-9, which is also tempting (more so the lacuna between 1.43 and 1.44), and though they print 1.44-9, they agree with Regenbogen (1932) and Bignone (1919) that the passage would have been revised by Lucretius later. Pizzani (1959), 70 sees a problem in finding a logical connection between 1.44-9 and the preceding and succeeding verses, and disagrees with Friedländer's assumption of a lacuna, and assessment of the verses in general (70-1). For disagreement with the idea of a lacuna before 1.44-9, see too Barra (1952), 18-19. Martin (1969), *ad loc.* evidently sees a problem with the transition of 1.49 to 1.50, transposing 1.50-61 *post* 1.135, so that 1.49 is followed by 1.62 (*Humana ante oculos foede cum vita iaceret…etc.*). See too Deufert (1996), 32-9 for arguments in favour of the deletion of the 'interpolierten Versen 44-9' (39).

[79] See, e.g. Bailey (1947), 162 who views the passage as part of a strategy to state an '"axiom" of his theory'.

given repetition's rightful place in (or removal from) the text.[80] That said, it is easy to (tentatively) imagine that Lucretius would have made some minor changes between longer repetitions either in an effort to create a smoother transition within two (or more) different contexts,[81] or even through simple mis-remembering when writing a repetition from memory.[82]

Another famous long repetition in the poem is found at 1.926-50 ≈ 4.1-25; it is inexact.[83] This repetition was subject to much criticism in the past but has more recently been defended by both Gale and Conte, and before that by Smith.[84] Conte argues persuasively that 4.1-25 is in its rightful place as a 'proem in the middle': a proem which occurs at the beginning of the second half of the work. He characterises the proem in the middle as a programmatic restart: a passage which reasserts the *quale* of the work in Callimachean fashion.[85] In Lucretius this clearly has the didactic function of reiterating to the reader the value of what he will learn in the next half of the poem; the repetition will be explored in greater detail below.

[80] Bailey (1947), 164 does not dismiss repetitions with variations, and argues that variation in some cases shows Lucretius' intent to repeat. At 164-5 he suggests that if 1.44-9 = 2.646-51 included some variety the 'argument for their genuineness there would be greatly increased'.

[81] Consider, e.g. the changes made in Homeric repetitions when a speech changes from indirect (a command to make a certain speech) to direct (the speech being given as commanded).

[82] See Reynolds and Wilson (2013[4]), 2-3 for a similar point about intertextual references and the practicalities of using a book-roll.

[83] Variations occur in 1.949-50 and 4.24-5. Elder (1954), 89-90, n.3 attributes this doublet, rather than to incompleteness, to 'Lucretius' own carelessness'. At 4.24 *perspicis* from 1.949 is replaced by *percipis*: I wonder here whether the reading should be identical in each place. It is certainly paleographically feasible that one was replaced by another in copying, and that verses 4.24 and 1.929 were identical in the archetype. Aside from this example, forms of *percipere* are more common in *DRN* (the verb occurs 16 times in the poem, to *perspicere*'s 5) so for that reason one could lean towards reading *percipis* in both places. For the implications of repetitions on textual criticism, see Deutsch's (1939) appendix at 177-9. NB that Deutsch favours the MS tradition where possible.

[84] Smith (1966), 78 pre-empts Conte's proem in the middle somewhat: 'Lucretius is more concerned with reminding Memmius at the half-way mark of the philosophical purpose of his work than with repeating what he must have known to be a *lumen ingenii*'; Gale (1994b); and Conte (2007); cf. Flores (1994). It is worth noting that the original publication of Conte's chapter was in 1992, though Gale does not seem to be aware of it. Lambinus (1583) alone of early editors retains the repetition: he points out the repetition at 4.1-25 saying simply that he has explained the verses already above at Book 1. The presence of the duplication in Book 4 was especially subject to scepticism: e.g.: Forbiger (1828), Grasberger (1856) (30: *Primum fieri non potuit, ut poeta, cum aperto consilio singulis libris exordium imponeret, hunc solum quartum ita relinqueret mutilum*.), Munro (1886[4]), Diels (1923) (who thinks with Mewaldt (1908) that a change in the order of Books 3 and four resulted in a duplication which should never have been left there), Leonard and Smith (1942), Ernout and Robin (1962[2]), Büchner (1966), and Müller (1975). Brieger (1899) brackets 4.1-25 and retains 1.926-50. There are also some who do not believe the repetition belongs in Book 1, but these are fewer: Lachmann (1850) who also brackets 4.1-25 but does not delete, Munro (1896), Brieger (1894), and Bailey (1921) bracket 1.926-50. But Giussani (1896-8), Martin (1969), and Brown (1987) retain the passage in both locations.

[85] For the phenomenon in Latin literature in general (esp. Vergil), see Conte (2007), 219-43.

In general, long repetitions in Lucretius serve a variety of didactic purposes, such as emphasis of a given thesis, generation of argumentative unity between more than one passage and even topic, and the illustration, for the reader, of her own progress; the various effects of different types of repetitions and internal allusions will be explored in greater depth in the next chapters, and especially in Chapters 3, 4, and 5.

2.3.1 Repetition and Allusion for Unity

2.3.1.1 Emphasis

As will be shown of repetition on a small-scale,[86] longer repetitions in *DRN* are also seen to emphasise a particular philosophical premise or idea which is considered 'significant'.[87] Two examples of such repetitions occur between Books 3 and 5.[88] The first example shows emphatic repetition of the notion of everything being in its right place at the right time.[89] 3.784-97 argues that the mind cannot exist outside of the body, and contains an example of *reductio ad absurdum*. It is part of the much broader argument for the mortality of the soul, found at 3.417-829. The duplication of 3.784-97 at 5.128-41 occurs within Lucretius' argument that the world is not even animate—it cannot possess the *animi natura…consiliumque* (5.127)—much less divine (the whole argument occurs at 5.110-45). Both passages are seen below, with minor variations emboldened:

> **Denique** in aethere non arbor, non aequore **in alto**
> nubes esse queunt nec pisces vivere in arvis
> nec cruor in lignis neque saxis sucus inesse:
> certum ac dispositumst ubi quicquid crescat et insit.

[86] e.g. 1.483-6, 1.705-15, 1.835-6, 2.216-62, 2.333-41, 5.498-508. For a more complex use of polyptoton and small-scale repetition, see 5.3.4.
[87] See p. 23, fn. 55. Cf. Gale (1994b), 5-6, and Volk (2002), 76-7.
[88] cf., e.g. 5.82-90 = 6.58-66.
[89] One might extend this to the idea that there are repetitions in the right place at the right time. For the notion of the text reflecting the world generally, see Chapter 5, below.

sic animi natura nequit sine corpore oriri
sola neque a nervis et sanguine longius esse.
quod si posset enim, multo prius ipsa animi vis
in capite aut umeris aut imis calcibus esse
posset et innasci quavis in parte soleret,
tandem in eodem homine atque in eodem vase manere.
quod quoniam nostro quoque constat corpore certum
dispositumque videtur ubi esse et crescere possit
seorsum[90] anima atque animus, tanto magis infitiandum
totum posse extra corpus **durare genique.** (3.784-97)

sicut in aethere non arbor, non aequore **salso**[91]
nubes esse queunt neque pisces vivere in arvis
nec cruor in lignis neque saxis sucus inesse:
certum ac dispositumst ubi quicquid crescat et insit.
sic animi natura nequit sine corpore oriri
sola neque a nervis et sanguine longius esse.
quod si posset enim, multo prius ipsa animi vis
in capite aut umeris aut imis calcibus esse
posset et innasci quavis in parte soleret,
tandem in eodem homine atque in eodem vase manere.
quod quoniam nostro quoque constat corpore certum
dispositumque videtur ubi esse et crescere possit
seorsum anima atque animus, tanto magis infitiandum
totum posse extra corpus **formamque animalem** (5.128-41)

This duplication has not been subject to criticism in terms of argumentative context in either place in *DRN*, though Bailey wonders whether Lucretius would have adjusted parts of the passage in Book 5 'more carefully' in revision.[92] Here, Lucretius re-uses his argument for the mortal soul (which provides a basis for his assertion at 3.830 that *nil igitur mors est ad nos*) in his argument for the mortality of the world. The micro is applied to the macro: the argument about the individual human's mortality is recycled (signalled by the repetition which fits in the later book with minor adjustments) and applied to the much greater structure of the world. The idea of re-reading the poem is again appealing: in this case, each argument corroborates the other.[93] On a later

[90] I read *seorsum* for *sorsum* at 3.796. In either case, the word is pronounced identically for reasons of scansion, but it still seems odd to retain two different versions at 3.796 and 5.140. With all else being equal, and given Lucretius' archaising style, I prefer *seorsum* to *sorsum* for the simple reason that it is older.
[91] I propose reading *in alto* for *salso* at 5.128; first, it is paleographically easy to explain the corruption of *in alto* to *salso* in copying; second, Lucretius uses the line ending frequently (4.133, 4.268, 5.465, 5.584, 5.596); third, *in alto* is Ennian (1.75, 13.369); fourth, it balances *in aethere* in the same line.
[92] Bailey (1947), *ad loc.* also says that Lucretius 'almost certainly' composed the verses in Book 3 first and transferred them to Book 5 subsequently.
[93] See p. 97.

reading one could anticipate the later repetition of the idea of the world's eventual death.[94]

One might even say that the duplication and clear connection between the passages and their contexts emphasise the difference that, where the human possesses a corporeal soul, the world possesses no such soul.[95] Further connections between the bodily soul as described in Book 3 and the structure of the world boost the idea that Lucretius intentionally builds connections between these two arguments.[96]

The second example of emphasis of a premise occurs between Books 3 and 5; it also concentrates on the inevitable death of both the bodily soul and the world:

> Praeterea quaecumque manent aeterna **necessest**
> aut, quia sunt solido cum corpore, respuere ictus
> nec penetrare pati sibi quicquam quod queat artas
> dissociare intus partis, ut materiai
> corpora sunt quorum naturam ostendimus ante;
> aut ideo durare aetatem posse per omnem,
> plagarum quia sunt expertia, sicut inanest,
> quod manet intactum neque ab ictu fungitur hilum;
> aut etiam quia nulla loci sit copia circum,
> quo quasi res possint discedere dissoluique,
> sicut summarum **summast** aeterna, neque extra
> **quis** locus est quo **diffugiant**, neque corpora sunt quae
> possint incidere et valida dissolvere plaga. (3.806-18)[97]

> Praeterea quaecumque manent aeterna **necessust**
> aut, quia sunt solido cum corpore, respuere ictus
> nec penetrare pati sibi quicquam quod queat artas
> dissociare intus partis, ut materiai
> corpora sunt quorum naturam ostendimus ante;
> aut ideo durare aetatem posse per omnem,
> plagarum quia sunt expertia, sicut inane est,
> quod manet intactum neque ab ictu fungitur hilum;
> aut etiam quia nulla loci sit copia circum,
> quo quasi res possint discedere dissoluique,

[94] In this case, Mansfeld's (1995), 225-32 idea of 'insight by hindsight' in the Presocratic philosophers can be helpful. See above, p. 50, fn. 75.
[95] This type of strategy has been described by Thomas (1999), 127 as *oppositio in imitando*; cf. Conte (1970-1), 338-42.
[96] See 5.534-63 for the world structure as described in terms of the human body; and compare *ex ineunte aevo coniuncta atque uniter apta* (5.555) and *vis animai* (5.557); with 3.743-7:

> a patribus datur et [a] patrius pavor incitat artus,
> et iam cetera de genere hoc cur omnia membris
> **ex ineunte aevo** generascunt ingenioque,
> si non, certa suo quia semine seminioque
> **vis animi pariter crescit cum corpore** quoque?

The phrase *ex ineunte aevo* occurs six times in *DRN*: 2.743, 3.344, 3.745; 5.537, 3.555, 3.859.
[97] The variations here, with *diffugiant/ dissiliant* as a possible exception, ought to be harmonised, since *qui* or *quis* could easily have been mistaken for one another, while *summast/ summa est* is a matter of orthography.

> sicut summarum **summa est** aeterna, neque extra
> **qui** locus est quo **dissiliant**, neque corpora sunt quae
> possint incidere et valida dissolvere plaga. (5.351-63)

In Book 3 the argument again comes as a small part of the broader argument that the soul is mortal; in Book 5 it too appears as a small part of a larger argument found in its entirety at 5.235-415 against the immortal nature of the world.[98] Given the close connection between arguments, if the reader found Book 3's arguments for the mortality of the soul compelling, she would also likely find Book 5's arguments for the world's mortality persuasive. As with the previous example, the separation of the two arguments, clearly and significantly interconnected, by thousands of lines of poetry would be no obstacle to detection of the repetition, since the lengthy duplication would be likely to trigger the memory of the reader.[99] This argument again becomes even more persuasive if one considers Schiesaro's theory that *DRN* was intended to be re-read.[100] This is an attractive idea and if it is the case (and I think it is), the repetitions become even more obvious to the reader. One could also say that the idea of the cycle of life is emphasised subtly, since the same passage might be said to 'live' twice. This fits well with the Epicurean theory of life and death, which really consists of recycling.[101] Finally, the reader will have already seen a connection between the body of man and the body of the world, through the allusion by multi-linear repetition from 5.128-41 to 3.784-97; the reader is therefore likely to have increased sensitivity to the connection by 5.351.

[98] On which passages see Bailey (1947), 163-5. Bailey is on the whole preoccupied with which passage was written first, e.g. 165.
[99] See above, Methodology.
[100] See above, p. 97.
[101] Epicur. *Epist. ad Hdt.* 38-9.

2.3.1.2 Argumentative and Thematic Repetition

Lucretius also reuses particular passages in order to give *DRN* argumentative unity, and to remind the reader of a given theory which appears earlier in the poem, necessary for a later argument. The significance of these types of repetitions might appear less obvious than the 'emphatic' repetitions above, which are a particularly neat case given that they refer to precisely the same thing (mortality) on a different scale. Nevertheless, one can still see meaning. The following verses first occur in Book 1 as part of Lucretius' argument that matter must be infinite:

> **Nam certe neque consilio primordia rerum**
> **ordine se quo quaeque sagaci mente locarunt**
> **nec quos quaeque darent motus pepigere profecto,**
> **sed quia multa modis multis** mutata per omne
> **ex infinito** vexantur **percita plagis,**
> **omne genus motus et coetus experiundo**
> **tandem** deveniunt in talis disposituras,
> qualibus haec rerum consistit summa creata, (1.1021-8)[102]

Here, Lucretius defends the necessity of endless matter by asserting that infinite combinations of atoms, randomly interacting and combining, were required in order for the sum of things to be constituted as they are now. Because there was no *consilium* (1.1021) for the makeup of the atoms into compounds, infinite combinations are theoretically necessary if the world is to stand as it currently does. These lines are repeated with some variations, and with expansion, in Book 5, at the start of Lucretius' argument against the divine creation of the world:

> **nam certe neque consilio primordia rerum**
> **ordine se suo quaeque sagaci mente locarunt**
> **nec quos quaeque darent motus pepigere profecto,**
> **sed quia multa modis multis** primordia rerum
> **ex infinito** iam tempore **percita plagis**
> ponderibusque suis consuerunt concita ferri
> omnimodisque coire atque omnia pertemptare,

[102] Bailey (1947), 163 points out the repetition of 1.1021-8, which is 'repeated with some changes and considerable elaboration in v. 419-31'. In the duplication, *coetus* and *motus* have swapped position in lines 1.1026 and 5.416; it seems logical to keep an identical word order in verses 1.1026 and 5.416. That said, is it necessarily more likely that a copyist memorised (and misremembered the text) than that Lucretius himself did it? Alternatively the text could have been miscopied. This change seems unlikely to be intentional in any case, so harmonisation between versions to my mind is preferable.

> quaecumque inter se possent congressa creare,
> propterea fit uti magnum volgata per aevom,
> **omne genus coetus et motus experiundo**,
> **tandem** conveniant ea quae convecta repente
> magnarum rerum fiunt exordia seape,
> terrai maris et caeli generisque animantum. (5.419-31)

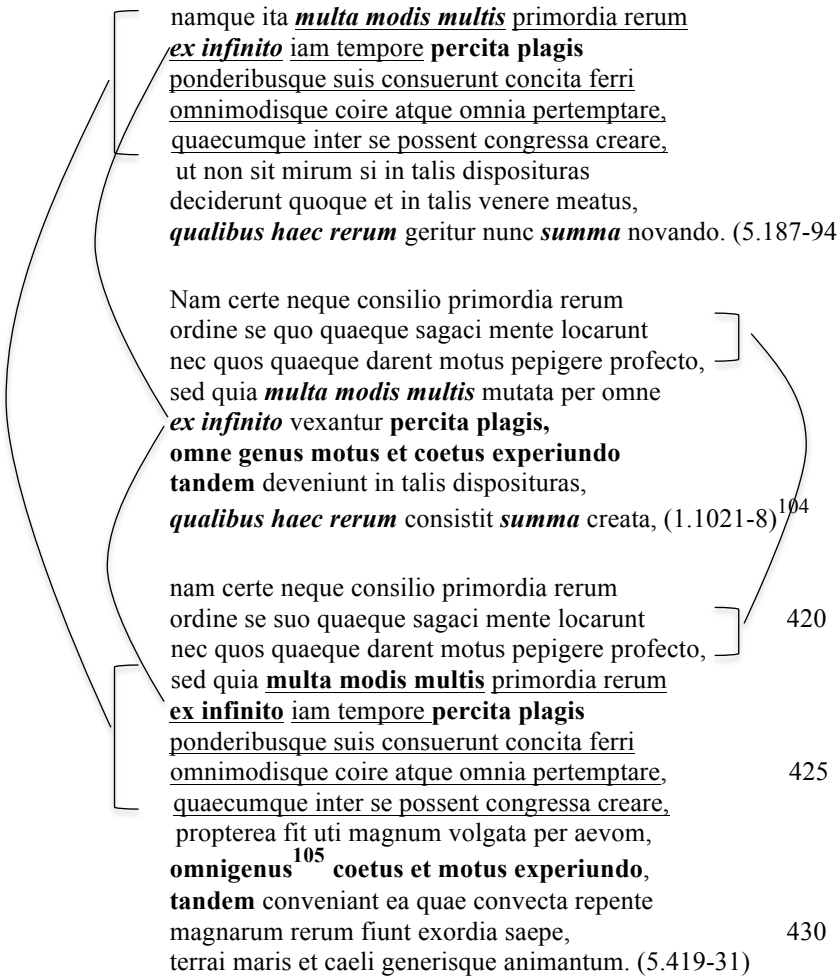
Exact correspondences are here shown in bold text, while differences are not emboldened. The substantial expansion of the Book 1 passage in Book 5 may lend credence to the authenticity of the repetition.[103] The lengthy verbal duplication points clearly to a broader argumentative connection: the explanation of atomic creation is applied to the comparable macrocosm of the world. The link between the two parts of the *DRN* lies in the random nature of atomic interaction. The assertion in Book 1 that there is no plan and no order to the arrangement of atoms is important because it reinforces the notion that many different combinations might be attempted before various materials as we know them are formed. For multiple combinations to be attempted, there must be a ready (infinite) supply of the *primordia*. In Book 5, the random nature of the combination of the *primordia* is again crucial, because an argument for a trial and error approach to the world's formation directly contradicts an opposing theory of divine creation.

Book 5's repetition reuses and recalls the information which the reader has already received about the random nature of the primordial combinations and the ready supply of infinite matter, to strengthen a case against a god's design. It is difficult to dismiss this kind of internal allusion by long repetition as late interpolation or a sign of a rough first draft.

The duplicated passage just discussed (5.419-31 ≈ 1.1021-8) is also connected to another part of Book 5: 5.187-94 (5.187-91= 5.422-6). I list 5.187-94, with

[103] See p. 14, fn. 28.

connections to 1.1021-8 italicised and connections to 5.419-31 underlined. I also supply below that passage the 'source' verses at 1.1021-8 and 5.419-31:



namque ita ***multa modis multis*** primordia rerum
ex infinito iam tempore **percita plagis**
ponderibusque suis consuerunt concita ferri
omnimodisque coire atque omnia pertemptare,
quaecumque inter se possent congressa creare,
ut non sit mirum si in talis disposituras
deciderunt quoque et in talis venere meatus,
qualibus haec rerum geritur nunc ***summa*** novando. (5.187-94 [5.187-91=5.422-6])

Nam certe neque consilio primordia rerum
ordine se quo quaeque sagaci mente locarunt
nec quos quaeque darent motus pepigere profecto,
sed quia ***multa modis multis*** mutata per omne
ex infinito vexantur **percita plagis,**
omne genus motus et coetus experiundo
tandem deveniunt in talis disposituras,
qualibus haec rerum consistit ***summa*** creata, (1.1021-8)[104]

nam certe neque consilio primordia rerum
ordine se suo quaeque sagaci mente locarunt
nec quos quaeque darent motus pepigere profecto,
sed quia **multa modis multis** primordia rerum
ex infinito iam tempore **percita plagis**
ponderibusque suis consuerunt concita ferri
omnimodisque coire atque omnia pertemptare,
quaecumque inter se possent congressa creare,
propterea fit uti magnum volgata per aevom,
omnigenus[105] **coetus et motus experiundo**,
tandem conveniant ea quae convecta repente
magnarum rerum fiunt exordia saepe,
terrai maris et caeli generisque animantum. (5.419-31)

The recurrence of the verses from Book 1 (italicised) at this point is not at all surprising, given the context of this particular allusion (at 5.187-94). At 5.187-94 Lucretius is part of the way through a series of arguments refuting directly the notion that a god (or gods) made the world for man. This argument in its entirety is found at 5.156-235. The verses at 5.187-91 are repeated exactly at 5.422-6.

At the particular point at which the repeated verses at 5.187-94 are found, Lucretius asks from where the gods would have received an idea or a pattern for making the world as it is, and restates the random nature of the world's formation,

[104] Bailey (1947), 163 points out the repetition of 1.1021-8, which is 'repeated with some changes and considerable elaboration in v. 419-31'.
[105] It strikes me this should be harmonised to what is in 1.1026.

saying that the *primordia* are accustomed to *omnimodisque coire atque omnia pertemptare* (5.190=5.425). Randomness and a rejection of a particular order to atomic arrangement are used to first refute the notion of a divinely created world. The reader then sees further allusion to both passages later in Book 5 (5.422-6 and 5.419-31 as a whole), at the description of the world's birth. 5.419-31 is a synthesis of, first, the assertion in Book 1 that the world as it stands is the result of the coincidence (without plan or design) of atoms, and second the statement in Book 5 (at 5.187-94 and more broadly at 5.156-235) that the gods did not create the world. The combination of the two arguments, and reapplication into the positive *description* of how the world was formed (by atomic processes learned in Book 1, but without the gods' design), is signposted by the extensive repetitions and allusions to the earlier passages. The arguments are unified and drawn together, but also made more complex by later applications of the fundamental theses of *DRN* to more complicated statements about the creation of the world: first, that the world was not created by gods, and second, *the ways in which* the world had its origin (not by the action of the gods).[106]

Another dismissal of divine creation sees Lucretian large-scale repetition used. A multi-linear passage which occurs as part of an argument against divinely led creation in Book 2 recurs in Book 5:

> **nam quamvis** rerum ignorem primordia quae sint,
> hoc tamen ex ipsis caeli rationibus ausim
> confirmare aliisque ex rebus reddere multis,
> nequaquam nobis divinitus esse **creatam**
> naturam **mundi**: tanta stat praedita culpa. (2.177-81)
>
> **Quod si iam**[107] rerum ignorem primordia quae sint,
> hoc tamen ex ipsis caeli rationibus ausim
> confirmare aliisque ex rebus reddere multis,
> nequaquam nobis divinitus esse **paratam**

[106] Cf. p. 95-7.
[107] Could this be a corruption? The other variations between the passages might also be altered to read as identical but I am inclined against this. Perhaps this is a good example of a passage Lucretius may have slightly mis-remembered in writing the repetition from memory.

naturam **rerum**: tanta stat praedita culpa. (5.195-9)[108]

In Book 2, the passage appears as a brief refutation of divine creation.[109] The argumentative connection to 5.195-9 which is part of the extended argument against the gods having made the world is obvious. 5.195-9 begins the argument against creation which focuses on *culpa*, in which Lucretius essentially states that the world has far too many flaws for it to have been divinely created by a beneficent god. The entire *culpa* argument is found at 5.195-234,[110] and concludes the anti-design part of the argument found in full at 5.156-234. Such close repetition of multiple lines may remind the reader of the basic principles (focusing on atomic motion and makeup) contained in Book 2, knowledge of which the account of the world's birth (to follow later at 5.416-508) relies on. The more detailed discussion of the world's *culpa* also builds on the mention of *culpa* from Book 2, and could have eased the reader in to ideas which she may have found uncomfortable on a first reading. Still the echo of the already damning conclusion, *tanta stat praedita culpa*, rings in the ears.

Another long repetition occurs between Books 2 and 5, in which Lucretius describes earlier man lying under trees enjoying simple pleasures:

cum tamen inter se prostrati in gramine molli
propter aquae rivom[111] sub ramis arboris altae
non magnis opibus iucunde corpora **curant**,
praesertim cum tempestas **adridet** et anni
tempora **conspergunt** viridantis floribus herbas. (2.29-33)

saepe itaque inter se prostrati in gramine molli
propter aquae rivom sub ramis arboris altae
non magnis opibus iucunde corpora **habebant**,
praesertim cum tempestas **ridebat** et anni
tempora **pingebant** viridantis floribus herbas. (5.1392-6)

[108] *culpa* is perhaps an odd word-choice, given that there is in some sense a personal element to the word, and that the verses each denounce the notion of intelligent design. For *culpa* as *malum per scelus vel neglegentiam admissum* or *iniuria*, see *TLL* 4.1297.6-1301.45 s.v. *culpa*, i.; it is later appropriated *apud ecclesiasticos de peccato originali*: *TLL* 4.1302.52-66 s.v. *culpa*, ii.b.

[109] A lacuna, likely 52 lines long, was posited by Pontanus. According to him the lost passage probably contained the beginning of an anti-creation argument which continues at 2.165.

[110] Lucretius even signposts the later, fuller, explanation, with line 2.182: *quae tibi posterius, Memmi, faciemus aperta*.

[111] I alter Martin's orthography here because in my view here the repetitions should certainly be uniform. *rivom* is slightly preferable by virtue of being in keeping with Lucretius' frequent archaic spellings (on which Munro (1886[4]), 8-10 is helpful).

The passage in Book 2 arrives as Lucretius expresses the Epicurean view that luxurious goods are unnecessary for *ataraxia* and *aponia*: man can attain these without the use of expensive goods or entertainment.

In Book 5 the duplication comes at a point where Lucretius explains a relatively advanced stage in man's developmental history, where he has learned to sing and also to invent and play musical instruments. Lucretius applies an earlier philosophical assertion about luxury and pleasure to the more concrete, and arguably more relatable, example of mankind's history, and uses repetitions to indicate the argumentative link.[112] But the changes here seem deliberate, especially given the change in tenses. Smith suggests that the alterations 'fit' the Book 5 passage 'into its new context'.[113]

The Book 5 passage is connected contextually to the proem of Book 2 by the indication that mankind had a point in their natural development at which they had none of the luxuries referred to in Book 2, and it was at this time that they enjoyed the peace which is also attainable for the contemporary reader. There may be an indication that such peace which more primitive man enjoyed is desirable, though it need not indicate a primitivist attitude on Lucretius' part, as many have argued.[114] The reader can understand the slow progression of man and that there were positive (as well as negative) aspects to early man's life. The main point one should take from this is, I think, that the time one lives in is—to a point—irrelevant. Lucretius believes that Epicureanism is attainable for his contemporaries: while it was not attainable (of

[112] Farrington (1953), 59-62 rightly points out the significance of the connection between the two passages, though arguably he overstates the primitivist aspects of the argument in Book 5. While he correctly indicates that Lucretius rejects any perspective which would place importance on luxurious goods, and this is certainly implied in the repetition at 5.1392-6, this is clearly not the main argument found at this point of *DRN*. See esp. 61-2.
[113] Smith (1966), 79. Smith suggests the possibility that the repetition is not wholly-consciously done.
[114] e.g. Beye (1963), 160-9, who sees pessimism throughout *DRN*; Lovejoy and Boas (1935), 222-42, esp. 235. *Contra* Campbell (2003), at e.g. 11; Furley 2007, 165 calls the debate 'quite beside the point', and dismisses Beye's (1963) view, at 166, of a contrast between 'innocence and serenity in ignorance, set beside viciousness and misery in knowledge' as 'exaggerated nonsence', at 170. Cf. Blickman (1989), 173.

course) until after Epicurus' life, in the present time the only salvation for the desperate state of mankind is, in Lucretius' view, to adopt Epicurean attitudes to one's life—and death.

2.3.2 Repetition which Shows the Reader her Progress

In Section 4.3 I will explore a function of repetition and internal allusion which renders the reader aware of her own progress, inducing her to continue learning from *DRN*. This same function may be seen in long repetitions. A famous repeated passage which first occurs early in the poem removes all power from the gods; these lines form an explicit statement of Epicurean theological ideas and build upon the first part of the *tetrapharmakos*: that god presents no fears:[115]

> omnis enim per se divom natura necessest
> inmortali aevo summa cum pace fruatur
> semota ab nostris rebus seiunctaque longe;
> nam privata dolore omni, privata periclis,
> ipsa suis pollens opibus, nil indiga nostri,
> nec bene promeritis capitur nec tangitur ira (1.44-9 = 2.646-51)[116]

The passage at 1.44-9, repeated at 2.646-51, is controversial, as I mention above, pp. 119-20. Most editors remove or bracket the verses from Book 1.[117] Despite printing the verses in both places in his edition, Lambinus notes that the passage is absent from Book 1 in some of the manuscripts (*Hi sex versus, ut docti monuere, a*

[115] See Epicur. *Sent.* 1-4; the translation is from Sedley (1998), 163.
[116] Martin (1969) reads *divum* at 1.44 but *divom* at 2.646. I propose *divom* at both points; he reads *neque* at 2.651 but *nec* at 1.49; I propose *nec* in both places.
[117] Lachmann (1850) removes the passage with only a critical note indicating the repetition of 1.44-9 at 2.646 as his explanation. Others who remove the passage include: Munro (1886); Giussani (1896-8); Duff (1923); and Brown (1984). Of these, Giussani, *ad loc.*, believes the passage in Book 1 to be an interpolation. Bailey (1947) argues convincingly for its retention, and also gives a summary of earlier editors' and commentators' views. Bailey changed his mind twice about the verses: in his (1900) edition he retains the lines, but as I mention in fn. 78, he removes them in his (1921) edition. Duff (1923) believes that 'some ancient reader' included the lines from Book 2 in the margin of Book 1, 'in order to confute Lucr. out of his own mouth' (Duff, 1923, on 1.44-9). Elder (1954), 96-9 justifies most sensibly the presence of the whole proem (at 1.1-49). See esp. 96-8 for his persuasive defence of 1.44-9: 'lest the reader be misled by myths about Venus…[1.44-9] tells him the truth about the gods in straightforward language' (98).

quibusdam veterum librorum absunt. Et sane abesse possunt…).[118] The absence of the verses in some manuscripts might give one cause for concern, but to this one might reasonably counter that a distaste for repetition, as in modern editions, could easily have been the motivation for an early copyist's or commentator's deletion of the passage. Bailey makes a case for retention of the Book 1 passage, using the incomplete state of the book to defend the presence of the verses there; the implication being that the verses would never have been intended to stand as they are.[119] Presumably part of the problem (aside from the idea, difficult to grasp, that Lucretius would contradict his earlier hymn to Venus with so controversial a statement) is with *enim* at 1.44, which can seem jarring. But Friedländer is persuasive in arguing that the *enim* need not be cause for objection, referring as it does to 1.38-40 not 1.41-3.[120] Have we all been misreading the passage? Modern scholars may be more receptive to the presence of the passage in Book 1, but it is still viewed as the most controversial of the repeated passages in *DRN*.[121] It is eminently possible, as an alternative to Friedländer's suggestion, that there is a lacuna after 1.43, which could also explain the abruptness of *enim*, though I prefer Friedländer's suggestion. One might also posit a lacuna in light of the abruptness too of 1.50 (especially the *quod super est*), or what is in my view preferable, Martin's (1969) neat transposition of 1.50-61 after 1.135.

[118] Lambinus (1725[4]) on 1.44. Lambinus (1570[4]), *ad loc*.: *Iterantur hi sex versus lib. 2 absuntque ab hoc loco, in exemplis Venetis recentioribus, et Florentinis, et codicibus nonnullis manuscriptis*. In the 1583[8] Frankfurt pocket edition, Lambinus includes the verses at each point again and duplicates his comment of 1570 (though there are some errors of punctuation); at 2.646-53 Lambinus (1583) only says: *hi versus positi iam sunt sup. lib. I. in principio*. Evidently Lambinus may prefer to have the passage only in Book 2.

[119] See fn. 117 for Bailey's indecision. Bailey (1947), *ad loc.* argues that the lines were written in Book 2 first, and then inserted into Book 1, but not properly adjusted to their context. Butterfield (2013) also believes the lines do not belong in Book 1 but he thinks (183) that a later hand copied the lines there; cf. Butterfield (2014), 26-7. For retention of the lines, see Smith (1992), *ad loc.* As discussed already, this is a common claim made of passages in Lucretius, and esp. of repeated passages. See, e.g. Smith's notes, (1992), 182, 250-1, and 331.

[120] Friedländer (1939), 371-2 suggests that with 1.44-9, Lucretius 'has done all he could to harmonize the mythology and the theology', and second that the *enim* refers to 1.38-40 and not to 1.41-3.

[121] In his more modern edition of Book 1 Brown (1984), *ad loc.* deletes the verses without comment.

With these complexities in mind, I suggest that the duplicated passage at 1.44-9 can be interpreted satisfactorily without recourse to deletion. My proposition is applicable with or without the lacunas I have mentioned. I think that the didactic function of the duplication is to lead the reader, once she arrives at the lines in Book 2, to recollect the same lines in Book 1, and recognise the progression of her knowledge.[122] In Book 1 the statement of divine apathy would be (and is) jarring and unsettling; in Book 2, it would be unsurprising. The duplication of the statement highlights to the reader her own advancement. This illustration of increased knowledge may also induce the reader to continue with the lessons of *DRN*. This progression of knowledge forms part of a wider-reaching strategy by Lucretius,[123] and it has been highlighted by Cox in his 1971 study of the proems of *DRN*.[124]

I suggest that the repetition (with some minor variations) of 1.926-50 at 4.1-25 can be similarly justified in the poem. Many are sceptical of the passage's placement in both locations, suspecting the duplication to be a temporary stop-gap, or the work of a later interpolator.[125] The question of the passages' authenticity is helped significantly

[122] The question of the order of composition of the books in *DRN* inevitably comes up here: how can one be sure that Book 1 was composed before Book 2? But what I am interested in here is whether the repetitions can be interpreted satisfactorily. To my mind, they often can. On the question see Bailey (1947), 33-3, who, with others before him, is concerned by the fact that Memmius is mentioned only in Books 1, 2, and 5; cf. Townend (1975). For retention of the lines in Book 2 for a different reason, see: Elder (1954), 99: 'And here, too, at the close of the Magna Mater myth, he carefully expounds the true Epicurean theory of the gods, and deliberately uses the very words that occur in 1.44-49 (= 2.646-51).' The self-conscious reader I hint at here might be an appropriate addition to Volk's (2002) idea of the self-conscious poet as criterion for the Latin didactic poem.

[123] See below, Chapter 4.

[124] Cox (1971), 7-8 points out the progressive representation of Epicurus through the *DRN*, from man, to father, to god. This may reflect the progression of divine happiness, and therefore be reflected onto the reader's progression in terms of her growing knowledge and understanding of the world, and therefore, potential for Epicurean (divine) happiness. This type of metapoetic repetition is seen too, in a different way, at, e.g. 2.478-9 = 2.522-3, which is a repetition essentially about the reliability of what follows.

[125] Lachmann (1850), Giussani (1896-8), Regenbogen (1932), and Bailey all believe the passage to have been written first in Book 1; Mussehl (1912), Mewaldt (1986), Diels (1923), Büchner (1966), and Bignone (1945-51) suppose that the lines were first the proem to Book 4. Bailey (1947), 165 believes the passage to be in its original place in Book 1, but supposes that the passage's presence in Book 4 may be explained by the idea that Lucretius 'transferred the lines from Book i as a stopgap.' Bailey (1947) on 1.921-50 concludes that 'It therefore seems probable that Lucr. intended the lines to stand in both places, though in a final revision he might have made a substitution… The conclusion therefore is

by Conte's notion of the 'proem in the middle'.[126] Conte suggests at the end of his chapter that the concept might be applied to this particular passage of *DRN*; as a complement to this persuasive idea, I suggest that the recurrence of the passage from Book 1 can be viewed as Lucretius persuading the reader, mid-way through his poem, of the necessity of continuing with the work.[127] Not only is Lucretius showing the *quale* of his poem to the reader, as Conte suggests, but also the *quare*: why she must continue with *DRN*.[128] Kyriakidis' persuasive argument in favour of retention of the lines is also helpful here: he suggests that the changes between the repetitions are purposeful and that with the mention of *utilitas* at 4.25 in particular Lucretius 'enhances the didactic nature of his work' by allusion to works such as Hesiod's *Works and Days*.[129]

The presence of the passage at 1.926-50 is adjusted in its context, and the fact that it is preceded by 1.921-4 which are entirely appropriate at that point means that the passage is not in an especially precarious position. But it may be defended further by exploring a different repetition: at 1.146-8= 2.59-61 = 3.91-3 = 6.39-41 Lucretius explains that fear must be dispelled by understanding in a metaphor of light scattering darkness.[130] This repetition is, in three cases out of four preceded by a statement that we (mankind: presumably Lucretius includes both himself and the reader) are just like

---

that the poet wrote the lines here, that he later wrote the substance of iv without a proem and placed the lines there for the time being, intending probably to come back and write another proem more on his usual and lines including the praise of Epicurus.' He also claims, on 1.921-50, that *ac persentis utilitatem* have 'the appearance of a stopgap.' Merrill (1907) and Martin (1969) print the repetition at each place.

[126] Conte (2007), 230-1 and *passim* argues convincingly for the lines' presence in Book 4 as a second, programmatic, proem; his views on the passage's inclusion in Book 1 are inconclusive. See too above, pp. 120-1.

[127] Cf. Conte (2007), 230-1. The idea of 'metaliterary enunciation' (230) is congruent too with Volk's (2002) emphasis on the metapoetic character of didactic poetry.

[128] For the proem as showing the *quid* but also crucially the *quale* of the work, see Conte (2007), 219-21. Cf. *Georg.* 1-22.

[129] Kyriakidis (2006), 609.

[130] For explanation of light and dark metaphors in Lucretius, See West (1969), 79-85.

children fearful of darkness (2.55-8 = 3.87-90 = 6.35-8).[131] The absence of this passage in Book 1 is striking. But it can make sense. If one subscribes to Mitsis' persuasive idea that *DRN* is designed so that the reader aligns herself with Lucretius and not the ignorant child-figure, then a comparison to frightened children as early in the poem as 1.142 would not be appropriate.[132] At this point, the reader may not feel learned enough in Epicurean philosophy to align herself with Lucretius; the comparison could feasibly backfire and didactic coercion would not take place. Even if one does not subscribe to this idea, one can still say that the passage would not be appropriate so early in the poem, since the reader is not *aware* of her ignorance at this point, and she may well resent such a statement before 1.146-8 where the first metaphor of darkness and ignorance occurs. Lucretius still needs to capture the benevolence of the reader.

In either case, the reader's acquisition of knowledge is important before any comparison to an ignorant child. But by line 926, the reader is beginning to have some understanding of the inaccuracy of her previous knowledge: she has just received some 800 verses of technical scientific explanation about the primordial makeup of everything one knows to exist in the world. I propose that 1.926-50 functions as the Book 1 version (at a more appropriate point of the book) of the 'missing' repetition at 2.55-8 = 3.87-90 = 6.35-8. In this way its presence in Book 1 can be justified as can its presence in Book 4 as the proem in the middle.

I have made bold in 1.926-51 the close connections to the repetition at 2.55-8 = 3.87-90 = 6.35-8 which compares 'us' to children fearful of darkness, and supplied

[131] See Lehoux (2013), 141-2 for an analysis of the passage in moral terms. See esp. 141: 'Our inability to see in the dark, remediable though it be, is at the time a blindness leading to errors in judgement about the true natures of things.'
[132] Mitsis (1992), 111-28.

this passage, as well as the statement of the necessity of the poem at 1.146-8 = 2.59-61 = 3.91-3 = 6.39-41:

> Avia Pieridum peragro loca nullius ante
> trita solo. iuvat integros accedere fontis
> atque haurire, iuvatque novos decerpere flores
> insignemque meo capiti petere inde coronam
> unde prius nulli velarint tempora Musae:
> primum quod magnis doceo de rebus et artis
> religionum animum nodis exsolvere pergo,
> deinde quod **obscura** de re tam **lucida** pango
> carmina, musaeo contingens cuncta lepore.
> id quoque enim non ab nulla ratione videtur;
> **nam veluti pueris** absinthia taetra medentes
> cum dare conantur, prius oras pocula circum
> contingunt mellis dulci flavoque liquore,
> **ut puerorum aetas inprovida** ludificetur
> labrorum tenus, interea perpotet amarum
> absinthi laticem deceptaque non capiatur,
> sed potius tali pacto recreata valescat,
> sic ego nunc, quoniam haec ratio plerumque videtur
> tristior esse quibus non est tractata, retroque
> volgus abhorret ab hac, volui tibi suaviloquenti
> carmine Pierio rationem exponere nostram
> et quasi musaeo dulci contingere melle,
> si tibi forte animum tali ratione tenere
> versibus in nostris possem, dum perspicis omnem
> naturam rerum qua constet compta figura.[133] (1.926-50 ≈ 4.1-25)
>
> hunc igitur terrorem animi **tenebras**que necessest
> non radii solis neque **lucida** tela diei
> discutiant, sed naturae species ratioque. (1.146-8 = 2.59-61 = 3.91-3 = 6.39-41)
>
> **nam veluti pueri** trepidant atque omnia **caecis**
> in **tenebris** metuunt, sic nos **in luce** timemus
> interdum nilo quae sunt metuenda magis quam
> quae pueri in **tenebris** pavitant finguntque futura (2.55-8 = 3.87-90 = 6.35-8)

Strong allusions between the passages 1.926-50 and 2.55-8 (= 3.87-90 = 6.35-8) make it plausible that the repetition absent from Book 1 is replaced by related verses at 1.926-50.[134] The connections are seen in phrases such as *nam veluti pueris* (1.936), clearly linked to the *nam veluti pueri* of 2.55 (and 3.87, 6.35), and further allusions to images of darkness and light which are obvious in the passage at 2.55-8 (e.g. *caecis…in tenebris… in luce* (2.55-6)): *obscura* and *lucida* at 1.933.

[133] I suggest reading *perspicis* at 1.949 for *percipis* at 4.24.
[134] In re-reading (see p. 97), the reader would also perhaps note allusion 'under erasure' in Book 1, for which see Fowler (2000), 151-2.

It appears that Lucretius realises that the image of the child afraid in the dark is not appropriate before 1.146-8, at which point he is still introducing the subject-matter of the poem, and such a comparison would not induce the reader to continue with *DRN*. But by 1.926 the reader would not suppose that she herself is the ignorant, fearful child, but would in fact align herself, as Mitsis suggests, with Lucretius, at this point having learned, and theoretically been receptive to, detailed physical principles.[135]

In repeating 1.926-50 in Book 4's proem, Lucretius thus uses repetition not only to emphasise the message, but also the fact that the message is important. What is more, the reader is also made aware of her own progress when attention is drawn to her previous learning, at 1.921-50 and especially at 1.936-50. Even if she is not explicitly aware of increasing understanding and decreasing ignorance at one or other point, if we subscribe to Mitsis' idea of didactic coercion, the reader will by choice align herself with Lucretius as she makes her way through the poem, and thus must necessarily implicitly recognise her progress beyond the status of the ignorant child of Lucretius' verses.

The strategy of emphasising the importance of the message is seen again in the repetition I have just discussed, at 1.146-8 = 2.59-61 = 3.91-3 = 6.39-41, where Lucretius asserts the necessity of his exposition of Epicurean philosophy. I said that in three out of four cases, the passage about children in the dark is repeated, at 2.55-8 = 3.87-90 = 6.35-8. As mentioned, the absence in Book 1 of the passage comparing mankind to frightened children in the dark may seem odd, given that elsewhere this passage goes hand in hand with the description of light (knowledge) dispelling darkness (ignorance and fear). But each time the darkness passage occurs, it is preceded more generally by a mention of fear in some capacity, and this is also the

[135] NB an alternative view, above, p. 135, if one does not subscribe to Mitsis' (1993) idea.

case with the passage at 1.146-8 in Book 1. So there are clear connections between all instances of the darkness passage nevertheless.

The root of the fear is invariably *religio*, and this is made clear in the verses preceding each occurrence of the darkness passage, and in the case of Book 1, 1.146-8.[136] What is more, each time the darkness passage occurs, it is followed immediately by scientific exposition.[137]

Each time the repetition about darkness occurs, it emphasises the crucial nature of the scientific or technical discussion which is to follow without exception. The reader knows, as she reads the technical expositions, why she must read them. Even one occurrence of the darkness passage makes clear the necessity of the scientific knowledge contained in *DRN*, but its repetition performs a clear didactic function: namely, that through reiteration this necessity is emphasised. Finally, if the reader comes to expect scientific exposition after the repeated passages about darkness and child-like ignorance, she will again be made aware of her progress, as she feels less and less like the child in the passage. After all, even if one sees didactic coercion in the comparisons to the child, it is still possible that the degree to which the reader aligns herself with the child lessens, and the degree to which she aligns herself with Lucretius increases, as she progresses in *DRN*. And even the mere fact of expecting science in some way shows a lack of resistance, which can illustrate progress.

---

[136] See: 1.62-101 for the oppression of religion, followed by 1.102-45 which aims to dissuade the reader from the feeling that she commits blasphemy in learning scientific theories, and to persuade of the necessity of the work in general; 2.1-54 for the proem which suggests that luxury will not banish fear, and concludes at 2.53-4 with the question: *quid dubitas quin omnis sit haec rationis potestas, | omnis cum in tenebris praesertim vita laboret*?; 3.1-90 cover the evils of the fear of death, and the reader is again convinced that only science can rid her of this fear; the proem to Book 6 ends with the repeated passage at 6.35-41, and before this has expressed Epicurus' achievement in allowing makind to have a *pectus pergatum*; at 6.33-4 we read the Homeric lines: *et genus humanum frustra plerumque probavit | volvere curarum tristis in pectore fluctus*; cf. 2.14-19.

[137] After the repetition in Book 1, the reader learns that nothing comes from nothing; in Book 2, the first scientific explanation of the book, about atomic motion, is introduced immediately after the repetition, at 2.62-164; in Book 3, 3.94 begins the discussion of the makeup of mind and spirit, immediately after the darkness repetition; in Book 6, line 42 begins the introduction of the skies, and the rationalisation of phenomena such as thunder.

The repeated passage at 1.146-8 is fundamental to Lucretius' message and his connection of ignorance to fear, and in turn, to his aim of destroying fear through reason. The repetition of this passage thus acts as an argumentative bridge, and even a chorus-like summation of the argument, drawing together different books and different parts of Lucretius' argument, to come to a unified aim: it is all to dispel the darkness.

2.4 Conclusion

Repetitions in *DRN*, including lengthy ones, can clearly perform meaningful didactic and argumentative functions within the poem; there is no need to dismiss them by proxy. If there is difficulty in fitting the passage into its context in linguistic terms (as was suggested of the *enim* of 1.44-9; which was solved in any case by Friedländer),[138] one might easily conclude not that the poem was so incomplete that Lucretius would have removed this temporary stop-gap, but rather that Lucretius may have ideally made some minor adjustment, or even that problems in transmission resulted in a clumsy transition. But such problems are, as I have shown, rare, and the repetitions are far from nonsensical in their position. As will be seen later in the thesis, long repetitions perform comparable functions within the poem to shorter repetitions. Longer repetitions can occur both with and without variation between versions (much like shorter repetitions), and can also perform in a variety of ways. I wanted to illustrate that they are used in Lucretius to emphasise (often fundamental) philosophical premises (which are necessary for other, later, arguments), to create obvious argumentative links between technical arguments. These arguments may be

[138] Friedländer, (1932) and see fn..

separated within the poem by a vast number of lines (as in the arguments for mortality in Books 3 and 5), to emphasise metapoetically the importance of the technical message Lucretius expounds, and to illustrate difference which the reader may perceive, in particular in her own learning and understanding of the world. Nothing could be a more persuasive inducement to read on (and re-read, perhaps) than being shown the vast progress one is making.

In general, though one might argue that some adjustments would have, ideally, been made to Lucretius' poem, if it were to achieve perfection, I would object in a theoretical sense to the possibility of achieving an ideal of perfection. I have tried to show in this chapter that the internal evidence for believing the poem to be unfinished is scant and that particular features of Lucretius' poem have been highlighted by critics and commentators as a result of the influence of a spurious biography of Lucretius, but also partly because of a scepticism towards repetition as a strategy. Belief in the incomplete state of *DRN* adds nothing to the interpretation of the poem, and has in fact often hindered our understanding of it.

The chapter has refuted the three major claims made in favour of the poem's incomplete state: first, it showed that the 'unfulfilled' promise of 5.155 could equally refer to a topic which Lucretius *does* cover in his poem, or, if such a promise is indeed unfulfilled, this might just as well be a loose end as Kenney suggests, and cannot therefore be grounds for believing the poem to be incomplete, and certainly not for the deletion of repetitions; secondly, it illustrated that the ending of the poem is no reason to believe that the poem is unfinished: it is a perfectly appropriate ending in keeping with the endings of other books, and also shows many signs of closure; thirdly, it explored the possible didactic functions of the long repetitions which in the past have been cited as evidence for the poem's incomplete state, but which have also

been believed to be spurious *because* of subscription to the belief in the incomplete state of the poem.

Even if one still believes that the poem is incomplete, I hope to have convinced first that the poem is much more complete than many would believe, second that any conviction that the poem is in some sense unfinished is insufficient grounding for scepticism towards multi-linear repetitions, and third that repetitions must be dismissed as part of the body of evidence for the unfinished state of the poem.

3

The Rhetoric of Repetition in Lucretius

Since the seminal article by C.J. Classen in 1968, scholars of *DRN* have accepted Lucretius' debt to the rhetorical tradition.[1] The scholarship has also made mention of repetition by Lucretius, yet the two concepts have not yet been united in the scholarship: the rhetorical nature of Lucretius' repetition has not been explored.[2] But as I shall show in this chapter, repetition in Lucretius finds its roots not only in the essentially epic flavour of the technique, which Lucretius wanted to exploit—as has been discussed in the two previous chapters—but also in the rhetorical tradition. We shall find here further defence for the notion that Lucretius' repetition is not, as Ingalls suggests, an author-focused strategy to aid his own composition, nor even emulation of this epic strategy alone, but rather, in addition to an homage to the epic tradition, repetition in *DRN* is a persuasive aspect of Lucretian technique which is reader-focused.[3]

I suggest too that as well as taking oratorical theory as an important starting point for his work, Lucretius may differ from Epicurus in respect of his repetition. In general I attempt to make the case that repetition, and in particular that of a more simple nature, far from being a result of poor poetry or the incomplete state of the work, is all part of a purposeful rhetorical strategy within a work of controlled direction. It is worth saying that the similarities between some of Lucretius' use of

[1] Classen (1968). Cf. important studies by Stork (1970), Wallach (1976), and Reinhardt (2002). Wallach's study explores the influence of the diatribal tradition on Lucretius' third book, and ultimately argues for a close connection between (Lucretius') didactic poetry and rhetoric, a view which I find wholly convincing. As Wallach, 1, says—and I think it is still true today—there are scholars who view the use of rhetoric as indicative of insincerity and even manipulation. Cf. Schiesaro (1987), esp. 46-9 who explores oratorical language in Lucretius and argues that Lucretius' own rhetoric is influenced by forensic rhetoric at Rome. There is in my view still more to be explored as regards the influence of the rhetorical tradition on Lucretius.

[2] The problems with the scholarly reception of Lucretian repetition have been outlined by me in detail in the introduction to this thesis.

[3] Ingalls (1971), 227-36.

repetition and rhetorical instruction may not, and need not, imply a cause-effect relationship, but my observations are to be seen against the relative absence of such features in other poetry.

The question as to how far Lucretius' intellectual debt to Epicurus extends is still a vexed one: some are more in favour of assimilating Lucretius' views with Epicurus', while others treat the authors quite separately.[4] There is not a great deal in the extant writings of Epicurus to suggest that he himself used repetition on a regular basis as a didactic aid, and certainly not enough to be able to say anything conclusive on the subject.[5] But there are a few pieces of evidence that Epicurus may, at least, have been amenable to repetition as an aid to learning.

Two of Epicurus' letters (to Herodotus and to Pythocles) begin with an expressed hope that the contents will help his addressee to 'keep [the principles] in mind', 'recall' them, or something similar.[6] The connection between the memory and a student's learning is clear, and this is something to which Epicurus is apparently sensitive. The existence of the *Ratae Sententiae* and *Vaticanae Sententiae* also leads us to this conclusion: these were surely intended as short, memorable summaries of his philosophy to be read and re-read by the student. This supposition cannot, however, prove or even suggest that Epicurus exploits the didactic and persuasive functions of repetition in the way that Lucretius does.

[4] Sedley (1998) is of the school which would propose close reliance by Lucretius on Epicurus' *On Nature*: see 155-7. Sedley believes, however, that Lucretius intended to restructure *DRN* after the 'first stage' of 'downloading' Epicurus into hexameters. He argues that Lucretius did not live long enough to effect this for Books 4-6. For Sedley's willingness to assimilate Lucretius with Epicurus—which may be due in part to the philosophical focus of his work (he frequently uses Lucretius' *DRN* as evidence for Epicurus' own work)—see more recently (2011), e.g. 44-6. For a survey of the debate surrounding Lucretius' Epicurean sources, see Schmidt (1990), 12-23; and Erler (1994), 414-16. For a different view, see Clay (1983), e.g. 31 who argues that Lucretius used no source directly.

[5] Related to this, see Fowler (2002), 196: '…there is no evidence for Epicurean interest in memory theory'. Schrijvers (2007), 272-3 has a similar view as to the use of analogy (in this specific case representation of the cosmos as *makranthropos*): 'The analogy between the living thing (ζῷον) on the one hand and the cosmos or the earth on the other is found only twice in Epicurus: once in a doxographic notice, and once, in very concise form, in a fragment from Book 11 of *On Nature*. In my opinion, it is not legitimate to deduce from these two texts that the analogical image of the world as *makranthropos* occupied a central place in Epicurus' writings. At most, there is an indication in his work of potential similarities, which as far as we know he did not develop.'

[6] *Epist. ad Hdt.* 36; *Epist. ad Pyth.* 84-5; cf. the end of the letter too, at *Epist. ad Pyth.* 116.

The beginning of the letter to Pythocles, in which Epicurus states that he is addressing a request made by Pythocles for something which would aid his memory, may suggest (and this is tentative) that Epicurus' previous works, including the *Peri Phuseos*, do not include much in the way of memory-aiding repetition.[7] But there is another piece of evidence in favour of Epicurus' use of repetition: fragment 34.24 of of the *Peri Phuseos* contains some small-scale repetition of particular vocabulary items:[8]

κἂν κατὰ διάνοιαν
δ' ε[ἴς τι] ἐκβιάζηται ἡ πρώτη σύ-
στ[α]σις τοῦ **ἀπογε«γε«ννημένου**, μὴ
ἐξ ἀνάγκης μέχρι τωνδί τινων
το[ι]ο[ῦ]δε **ἀπογεννωμέ[νου**, ἀλ-]
λὰ μέχρι μὴν τοῦ ψυχὴν γενέσ-
θαι ἢ καὶ τοσα̣[υ]τηνὶ διάθεσιν
καὶ κίνησιν ἔχουσαν ψ[υ]χὴν **ἐ-**
ξ ἀνάγκη[ς τοιοῦδ]ε ἀπογ[εννω-
μένου̣ ἐκ [τῶν τοι]ούτ[ων, μέ]χρι
δὲ τ[ο]ῦ τοιαν[δὶ ψ]υχὴν [ἢ τοιανδὶ]
[οὐκ] **ἐξ ἀνάγ[κ]ης** το[ιουδ]εὶ
[ἀπογεν]νωμέ[νου, ἢ οὐ]κ ἐπε[ιδὰν]
[πρ]οβῆι γε τ[ῆι ἡλικίαι] τ[οιοῦδ]ε **ἀ-**
πογενν[ωμ]ένου [κα-]
τ' ἀνάγκ[ην,] ἀ[λλ' ἐξ]
ἑαυ[το]ῦ δ[ὴ] ὑ[φι-]
[σταμέ]νου καὶ τ̣[ὸ] ἕ[τ]ερ[ον]
[τῆς αἰτ]ίας καὶ [ἰδ]ίω[ν]
.....αι... κἄγ [γε] νουθ[ετ
τῆ[ς] ἐξ ἀρχῆς συστατι-
καὶ, τὸ **ἀπογεγενν[η-]**
μένο[ν]· κ[αὶ] μὴ ἦι [δυ-]
να[τ]όν, ἀλλὰ τὸ **ἀπ[ο-]**
γ[ε]γε[ν]νη[μέ]νον, ⟦κ[αὶ]
μ[ὴ ἦ]ι δυν[α]τόν, ἀλ[λὰ]
τὸ **ἀ[π]ογεγεννημ[έ-]**
ν[ο]ν⟧ ποιή[σηι] μη[δὲν]
τὸ [γε] παρὸ[ν ἤ]δ[η] μη[δὲν]
τε [ἦ]ν ἢ ἄ[ν ἡ] πρώτη σ[ύσ-]
τα[σις] π[ε]ρὶ λο[ι]πὸ[ν]
εν.[...] ταβα...στ.. (34.24)

[7] *Epist. ad Pyth.* 84-5. Bailey (1926) on *Epist. ad Hdt.* 35, tells us that some consider this letter the 'small epitome', while Epicurus refers to the 'great epitome' of his *meizous biblous* (Bailey thinks this refers chiefly to the *Peri Phuseos*).
[8] There is a translation in Bobzien (2000), 324.

This may indicate that Epicurus was amenable to the repetition of items of vocabulary 'important' for a given argument. This itself would be suggestive of an awareness of the importance of repetition for learning or persuasion. The repetition one sees here is simplistic and cannot be used as indication that Epicurus frequently made use of such small-scale repetition as a didactic aid, much less that he employed anything like the complexity of repetition which Lucretius uses in his poem.

While we have seen here and in Chapter 1 that Lucretius has been influenced by certain aspects of others' repetitions (possibly including Epicurus), first, I should reiterate that Lucretius' own synthesis of so many and so varied techniques of repetition is unique in itself; second, there are remarkably complex persuasive and didactic functions of repetition which Lucretius brings out, and which I have only seen in evidence in Lucretius.

3.1 Repetition for *amplificatio*

A large proportion of Lucretius' repetition is of a relatively simple nature: it is often clear that apparently straightforward emphasis of a particular argument, premise, or even vocabulary is the reason for such repetition, and we have already seen evidence in Section 2.3 of such emphatic repetition.[9] There has been surprisingly little scholarly interest in this 'simple' repetition, but there is much work to be done in exploring the technique in Lucretius.[10] I argued in Chapter 1 that through his simple repetition in particular Lucretius likely owes a debt to Empedocles and Hesiod, and that in his emulation of epic and didactic poets he places himself within a grand literary tradition, possibly suggesting that he is the culmination of two traditions of

[9] For this view, see, e.g. Bailey (1947) 162; and more recently Volk (2002), 76-7, 99.
[10] The crossover between rhetoric and didactic is evident here: emphatic repetition not only encourages the learning of the student, but also acts persuasively, to induce the reader to hold the same position as the 'teacher'.

philosophy and natural science on the one hand, and epic poetry on the other. But simple repetition, as I shall show, frequently has rhetorical ends and may be based in part on oratorical theory. One sees it in Cicero's forensic speeches: the repetition of *inimicus* at *Pro Rosc.* 19 is evidently supposed to forcefully emphasise the fact that Titus Capito is the *inimicus*.[11] This will illustrate again that Lucretius' repetition is reader-focused, and does not stem from a need to make composition easier for the author, or even from emulation alone of such repetition.[12] Schiesaro sums up well the need for manifold influences: 'scrivere un poema filosofico, nella Roma del 1 sec. prima di Cristo, obbligava l'autore a una ricerca in molteplici direzioni.'[13]

3.1.1 Persuasive *amplificatio*: rendering the reader *attenta, docilis, benivola*

In the proem to Book 2 Lucretius makes use of the repetition of 'important' vocabulary. Deutsch notes that 'the recurrence of words, which is naturally made possible by the sense of the passage in which they recur, is clearly a didactic device used by Lucretius to emphasize the principles which he is attempting to enforce upon a skeptical reader'.[14] I find this highly convincing, though this is just one aspect of a wide-ranging strategy of many different types of repetition with varying outcomes. Further, even simple repetition—as has already been shown in a few cases—tends to

[11] Cf. *S. Rosc.* 7, (*aequa…aequiorem*), 10 (*feram…perferam*), 40 (*perspicuam fuisse*), 72 (*malefici…maleficio*), 78 (*caede…ex caede*; Dyck (2010), *ad loc.* says: 'the repetition of *caedes* with two different prepositions is meant to drive home its connection with the accusers: it is both their way of life and source of livelihood'; cf. *S. Rosc.* 82, 92 (*Romae* is repeated twice as a single-word sentence), 130: Dyck (2010), *ad loc.*: 'C. does not mind repeating *venierint* in each of the questions.' Cf. Fotheringham (2004), 253-76 on the repetition of keywords *Caec.*, esp. 265-6, 276; cf. p. 21, fn. 49. A related 'simple' repetition of synonyms may also be seen in Cicero, e.g. *Cael.* 24 (*humanissimi et doctissimi*), 25 (*patruus, censor, magister*); anaphora is also used extensively 'for effecting emphasis' (Dyck (2013), 20). See too Dyck (2013), 18-20. Cf. Powell (2013), 46 on Ciceronian style. For the rhetorical strategy of repeating significant words in Greek , see Dover (1997), 131-43. See too Hutchinson (2009), 208 for 'heap[ed] up mocking questions about Jupiter', at Lucr. 6.404-5 and Cic. *Div.* 2.45.

[12] See Introduction above, 2-25.

[13] Schiesaro (1987), 29.

[14] Deutsch (1939), 47 and see p. 3, fn. 9. NB. here that for Deutsch, the term 'recurrence' does not preclude didactic significance. For recurrence as opposed to repetition see pp. 19-20.

become more complex when analysed closely, and it will be seen in this chapter and the next two that there are often other layers to simple repetition which can lead the reader to see even more vividly the world which is being described.[15] What is more, simple emphasis can at times 'extend' to be persuasive in effect. This emphatic repetition is what will be explored here.

In the *Rhetorica ad Herennium* the author talks of repetition's use as a strategy for 'amplificiation':

> Conduplicatio est **cum ratione amplificationis** aut commiserationis eiusdem **unius aut plurium verborum iteratio**, hoc modo: 'Tumultus, Gai Gracce, tumultus domesticos et intestinos conparas!'.... **Vehementer auditorem commovet** eiusdem redintegratio verbi et vulnus maius efficit in contrario causae, quasi aliquod telum saepius perveniat in eandem corporis partem. (4.28.38)

As a work intended to increase efficacy of rhetorical speech, it is clear from this extract that the *Rhetorica ad Herennium* focuses on the audience. The author even uses emphatic repetition himself (*item informa ratio est...*2.24.37; *item vitiosum est...* 2.26.41...). These particular repetitions are comparable to phrases in Lucretius such as *illud in his rebus*.[16] Such recurring phrases will be discussed further below.

The word *suave* occurs three times in the first five lines of the second book (always in the neuter: 'it is sweet...') (2.1, 2.4, 2.5). It appears as part of a classic example of a priamel.[17] Lucretius builds up from a description of what is *suave*, to a forceful assertion of what is sweeter still than these things. As Race tells us, the '…withholding of specific information until the very end is an essential feature of the priamel', and that this is 'especially appropriate to an introduction, one of whose

[15] Where simple repetitions reveal, on closer inspection, deeper or more complex layers to their meaning, this need not mean that the 'simple' aspect of the repetitions disappears for the expert reader. I rather propose that the number of visible 'layers' to a repetition increases where the reader is more knowledgeable. Cf. below, pp. 164-5.
[16] See below, 3.4 for the function of these phrases.
[17] For more on the priamel, see Race (1982); for the priamel in an *exordium* see 22-4. Cf. above, Sections 1.4.2 and 1.5.1. It is important to note that though the priamel may contribute in a rhetorical sense, its roots are in Homer, Hesiod, and the lyric poets, as Race (1982) shows. One's mind is cast back in particular to the famous opening lines of Sappho fr. 16. On which see Race, 63.

goals is *auditorem intentum parare*.'[18] Such preparation of the reader's reception is highly rhetorical. What is more, the priamel has an archaising effect—notwithstanding that priamels are also used in later poetry—since one cannot help but think of Greek lyric poetry.[19]

The reader may be surprised that Lucretius uses a synonym for *suavis* at the point of the climax of the priamel. Rather than *suavius*, which would have scanned, Lucretius chooses *dulcius* for the neuter comparative adjective at 2.7:

> sed nihil dulcius est, bene quam munita tenere
> edita doctrina sapientum templa serena,
> despicere unde queas alios passimque videre
> errare atque viam palantis quaerere vitae,
> certare ingenio, contendere nobilitate,
> noctes atque dies niti praestante labore
> ad summas emergere opes rerumque potiri. (2.7-13)

The sudden change of adjective from *suave* to *dulcius* strengthens the force of the climax of the priamel here: the sense of the contradictory statement at the completion of the priamel is 'but nothing is sweeter than to be wise even if others are not'.[20] In short, the statement is that nothing is sweeter than to have the peace of mind which the sage posesses: to possess the ὁμοίωσις θεῷ which Lucretius mentions at 1.44-9 and 2.646-51.[21] *semota* at 2.19 and indeed the general sense of 2.16-19 (*nonne videre…metuque*) cannot fail to recall *semota* at 1.46 (=2.648) in particular and 1.44-9 and 2.646-51 in general. Repetition of a particular item of vocabulary is crucial in the

[18] Race (1982), 22; cf. Arist. *Po.* 3.14.7.1415a34-b3; *Rhet. Her.* 1.11. For the 'growing interest' created by *parallelismus membrorum* and *anaphora*, see too Race (1982), 27 where Race uses Lucr. 2.1-7 as an illustration of how 'parallelism and repetition can add considerable emotional force to the climactic term'.

[19] As well as Sappho 16, one might think too of Tyrtaeus 9. For the poems see Campbell (1967). On the idea of 'pleasure' in Epicurus and Lucretius, see above, p. 65, fn. 125.

[20] Like Race (1982), 24 and *passim*, I do not use climax as the rhetorical figure (also *gradatio*), but as the close of the priamel. For the climax of the priamel, see Race (1982), 24.

[21] See Erler (2002), 159-81 for examination of the concept, with particular discussion of the apotheosis of Epicurus in the proem to Book 5; and see Epicurus *Epist. ad Men.* 135, in which Epicurus asserts that if man practises his teachings day and night, ζήσῃ δὲ ὡς θεὸς ἐν ἀνθρώποις. οὐθὲν γὰρ ἔοικε θνητῷ ζῴῳ ζῶν ἄνθρωπος ἐν ἀθανάτοις ἀγαθοῖς. Erler argues (2002), that Epicurus' apotheosis in Lucretius should not only be read with Epicurus' writings in mind, but also against the intellectual background of the Platonic concept of ὁμοίωσις θεῷ: likeness to a god. In reading the Lucretian apotheosis of Epicurus, at 5.1-13 against a fuller philosophical backdrop the divine characteristic which emerges clearly as being attributed to Epicurus (and indeed this is the very reason for his divinity) is equanimity and therefore the happiness which one knows the gods enjoy.

priamel to build up a particular idea which will be debunked. Lucretius minimises or debunks the sweetness of other named pleasures, using the phrase *nil est* combined with a comparative of the adjective which has been repeated, but he also emphasises his assertion that nothing is more delicious than peace of mind by altering the repeated word for an equivalent, but nonetheless, inescapably different one.

One might note too the accusative noun *delicias* at 2.22—certainly more removed in meaning than *dulcius* from *suavis*, but nonetheless indicative of pleasure. The proem of Book 2 arguably reinforces the crucial nature of the teachings in the poem to one's peace of mind (so too their importance to one's happiness); the reiteration of words pertaining to sweetness and therefore pleasure serves a straightforward purpose of emphasising the pleasure available to man should he continue with philosophy, and specifically, the philosophy of *DRN*.[22] The sweetness is a metaphor for the peace of mind which will be enjoyed by those who pursue Epicurean philosophy contained in *DRN*. But it is also that which persuades the reader to continue reading, and more generally, to use Epicurean philosophy in her life: Schrijvers proposed an etymological pun between *suadere* and *suavis*.[23]

One inevitably recalls here the simile of the honey around the rim of the cup of *absinthia taetra.* Lucretius tells us at 1.933-50 that the honey represents the medium, the vessel for the philosophy: its verse-form, while the bitter medicine is the hard-to-swallow Epicurean philosophy. This appears to present a difficulty, but I think the form-content dichotomy is mere posture on Lucretius' part. One can reconcile the sweetness of the divine peace of mind available to the Epicurean sage with the momentary, even illusory sweetness of the poetic medium in which the necessary

[22] For an analysis of the visual nature of the proem to Book 2, see Lehoux (2013), 149-51. Lucretius may be seen here to confront the criticism often levelled against the Epicureans, of holding a conception of pleasure which is not recognisably pleasant.
[23] Schrijvers (1970), 36-7; and Snyder (1980), 90-108 for *paronomasia*, of which this is arguably an instance, esp. 102-8 for etymological *paronomasia*. Cf. the idea of Classen (1968), 98-9 that aesthetically pleasing quality in *DRN* is rhetorical, since it induces the reader to continue.

science is presented simply by remembering that for Lucretius, the poetic medium is the way in which the reader can attain divine peace. There can be no easy division between the process of acquiring understanding of physics and the Epicurean worldview and actually possessing it.[24] This idea is even more persuasive when one accepts too that for Lucretius the process of learning is remarkably cumulative; repetitions are a sign that he expects his reader to build on knowledge, recalling ideas and adding to them.

There is a broader point about Lucretian proems to be made here, namely that Lucretius treats each book as a kind of new beginning to the work, and even as a rhetorical *exordium*, in which he must maintain the reader's interest, and continue to render his audience *benivoli, attenti*, and *dociles*.[25] Finally, one might note, as I have above, p. 148, that there is an obvious archaising effect felt at the encounter of the priamel-form, to which the literary reader doubtless would have been receptive. Lucretius' persuasive power and originality manifests in his willingness to combine literary archaism with persuasive zeal.

3.1.2 Amplified Vision

As one continues to read Book 2, a high number of repetitions of 'significant' vocabulary becomes apparent. The first feature to note about Lucretius' descriptions of atomic movement and behaviour is a heavy reliance on examples from the reader's own experience which are applicable to the complex theories of atomic behaviour which he describes. Robert Wardy describes the inherent strangeness of describing an

[24] Against the concept of the form-content dichotomy in Lucretius, see Santayana (1910), 9: '…poetry cannot be spread upon things like butter, it must play upon them like light.'
[25] For the function of the *exordium*, see *Rhet. Her.* 1.7.11; cf. Cic. *Orat.* 2.29.128-9 for winning the audience's 'favour, enlightenment, excitement...'. For comparison to the Book 3 proem as a kind of *exordium* one might compare the proem to Book 5, which I take not to be mere eulogy of Epicurus as the commentators suggest, but rather, a rhetorical exordium to gain the audience's favour.

invisible system below the surface of everything we know, and outlines how Lucretius attempts to rid the audience of the alienation and even disturbance which such a description might invoke.[26] Wardy points out that the description of dust motes in a sunbeam at 2.112-41 is cleverly designed to bridge the gap between the microscopic bodies which are invisible to us, and larger, more familiar sights. I suggest too that by repeatedly referring to the reader's own experience (in particular, things which can be seen: *videmus* 2.68, *cernimus* 2.69, *ex oculis...nostris* 2.70, *videatur* 2.71, *pervideas* 2.90, *ostendi* 2.94, *ante oculos semper nobis* 2.113, *contemplator* 2.114, *videbis* 2.116), Lucretius attempts to remove the strange invisibility from his atomic depictions, and in so doing brings a familiarity to his descriptions.[27] As one can see, Lucretius is not afraid to vary the form of the repetition in repetition of synonymous ideas; more on variation will be explored below.[28] He emphasises the reality and familiarity of the evidence for atoms to his reader.

A part of the *Rhetorica ad Herennium* which connects image and *simulacra* with memory can illustrate the principle of the connection between them: *Imagines sunt*

[26] Wardy (1988), 112, e.g. and *passim*. See too West (1970), 262-75 and e.g. on Lucretius and the poppy seeds analogy at 274-5; and Fowler on 2.112 who notes the mention of the use of *Imagines* and *simulacra… rei* at *Rhet. Her.* 3.29. Cf. Schiesaro (1990), *passim* but esp. 21-47; Lehoux (2013) 132: 'the primary entities about whose existence Lucretius wants to convince us—that is to say, atoms and the void—are by definition not perceptible. This puts Lucretius in a particularly interesting situation, since he needs to use the senses to convince us that what the senses are reporting is not the ultimate truth about the world, but that at the same time those same senses *can* be used to lead our reason to "see" what is really lying just beneath the surface of those sensory experiences.' On the 'deception' of our senses, see Lehoux (2013), 133-4, but see esp. 134 for the problem of attributing fallibility not to our eyes but to our mind; for Epicurus' view that error creeps in not because of the fallibility of the senses, but because of our own over-interpretation, see D.L. 10.50, following Hicks (1925), and cf. Lucr. 4.379-86. For imaging in Lucretius, see Chapter 5, below.

[27] See too Wardy (1988), 121-3 for an elucidatory analysis of the passage. Cf. Keen (1985), 1 who finds the frequency of direct reader-addresses in the form of second-person singular verbs to be on average every one in eighteen lines. But see too Lehoux (2013), 136-7 who adds to Keen's count of these verbs, first person plural verbs, which allow Lucretius to put 'his arm around the reader's shoulder, so to speak'. Lehoux thus increases the average frequency of addresses to the reader to one in every eight and a half lines. Cf. Lehoux's remark at 137-8 that these addresses frequently involve the senses, and at 139, his statement that the most common sense invoked in these addresses is sight; Schrijvers (1970), 91-128; Catrein (2003), 51-8 esp. 58 for the different uses and equivalences (and importance) of the verb *videre* and *videri* in Lucretius.

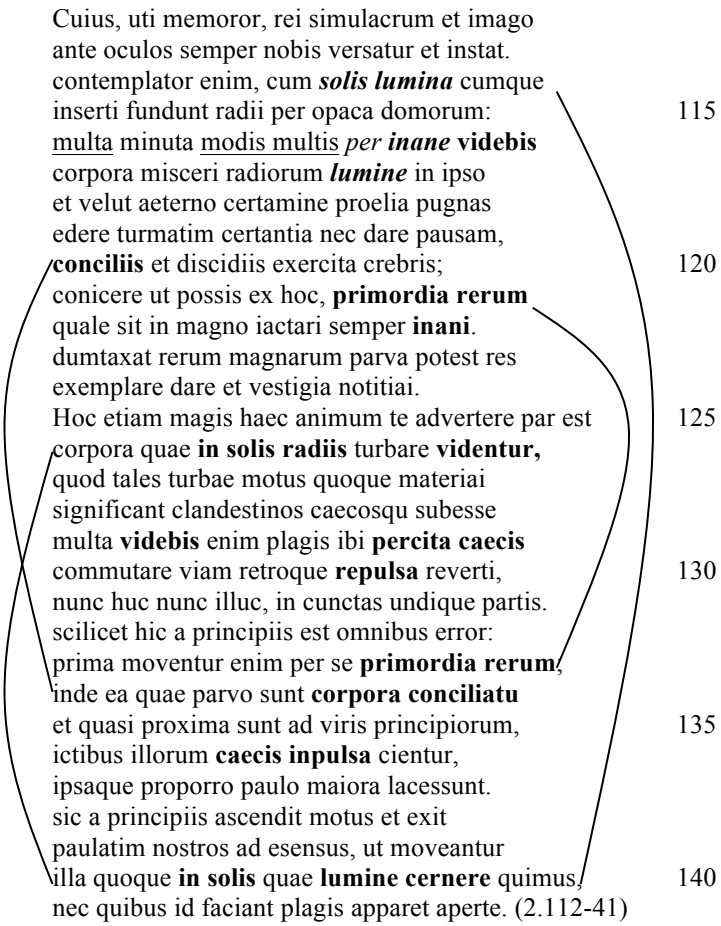
[28] For variation in *expolitio*, see below, Section 3.2.

formae quaedam et notae et simulacra eius rei quam meminisse volumus.[29] D. Fowler tells us that this concept, of the use of *imago* and *simulacrum* to recall and remember the *res* in question, would have been known to 'rhetorically educated Romans'.[30] Lucretius may have combined his understanding of the rhetorical, persuasive value of repetition with another common rhetorical concept, the use of image for memory, to create a powerful and persuasive strategy. It seems fitting that he does so for a hypothesis which is so difficult to render appealing or even non-threatening to the reader, by virtue of its atomistic size and invisible structure.[31]

3.1.3 Allusive Arguments: *amplificatio* as connection

Another, related, way in which Lucretius uses ostensibly 'simple' repetition is to connect various sections of an argument to one another.[32] One sees a comparable use of repetition to connect different clauses and sentences in Cicero.[33] Let us look at the same passage, which as I explained above uses the movement of dust particles in a sunbeam to illustrate atomic movement, at 2.112-41:[34]

[29] *Rhet. Her.* 3.29.
[30] Fowler (2002) on 2.112.
[31] This is clearly related to the use of analogy.
[32] This may be a Lucretian innovation, but for a comparable type of verbal repetition which bridges different statements or arguments from different parts of a text, cf. Cic. *Catil.* 1.1: *furor iste tuus… effrenata (…audacia)*; 1.25: *tua ista cupiditas effrenata ac furiosa…*
[33] See Dyck (2010), 15; *Rosc.* 10.
[34] Fowler is infinitely helpful on this passage, especially at 189, on 2.112-24, where he explains that the rhetorical *enargeia* 'provides us with a clear and vivid picture of the phenomenon of atomic movement, a substitue for the literal 'clear view', *enargeia*, demanded by Epicurean epistemology for objects in the physical world.' On the rhetorical use of *enargeia* cf. Schrijvers (1970), 203-6. Garani (2007), 66 explains the passage as using analogy, suggesting that the atomic motions here are explained in a military metaphor (e.g. 2.118-20 show the struggle of the atoms and 'human characteristics').



As one can see, there is a great deal of repetition of significant vocabulary here. But there are also numerous repetitions of words and phrases which connect this section about dust-motes back to the more general description of atomic movement (both individual and group-based) through the void.[35] At 2.82 Lucretius tells us that if we think that atoms do not move through the void, then [we] 'wander far from true reasoning': *avius a vera longe ratione vagaris*.[36] In the very next line, he tells us that the atoms 'wander' (using the same verb: *vagantur*) through the void, *per inane*. The

[35] There are also connections to later parts of Book 2: Lehoux (2013), 148-9 proposes that to understand 2.713-15 as having a 'secondary emphasis on non-teleological causation', one should use connections from these lines to 2.129-30, and take *caecis* not only with *corporibus* but also with *plagis*, as in the earlier passage (*plagis ibi percita caecis* (2.129)). This is indeed tempting. Though one might counter that Lucretius is not afraid to vary repetitions, and often the slight variation of word order resulting in more significant variety of outcome fits in with what he himself tells us in the *elementa* analogy at 1.192-8, *et al.*, on which see below, 5.1. On these lines see too the explanation by Fowler (2002), *ad loc.* in his introduction to the passage, esp. 191-2. He describes the argument in the form of *modus tollendo tollens*, that is 'If not-P, then Q; but not Q; therefore not not-P; therefore P' (192). He explains: 'The motion of the dust particles could not occur unless the atoms also moved…. if the atoms did not move, the dust particles would not, but we see clearly that they do…'. This inevitably leads to repeated vocabulary as we see here. In general the concept as described by Fowler shows further that repetition was a fundamental part of Lucretius' argumentative strategy.

[36] For further discussion of reiteration of verses containing *vera ratio*, see below, 4.3.1.3.

proximity of the two instances of *vagari* inevitably causes a connection in the reader's mind of the two contexts, and so he/she associates the notion of wandering far from truth with disbelief in atomic 'wandering' through the void.[37]

This instance of repetition is closely reminiscent of a technique explained in the *Rhetorica ad Herennium*, in which the same word is used, but for a different outcome: *Ex eodem genere est exornationis cum idem verbum ponitur modo in hac, modo in altera re...* (4.14.21). The verb occurs again where Lucretius emphasises the movement of atoms through the void (each time, *vagari* is seen with *per inane* in identical word position: *(magnum) per inane vagantur*, at 2.105 and 2.109). The author of *Rhetorica ad Herennium* claims that such repetition is not through a poverty of language but rather that there is an elegance in the repetition which cannot be fully explained: *in his quattuor generibus exornationum quae adhuc propositae sunt non inopia verborum fit ut ad idem verbum redeatur saepius; sed inest festivitas, quae facilius auribus diiudicari quam verbis demonstrari potest* (4.14.21).

The first coincidence of *vagantur* with *per inane* at 2.86, we should note, was also identical in terms of the words' position relative to each other, though at 2.86 the words do not make up the line ending, but are positioned in the second, third, and fourth feet of the line. In addition to the implication, through close repetition of *vagari* at 2.85-6, that not to believe that atoms move through the void is false reasoning, the fundamental principle of the atoms' wandering through the void has been stressed through *conduplicatio* of the verb *vagari* as well as the repetition (more

[37] See Lausberg (1960) i.333-5 for repetition of the same word with different meaning in consecutive verses. Fowler (2000), *ad loc.* seems undecided as to whether there is a point to the repetition of *vagari*: at 2.82 he seems receptive to the purposeful duplication; at 2.83 he is more sceptical as to the reason for the repetition of *vagari* at 2.83, even wondering whether a word like *feruntur* has been displaced in the text. He provides a useful meditation on whether 'wander' really is the correct term for the atoms, however.

frequent than the examples I have named here) of the phrase *per inane*.[38] West admits irrational correspondences to be present in some similes in the *Aeneid* which have their origin from Homer.[39] While I agree that in some cases and in other authors, correspondences can be 'irrational', in general I think that correspondences in Lucretius (and certainly the example of *vagari*) ought not to be considered this way and think in terms of correspondences which require more interpretative effort.

The extensive repetition of *per inane* warrants a little more treatment. As we know, Lucretius explains the movements of the atoms through the void (*per inane*), a key element in the Epicurean universe, and first that the atoms do indeed move, since void (as he has proved before at 1.958-1007) extends *sine fine* (2.92) and so there is no 'bottom' on which the atoms may rest. In this elucidation of the movement of atoms, the rate of repetition in particular of the phrase *per inane* is high. This repetition is, of course, again for emphasis: though the word for void is of course necessary at many points in this part of *DRN*, the same cannot necessarily be said of the whole phrase. Through repeating the phrase *per inane*, Lucretius stresses and literally restates his premise, that the atoms do indeed move through the void at all. This emphasis on the argumentative premise is clearly important and warrants such detailed attention, given that his later arguments about the nature of atomic movement will depend upon it. Indeed, this premise needs emphasis (generated through repetition), given that human experience offers no precise analogous example.

Conduplicatio cum ratione amplificationis is seen again if we consider Lucretius' argument for downwards atomic motion (with a swerve, the *clinamen*, which causes

---

[38] In the poem, the phrase *per inane* is seen 19 times in total. On the double-entendre exploited in the two uses of *vagari* see Snyder (1980), 109-10, who views the effect as sarcastic 'poking fun' at those who 'err'. I still find her analysis (and that of the commentators) lacking in the main point which is to build a connection between the two meanings of *vagari* and to emphasise what is correct, and what is not.

[39] West (1970), 263-4.

collisions).[40] After this argument Lucretius goes on to state that all atoms fall at the same rate through the void (the extract ends as this argument begins). Again, this is a difficult point for the reader, since everyday experience is not indicative of what is being claimed of atoms. The main point of the whole argument (seen in full at 2.216-50) is that the 'swerve' is the reason for atomic collision:

> Illud in his quoque te rebus cognoscere avemus,
> **corpora** cum deorsum **rectum per inane feruntur**
> ponderibus propriis, *incerto tempore*[41] ferme
> *incertisque locis* spatio depellere paulum,
> tantum quod momen mutatum dicere possis.
> quod nisi declinare solerent, omnia deorsum,
> imbris uti guttae, caderent **per inane** profundum,
> nec foret offensus natus nec plaga creata
> principiis: ita nil umquam natura creasset.
> Quod si forte aliquis credit graviora potesse
> **corpora**, quo citius **rectum per inane feruntu**r,
> incidere ex supero levioribus atque ita plagas
> gignere quae possint genitalis reddere motus,[42]
> avius a vera longe ratione recedit. (2.216-29)

The reiteration of vocabulary restates that atoms fall through the void, *per inane*, which we have already learned at 2.80-141. This is clearly for the purpose of *amplificatio*. We also see again the connection by verbal repetition of two arguments which are very much connected (in fact, the second argument (2.225-42) bolsters the main argument which is introduced first (2.216-224)). Lines 2.217 and 2.226 are almost identical: *corpora cum deorsum rectum per inane feruntur* (2.217) and *corpora, quo citius rectum per inane feruntur* (2.226), though there are syntactic differences.[43] Line 217 is part of the statement of the main argument: that the swerve is necessary for atomic collisions, while line 226 begins the sub-argument that atoms

[40] On the *clinamen* and what this constitutes, see Fowler (2000), on 216-93, esp. 304-5. Fowler, 304-5 finds Asmis' (1970), 10 and Sedley's (1976), 25-6 proposition of a 'sideways shift by one *elachiston*' more attractive than a swerve *qua* change-of-direction. But George Smith tells me that such a proposition, of a 'sideways shift… like a car's changing lanes on a straight motorway, as opposed to turning off it' (Fowler (2000), 304-5) is not in line with Newton's First Law of Motion. Cf. Purinton (1999), 260 who claims that this 'side-step' is a misreading of the text.

[41] The phrase *incerto tempore* repeats, in a form of *oppositio in imitando*, the numerous occurrences of the phrase *certo tempore*. For the concept of *oppositio in imitando* see Thomas (1999), 127. Cf. 2.259 for *nec tempore certo*.

[42] Cf. 2.62-3.

[43] See Fowler (2000), *ad loc.* for further references about the syntax in both places.

fall at the same speed through the void irrespective of mass or weight, and so collisions cannot be caused by heavier atoms' falling onto lighter ones. Both duplications occur in the second line of their respective arguments; the fact that each instance of the near-identical verse occurs very close to the beginning of each argument is another correspondence,[44] and the repetition in general serves to show to the reader not only the relevance and importance of the second argument to the main statement that the swerve of atoms is necessary for collision, but also the inter-connectedness of both arguments. The repetition of *incert*-stems (the uncertainty of place and time of the collisions) at 2.218-9 is also emphatic of the crucial idea of random movement.

It is worth suggesting, in my view, that Lucretius sometimes uses repetition as reassertion when conclusive proof is not to be had, or when evidence cannot easily be supplied. The rhetorician of course has to calculate what the audience is more or less likely to accept.

A third example both of amplification as well as of the connection by repetition of two interdependent arguments is seen in the following passages. The first passage below occurs where Lucretius follows his assertion that there are two essential substances, body and void, with the statement that the *corpora* are sometimes the *primordia rerum*, sometimes the union of the *primordia* (1.483-4). He goes on to state that the *primordia* are indestructible, even if it seems difficult to believe (1.485-8):

> Corpora sunt porro partim primordia rerum,
> partim concilio quae constant principiorum.
> sed quae sunt rerum primordia nulla potest vis
> stinguere; nam solido vincunt ea corpore demum.
> etsi difficile esse videtur credere quicquam
> in rebus solido reperiri corpore posse. (1.483-8)

[44] See Kelly (2008), 169 for things not verbal as correspondence or allusion.

Possible reasons for not believing in the indestructible nature of the *primordia rerum* continue at 1.489-97. There are numerous verbal connections between the explanation of this indestructability (1.503-634) and the earlier statement of this fact at 1.485-6.[45] There are also connections to verses which explore reasons for *not* believing in the theory (1.489-97).

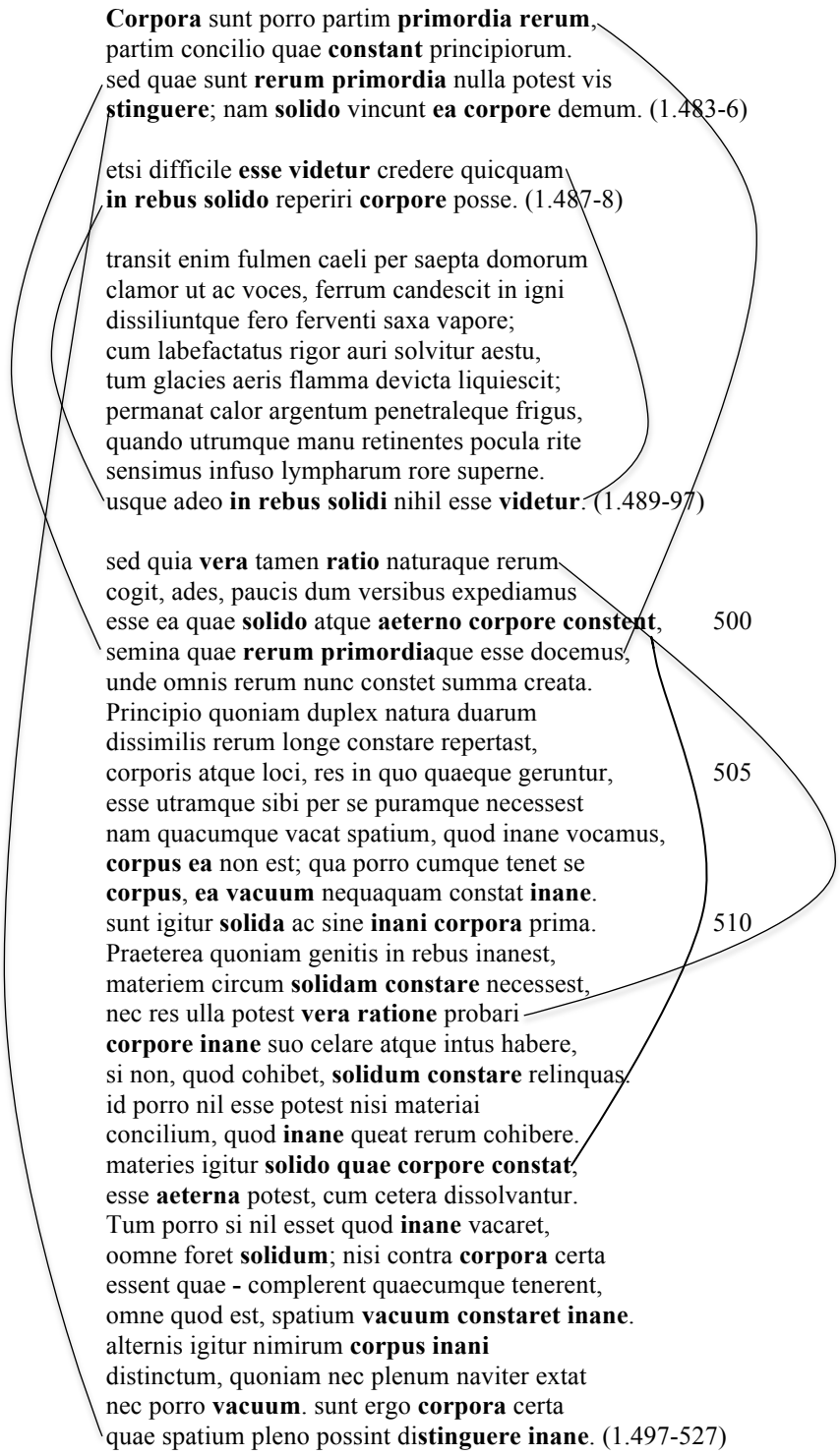
First, the statement itself, that *nulla vis* can 'extinguish', *stinguere*, the *rerum primordia* (1.485-6), is connected through the verb *stinguere* to one of the arguments in favour of the theory.[46] Where *stinguere* (together with *posse*) is used at 1.485-6 to mean that nothing can 'extinguish' the *rerum primordia*, the compound *di-stinguere* is employed at 1.526-7 (again with *posse*), to argue that the *corpora certa* differentiate empty space from full space. In spite of the obvious discrepancy in meaning which emerges from the same verb-stem, the connection between the two is clear and inescapable.[47] This manner of repetition which actually yields, and emphasises, different meanings may compare in some sense to the concept of *oppositio in imitando*.[48] The earlier notion of the indestructability of the *primordia* is connected with the subsequent idea of the two essential substances of matter and void. But what the repetition also achieves in addition to this connection is that while Lucretius claims that *corpora certa* can distinguish empty space from full, through the repetition and recollection of the earlier passage about extinction of *corpora*, he simultaneously, implicitly restates the idea that *rerum primordia* cannot be extinguished. These intratextual links can be seen in bold below:

[45] Cf. 3.1.3.
[46] Bailey (1947), on 1.486 suggests that in using *stinguere* Lucretus may be imitating Cic. *Arat. Progn.* 133: *stinguuntur radii*.
[47] For a similar type of plays-on-words, see Snyder (1980), p.109-13: here she discusses 'double-entendre involving use of the same word twice'. Arguably this is not precisely the same word, but the example I discuss is clearly a very similar technique.
[48] For which see Thomas (1999), 127.

> **Corpora** sunt porro partim primordia rerum,
> partim concilio quae constant principiorum.
> sed quae sunt rerum primordia nulla **potest** vis
> **stinguere**; nam solido vincunt ea **corpore** demum.
> etsi difficile esse videtur credere quicquam
> in rebus solido reperiri corpore posse. (1.483-8)
>
> … sunt ergo **corpora** certa
> quae spatium pleno **possint** di**stinguere** inane. (1.526-7)

I suggest above that there is argumentative connection between the statement of the indestructibility of the *primordia* (1.485-6), a suggestion that the *primordia* are indestructible, even if it is difficult to believe (1.487-8), reasons for difficulty believing this at 1.489-502, and the detailed scientific explanation (1.503-634); this can be confirmed with a look at the passages in question.[49] The fact that there exist numerous verbal repetitions between the two passages, and that these repetitions are of vocabulary 'significant' to the argument at hand can support this idea.[50] One should keep in mind too that, as in the example directly above, in addition to building connections between statements of fact and the scientific explanation of this fact, the intratextual connections also necessarily and simultaneously emphasise the statements which have come before.[51] Below are two examples from these passages:

[49] On the argument of these lines, see Bailey (1947), *ad loc.*, and esp. 680-82. See too Bailey (1947), on 1.487, who points out the similarity of the introduction at 1.267: *ne qua forte tamen coeptes diffidere dictis*.
[50] Cf. Methodology.
[51] And on a second reading the reader could anticipate the arguments which are connected by allusion.



By stating the difficulty of believing that anything can be found which has indestructible body, *in rebus solido…corpore* (1.488), with repetition of vocabulary from the lines directly above (1.483-6 in particular: *rerum…solido…corpore*), Lucretius intertwines the statement that there are indestructible bodies with the fact

that this might be hard to believe. The fact that this assertion of difficulty of comprehending uses the same language as the statement in fact contributes to a reassertion (even if subconscious) of the argument, rather than an undermining of it. The very acknowledgement of difficulty with an argument has a rhetorical effect, too: an orator who fails to understand a listener's possible problems of comprehension would be less likely to command assent. Finally, *in rebus solidi* at 1.497 repeats the existence of solid matter from 1.488, and the identical vocabulary and word order clarify the idea and argument, convincing the reader more or less immediately that a difficulty believing this fact must be misplaced.

One might note the similarity of this to the idea, discussed above, that 'wandering far from true reason' is drawn together with disbelief in the idea that atoms 'wander' through the void. The reader's difficulty in understanding is anticipated, even presumed, and connected through repeated language to subtly reassert the statement being proved. One more feature of the small-scale repetition of significant vocabulary should be noted: it is possible that in repeating so frequently the words which, in particular, refer to atomic structure and the opposite of matter, void, Lucretius mirrors in a general sense the description of the fundamental constituents of the world, which are themselves repeated and reconfigured, with repeated fundamental vocabulary. This type of reflection of the world in the text is discussed in detail in Chapter 5.

A final illustration of repetition for amplification is taken from the passage in which Lucretius explains where the light of the moon comes from (5.705-36; in full at 5.705-50), and gives three possible theories, in accordance with Epicurus' arguments in favour of multiple explanations.[52] Throughout the three explanations for the light of

[52] Epicur. *Epist. ad Hdt.* 79-80. Cf. Bailey (1947), 57-8. For the sources of the passage, see Bailey, on 705-50, 1437-41.

the moon, the repetitious nature of the lines is remarkable. Lucretius again repeats the vocabulary which is crucial to his explanations: *luna*, *lumen, ignis*, for example.

The reader may be especially aware here of critical concerns which I mention in the methodological section of this thesis, at pp. 20-21, as to whether this constitutes merely inevitable recurrence of items of vocabulary, as opposed to interpretable repetition. But I can direct the reader to my suggestion that if the repetitions are striking according to the criteria for identification which I outline in the methodology, then the repetitions are likely to be interpretable.[53]

The main function here is arguably simple emphasis or 'amplification' of the topic of discussion, but we see again that Lucretius also uses the repetition to draw together different arguments: the result is that the three different explanations seem to run together.[54] As for Epicurus, so it is for Lucretius: where there are multiple possible explanations for a given phenomenon, what is important is not which answer is the correct one, but that a jointly exhaustive set of rational explanations is given at all: that scientific knowledge is supplied where previously there was a gap in the reader's conception of this part of the world.

Luna potest **solis** radiis percussa *nitere*
inque dies magis id **lumen convertere** nobis
ad **speciem**, quantum **solis** secedit ab orbi,
donique eum contra pleno bene **lumine** *fulsit*
atque oriens obitus eius super edita vidit;
inde minutatim retro quasi condere **lumen**
debet item, quanto propius iam **solis** ad **ignem**
labitur ex alia signorum parte per orbem;
ut faciunt, **lunam** qui fingunt esse pilai
consimilem cursusque viam sub **sole** tenere.
est etiam quare proprio cum **lumine** possit
volvier et **varias** splendoris reddere **formas**;
corpus enim licet esse aliud, quod fertur et una
labitur omnimodis occursans officiensque,
nec potis est cerni, quia cassum **lumine** fertur,
versarique potest, **globus** ut, si forte, **pilai**
dimidia ex parti *candenti* **lumine** tinctus,
versandoque globum variantis edere **formas**,

[53] For more detail, see above, pp. 19-20.
[54] Cf. above, 1.1.1 for the perhaps similar effect of different parts of narrative being drawn together by phrase-repetition in Homer.

donique eam partem, quaecumque est **ignibus** aucta,
ad **speciem vertit** nobis oculosque patentis;
inde minutatim retro contorquet et aufert
luciferam partem *glomeraminis* atque **pilai**,
ut Babylonica Chaldaeum doctrina refutans
astrologorum artem contra convincere tendit,
proinde quasi ***id fieri nequeat*** quod pugnat uterque
aut minus hoc illo sit cur amplectier ausis.
Denique cur ***nequeat*** semper nova **luna creari**
ordine formarum **certo certisque** figuris,
inque dies privos aborisci quaeque **creata**
atque **alia illius** reparari in parte locoque,
difficilest ratione docere et vincere verbis,
ordine cum <videas> tam **certo** multa **creari**.[55] (5.705-36)

Looking closely at the final lines of the passage quoted above, we might note too the repetition of the vocabulary pertaining to certainty of time:

Denique cur ***nequeat*** semper nova luna **creari**
ordine formarum **certo certisque** figuris,
inque dies privos aborisci quaeque **creata**
atque **alia illius** reparari in parte locoque,
difficilest ratione docere et vincere verbis,
ordine cum <videas> tam **certo** multa **creari**. (5.731-6)

Here Lucretius makes an argument in favour of the possibility of new moons' being created each day, to show the different phases of the moon. His argument is based on the idea that many things are born at a fixed time, and so he simply finds it difficult to argue against the idea, given this premise. The theme of the right time and in the right place is a recurring one, and one sees verbal reiterations of the motif throughout the poem.[56] In concluding his argument, Lucretius repeats in close succession the phrase 'at a certain time'. His repetitions here are helpful to the argument, since, as I note above, Lucretius bases his implicit argument about the daily creation of a new moon upon the idea that many things in nature are created at a fixed time. Repetition of the

[55] For the numerous cross-references, here, I note the following the following inexhaustive list for the reader's convenience: for verbs pertaining to shining, *nitere* (5.705), *fulsit* (5.708), *candenti* (5.721); for *lumine* in identical word position (fifth foot of the hexameter), 5.708, 5.715, 5.719, 5.721; for various forms see 5.716, 5.722; for 'turning', see *versarique* (5.720), *versandoque* (5.722), *vertit* (5.724), and to a lesser extent *volvier* (5.716), for round shapes, see *orbi* (5.707), *globus*, 5.720, *glomeraminis* (5.726); and for *nequeat* see 5.729, 5.731.

[56] For repetition of *certo ordine*, see 2.252, 4.370, 5.679, 5.732, 5.736, 5.1183, 5.1439. For *certo tempore*, see 1.176, 1.554, 2.259, 2.293, 5.638, 5.656, 5.661, 5.667, 5.669, 5.670, 5.671, 5.672-3, 5.748, 5.749, 5.750, 5.759, and 5.823. Bailey (1947), 1440 notes that the concept of things happening in nature at certain times and in a fixed order 'takes one back to the account of dawn' at 5.656-65 and to 5.666-79.

phrase *certo tempore* will serve only to emphasise the reappearance of the (now familiar) theme:

> quo minus est mirum si **certo tempore** luna
> gignitur et **certo** deletur **tempore** rusus,
> cum fieri possint tam **certo tempore** multa. (5.748-50)[57]

We have seen more evidence, first of the vast number of verbal repetitions which occur on a small-scale within *DRN*, and second of this type of repetition's effect on the reader, and the close relationship between rhetorical technique and the strategies Lucretius is willing to employ. The same almost instinctive distaste we now hold for excessive repetition was found in ancient opinion too: despite his later encouragement of various types of repetition, the author of *Rhetorica ad Herennium* cautions against excessive repetition of the same word at 4.12.18. Lucretius evidently deviates from rhetorical 'standard' practice here.[58] But we have seen, and will see further evidence that oratorical theory allows one to forgo this distaste for the sake of persuasion.

3.2 Repetition for *expolitio*

Similarly emphatic, and with a related rhetorical, persuasive, and therefore didactic, purpose, is the repetition of precise words or phrases which is on a larger scale than the verbal reiterations discussed above. Often two such repetitions are either separated by other arguments within the text, or else restate an argument which has already been presented at an earlier stage. It is therefore different to the small-scale repetition discussed above, but comparable in that the overt function is emphasis and 'amplification'.[59] As with *amplificatio*, the predominant features of this particular repetition type are relative simplicity and emphasis. That said, one ought to bear in

[57] These two paragraphs (and also the *id fieri nequeat* of 729) hark back to nothing can be created from nothing.
[58] And my impression is that Lucretius is far more repetitious than Cicero. Further investigation of Cicero's use of repetition would be a fruitful point of comparison.
[59] See above, and *Rhet. Her.* 4.28.38.

mind that, as I write above (fn.15) in the case that a more complex 'layer' to the repetition may be revealed, this need not mean that the straightforward emphasis of the statement or thesis, whatever it may be, does not remain.[60] As we shall see, this type of repetition differs from the kind just discussed in that it consists not of duplicated 'important' vocabulary, but rather verbal repetition, usually of phrases, which may be rearranged or not an exact verbal match. One can see rhetorical theory at work here, too: in the *Rhetorica ad Herennium*, the author talks of variation of words, which is relevant here, in a process called *expolitio*: 'refining', or 'polishing':

> Expolitio est cum in eodem loco manemus et aliud atque aliud dicere videmur. Ea dupliciter fit: si aut eandem plane dicemus rem, aut de eadem re. Eandem rem dicemus non eodem modo—nam id quidem obtundere auditorem est, non rem expolire—sed commutate. Commutabimus tripliciter: verbis, pronuntiando, tractando. (4.42.54)

The author tells us that *expolitio* is where one seems to change topic but in fact restates the same thing. The repetition with variation of the principle that death does not matter to us could be considered an example of such *expolitio*. Lucretius first explicitly states that death does not matter to us at 3.830: *nil igitur mors est ad nos*; the principle is repeated at 3.845: *nil tamen est ad nos*; and at 3.867-9: *...neque hilum | differre an nullo fuerit iam tempore natus, | mortalem vitam mors cum inmortalis ademit.* The variation is clear; this is not simple duplication. And yet at each occasion Lucretius is simply repeating an identical idea. One might consider that in addition to restating a fundamental part of Epicurean philosophy, Lucretius is also rearranging his language in order to add variation, in line with this rhetorical way of thinking.[61] This example reflects precisely what the author of *Rhetorica ad Herennium* describes above.

[60] Cf. below, p. 182 and fn. 4 for where the function of emphatic repetitions does not 'extend' to persuade, but constitutes simple emphasis of a concept (albeit with more complex results such as 'common-grounding').
[61] For variation in repeating, see also *Rhet. Her.* 4.43.56: *Sed de eadem re cum dicemus, plurimis utemur commutationibus*. Cf. 2.218-20 and 2.221 for a very good illustration of what the author describes in verbal variation. Deutsch (1939), 89 notes that Lucretius varies his repetitions.

3.2.1 Refuting the Existence of Gods

An illustration of simple emphatic repetition of an idea—though again put in different language—which is separated by many hundred verses is the assertion, found twice in *DRN*, that centaurs never existed.[62] This example is slightly more complex than the previous one: on one level the outcome here is again simple emphasis. But on another level, the outcome is that the reader will apply a lesson learned earlier in the poem to an argument found at a later stage.[63] The simple emphasis of one idea is crucial to the 'higher' function of the internal allusion, however. Let us look at the two passages:

> nam certe ex vivo Centauri non fit imago,
> nulla fuit quoniam talis natura animalis.
> verum ubi equi atque hominis casu convenit imago,
> haerescit facile extemplo, quod diximus ante,
> propter subtilem naturam et tenvia texta.
> cetera de genere hoc eadem ratione creantur
> (4.739-44)
>
> Sed neque Centauri fuerunt, nec tempore in ullo
> esse queunt duplici natura et corpore bino
> ....
> (5.878-9)

Little explanation of the simpler function is necessary here: Lucretius repeats the idea that centaurs never existed, and the reader will be, if not convinced of the fact, convinced at least that Lucretius is certain that these creatures did not exist at any time. The higher function may be brought out when we examine the argumentative context of each statement. In Book 4, Lucretius uses the example of a centaur to assert

[62] Lucretius uses the example of the centaur as a paradigm for a creature which does not exist, to illustrate the way in which people can see in their mind creatures which do not exist. The *simulacra* which are finer than *simulacra* emitted from existent beings can combine with other *simulacra* of other things or beings (so a centaur-image is formed from the combination of horse-*simulacra* with human-*simulacra*). Such *simulacra* need not therefore be emitted from an actual, living creature. For the passage in full see 4.722-48. The passage argues for more than one thing simultaneously, therefore: first that centaurs did not exist, and secondly and more generally that one can see something in one's mind which need not exist. For further (brief) discussion of the centaur example, see below, 4.2.1 and 4.2.2.3.

[63] This complexity of function is representative of much repetition in Lucretius: it is often the case that a repetition is difficult to categorise, given that it could fit in multiple locations (on which see too above, Methodology). But it seems that this is an unavoidable result of a study of a technique so widely used.

the capability of the mind of creating images and seeming to see things which do not exist.[64] The idea that the centaur cannot exist is drilled in in Book 5 when the argument is repeated in a 'polished' form. In arriving later at the explanation of the origin of religion (5.1161-82), in which Lucretius describes the images men saw, both awake and asleep, of supersize humans which they took to be deities, one cannot help but recall this passage about the mind's false images in Book 4. The description of the nature of thoughts and dreams as being easily misleading is inextricable from, and applicable to, the account of man's dreaming up images of gods and attaching to these 'creatures' all sorts of qualities which, in the end, make them divine.[65] And the reader now knows that centaurs similarly may be dreamed up but do not exist. One might see, then, a network of repetitions of ideas, in which arguments against the existence of gods (or at any rate of gods with all of those particular divine qualities)[66] are bound up with, and in fact dependent upon, earlier statements of the fallibility of the human imagination.[67] To be clear, here, I use repetition to advance an argument that Lucretius does not believe in the gods as existent and immortal beings, but rather exposes them as constructs of the human mind, by using internal allusion to passages which explain precisely how one sees in one's mind something which does not, in fact, exist in actuality. The paradigm of the non-existent centaur is applicable to the gods people dream-up, and this is made even clearer by Lucretius through his

[64] See fn. 62 for a more detailed explanation of Lucretius' argument here.
[65] See 5.1161-82.
[66] These qualities are: *mirando corporis auctu* (5.1171), *sensus* (5.1172), outstanding beauty and great strength (5.1174), *aeterna vita* (5.1175), and pre-eminance in happiness (5.1179).
[67] While I do not engage here with the debate about Epicurus' theological idealism or realism, I advance here an argument in favour of the idea that Lucretius does not believe that the gods exist as anything other than *simulacra* which do not come from any actual, existent being, as will become clear. The first proponent of the idealist interpretation of Epicurean theology seems to have been Lange (1866); a later advocate was Scott (1883); Konstan (2011), 53 tells us that the notion was revived in the twentieth century by Bollack (1975). More recently idealism has been defended by Long and Sedley (1987a) and (1987b); Obbink (1989), (1996), (2002); Purinton (2001) (with variations from Sedley's version of idealism, for the details of which see Sedley (2011), 46 n.46); O' Keefe (2010); and Sedley (2011). *Contra* see: Mansfeld (1993); Giannantoni (1996); Schwiebe (2003); Babut (2005); Wigodsky (2004); and most recently Konstan (2011). I do not think that Epicurus' realism or idealism necessarily has a bearing on Lucretius' professions on the subject, and therefore do not suggest by my arguments about Lucretius' theological arguments that they were necessarily in line with Epicurus' own.

repetition and emphasis (even with varied language) of the non-existence of centaurs. So that when the reader arrives at the description of the dreams of the gods, she knows how dreams and *simulacra* function (4.722-48), she knows that creatures such as centaurs, though they may be dreamed-of, do not exist. And she will know the falsity of early humans' transferral of divine existence, appearance, or deeds in dreams, to reality (5.1169-82).

Let us briefly examine the context of the duplicated refutation of the centaur in Book 5. Here the centaur is used as an illustration of the fact that creatures of double nature: *duplici natura et corpore bino* cannot exist. The passage in Book 5 comes as part of the very broad argument seen throughout the book that the gods were not responsible for the world's development (including animal and human evolution). First of all, we have seen that this passage occurs before the description of the origins of religion, and the account of how mankind first saw, and began to believe in, the gods (in full at 5.1161-82). We have seen too the connection between this passage and the recapitulation of the statement asserting the non-existence of centaurs in Books 4 and 5.

This passage at 5.878-9, seen in full at 5.878-924, also has connections to another part of *DRN* with a different, but linked, argument in Book 3: that the spirit and body grow together: in Book 5 Lucretius describes in detail how the horse's rate of growth is not in line with man's, and so centaurs could not grow, and therefore cannot exist (especially at 5.883-9). This specific argument might cause the reader to recall the Book 3 description of the mind's growth: *...pariter cum corpore et una | crescere... pariterque senescere mentem* (3.445-6).[68] These lines occur as part of an argument that the mind is born with the body (3.445-8).

[68] Yet another example where Mansfeld's (1995) 'insight by hindsight' concept is helpful.

One might also think of 3.765-8, which propose a related, but apparently distinct idea, that the soul cannot pass into the body, even within species:

> sin animas hominum dicent in corpora semper
> ire humana, tamen quaeram cur e sapienti
> stulta queat fieri, nec prudens sit puer ullus,
> [si non, certa suo quia semine seminioque][69]
> *nec tam doctus equae pullus quam fortis equi vis*.
> scilicet in tenero tenerascere corpore mentem
> confugient. quod si iam fit, fateare necessest
> mortalem esse animam, quoniam mutata per artus
> tanto opere amittit vitam sensumque priorem. (3.760-8)

This idea is closely connected to the idea stated at 3.445-8 that the mind is born with the body. One might note especially, in addition to other verbal connections between the two Book 3 passages, the use of –scere verbs (*crescere*, *senescere*, *tenerascere*) indicating growth or change. Let us compare 3.760-8 with the earlier passage:

> Praeterea gigni pariter cum corpore et una
> **crescere** sentimus pariterque **senescere** mentem.
> nam vel ut infirmo **pueri teneroque** vagantur
> corpore, sic animi sequitur sententia **tenuis**. (3.445-8)

> sin animas hominum dicent in corpora semper
> ire humana, tamen quaeram cur e sapienti
> stulta queat fieri, nec prudens sit **puer** ullus,
> [si non, certa suo quia semine seminioque]
> nec tam doctus equae pullus quam fortis equi vis.
> scilicet in **tenero tenerascere** corpore mentem
> confugient. quod si iam fit, fateare necessest
> mortalem esse animam, quoniam mutata per artus
> tanto opere amittit vitam sensumque priorem. (3.760-8)

3.760-8 constitutes the first argument against transmigration of a complete soul, as opposed to the notion that a soul grows *along with* the body. In this way it is connected to the arguments about rate of growth (of mind and body at 3.445-8, and of horse and man, at 5.883-9). The argumentative connection between the statement that mind and body grow together at 3.445-8, and the argument about the rate of growth of man and horse at 5.883-9, would mean that at 3.760-8, which is also connected to the idea of one thing growing in line with another, the example of horse and man is

[69] 3.764 = 746 deleted by Lachmann (1850).

striking. It does not seem a coincidence, then, that the example of horse and man were chosen as illustration of the concept that a soul does not pass from one being into another, in a complete state. Moreover, the mention of the boy's progress and a foal's progress (3.764) clearly anticipates the idea of horse and man not growing simultaneously at 5.883-9, or would be recalled on encountering the Book 5 argument.[70] These connections inevitably stress further the notion that centaurs are not able to exist. In turn, this refutation is connected as I have shown to the existence of the gods. Here we are able to see the intricate network of intratextual connection and internal allusion, which is so typical of Lucretius' repetition, but so far has not been stressed.

The refutations of the existence of centaurs are not formed of identical language, as we have seen. The author of the *Rhetorica ad Herennium* expressly tells us that in using *expolitio* as a persuasive technique, one repeats not words, but ideas: *expolitio est cum in eodem loco manemus et aliud atque aliud dicere videmur* (4.42.54) ('Polishing is when one dwells on the same topic but seems to say something new'). At first sight, it may seem that this is precisely what is happening here, and indeed we do find this elsewhere in *DRN*, and we have already discussed one example where the technique is clearly being used.[71] In this case, however, it is more complicated. Here Lucretius is certainly dwelling on the same topic while seeming to say something new: despite the differing contexts of the centaur examples, Lucretius repeats an assertion against their existence, which all in the end contributes to a unified statement about what can and cannot exist, and how far *simulacra* can come from existent beings. But Lucretius also *seems* to dwell on the same topic, and yet *is*

[70] For the concept of re-reading or *palingenesis* see Schiesaro (1994); cf. Mansfeld (1995).
[71] One might also cite 1.150, 1.155-6, 1.265-6, 1.543-4, and 2.287 as examples of varied repetition of the statement that nothing comes from nothing. Cf. Wills (1996), 210.

actually saying something new,[72] as I have explained in detail: on one level, each instance of the centaur argument has a different overall point. In Book 4 the point is about the non-existence of things which might appear to exist—be they centaurs or even gods; in Book 5 the point is that creatures evolve naturally, and one might claim that here the major point is about the non-involvement of the gods in the evolution of animals.

If Lucretius is using rhetorical theory to aid his cause, he also chooses to innovate to an extent his own implementation of the technique. Examples such as this defend the notion that repetition as a persuasive strategy in Lucretius cannot consist solely of verbal repetition. We might gain from the centaur passages that the two major arguments in *DRN*, that we need not fear the gods, nor death, tend to pervade in some sense much more of the poem than we might first realise. It can certainly be subtle in effect.[73] This technique, of spreading a main cause throughout a speech, is also something which a budding orator is advised to make use of in the *Rhetorica ad Herennium*:

> Commoratio est cum in loco firmissimo quo tota causa continetur manetur diutius et eodem saepius reditur. Hac uti maxime convenit, et id est oratoris boni maxime proprium, non enim datur auditori potestas animum de re firmissima demovendi. Huic exemplum satis idoneum subici non potuit, propterea quod **hic locus non est a tota causa separatus sicuti membrum aliquod, sed tamquam sanguis perfusus est per totum corpus orationis.**

I have shown that Lucretius employs both the *expolitio* discussed in rhetorical theory, as well as his own more complex, and in-part reverse, version of the strategy. In traditional 'polishing', the orator would say the same thing in a different way and thus seem to say something new, while in fact simply emphasising the same point each time. This strategy is close in outcome to amplification repetition. In Lucretius'

[72] It might be suggested that this is used as a way of slipping tenets past the reader without having to argue for them: a possible area for further study. Certainly I think that Lucretius in general is not averse to smuggling arguments past the reader (e.g. see Introduction, where an anti-religious argument is slipped into theses about the variety of atoms).
[73] Thury (1987), 274-6 for *DRN* as subtle and comparable to *simulacra*. See too below, p. 239, fn. 6.

version which is also in evidence in *DRN*, he certainly does this. But he also seems to say the *same thing*, and yet actually says something different. This he achieves through subtle reference to and dependence on earlier arguments through verbal and argumentative connections. We have seen too, then, that arguments in Lucretius are bound up with each other to create a complex network; repetitions and intratextual connections reflect this complexity.

3.3 Rejection of Opponents

There has been extensive study of Lucretius' opponents. The question, 'who were Lucretius' opponents', as Kleve tells us, is the major problem of Lucretian polemics.[74] A related, but equally intriguing question might be, 'why does Lucretius so rarely name his opponents?'[75] The connection between Lucretius' polemical approach towards his philosophical opponents and his use of repetition when refuting their theories or worldviews may help us in some way in considering these questions.

In reading various of Lucretius' arguments, one often gains the impression (even when not explicitly told) that he is fighting an opposing view, sometimes several.[76] This apparently aggressive approach towards other views may in part have its origins in rhetorical theory: an orator-in-training is advised as to how to help the audience feel contempt for the opposition: *ab adversariorum persona benivolentia captabitur si*

[74] Kleve (1977), 39. One might think too of Philodemus, who does name his opponents, though rarely. See Janko (2000), 129-34; Obbink (1996), 82.
[75] Bailey (1947) proposes that the opponents attacked in *DRN* come from throughout the history of philosophy up to Lucretius' own time, but that the Stoics are the major target; Furley (1966), 13-33 argues against this, suggesting that Lucretian polemics predominantly reflect Epicurean polemics. But *contra* see Schmidt (1975), who reverts more to Bailey's view, that more often than not, the Stoics may be seen to be the target.
[76] e.g. 3.978-1002. On not naming opponents in Lucretius, see Classen (1968), 90: 'an argumentative section often begins with a refutation of the opposite view (e.g. 4.823-57; 5.110-234), in a manner very much reminiscent of oratorical practice…'. For a related strategy, see Classen (1968), 86-7 for some examples of imagined opponents in Lucretius.

eos in odium, in invidiam, in contemptionem adducemus. (*Rhet. Her.* 1.5.8).[77] And again, one notes the strategy frequently in Cicero, the master of invective.[78] Where Lucretius asserts the foolishness or stupidity of an opposing view of some or other issue, one could easily see this as bringing the opponent into *contemptio*.[79] One might note a difference in that in didactic the opponent is often more general, while in oratory, the opponent is of course specific.

An apt example is the repetition of *desiperest* in discussion of alternative theories. The phrase *dicere...desiperest* occurs four times in *DRN*: at 3.359-61,[80] 3.800-2, 5.156-65, and 5.1041-3.[81] The construction is first found at 3.359-69 where Lucretius refutes the 'doorway' theory of ocular vision. This is an illustration of the broader point of the body's possessing *sensus* (3.350-8), in turn part of the broader argument that the body and soul are united (3.323-69), and which is itself a part of the general assertion that the soul will die when the body dies (3.434-44). Later at 3.800-2 Lucretius argues that the soul is mortal, and claims that an immortal soul could not be part of something mortal (the human body). The third instance of *dicere...desiperest* is where Lucretius overtly rejects a fear of blasphemy (5.156-65), while proposing the foolishness of believing the world was divinely created and itself is immortal. The

[77] There may be more to say here about the eulogistic proems in Lucretius: in *Rhet. Her.* 1.5.8 the author says too: *Ab rebus ipsis benivolum efficiemus auditorem si nostram causam laudando extollemus, adversariorum per contemptionem deprimemus.*

[78] See esp. the beginning of *Catil.* 1, which immediately reduces Catiline to joke-material (making it difficult for the audience to wish to align themselves with anyone but Cicero) in his mocking imitation of the alleged *quo usque* of Catiline's own speeches: *quo usque, Catilina, abutere patientia nostra*? With *nostra* Cicero unites himself with the audience immediately to view Catiline as their shared enemy. Cf. *S. Rosc*. 42 where Cicero claims that the weakness of the prosecution makes his job more difficult. One sees too a kind of 'didactic coercion' (Mitsis (1993)) in the opening of Cic. *S. Rosc.*: at 1-2 Cicero expounds the virtues of the men who would position themselves with his client.

[79] See too Kleve (1977), esp. 54-7 for specific instances of 'polemics' in Lucretius. This list of polemic in *DRN* may lead us to wonder whether Lucretius uses the same technique of rejection and bringing the opponent into *contemptio*, even where there is no specific opponent, or rather, not only where there *is* an opponent, but also where the opponent *is the misconception itself*. Kleve's criterion, 41, for considering something in Lucretius to be polemical is that 'Only if Lucretius expressly states that there exists a rival view and criticizes it…'. See 40-1 for the full definition.

[80] Most editors print the *difficilest* of the manuscripts here, but I believe Lambinus' 1565 conjecture of *desiperest* in place of *difficilest* to be correct (see Buglass (2014), 413-17); cf. Kenney (2014[2]). The conjecture is listed at the end of Lambinus' 1565 pocket edition of Lucretius.

[81] According to Kleve (1977), 54-7, while 3.359-61, 5.156-65, and 5.1041-3 qualify as polemic, 3.800-2 does not—though it seems to me to fit Kleve's criteria for polemic.

fourth and final appearance is where the *nomothetes* theory of language is rejected in favour of a natural linguistic development (5.1041-3).[82] Each time the construction is used, Lucretius derides a view not in accordance with Epicurean physics or philosophy; this is apparently in line with Kleve's qualifying criteria for polemic.[83] Lucretius does not say merely that the opposing theory is incorrect, but even that it is foolish to believe in such a theory.[84]

Mitsis' instructive article about 'didactic coercion' is helpful here. He argues that Lucretius in a way tricks the reader into aligning herself with the 'correct' view, so that the reader is not seen (or rather does not see herself) as being on the foolish, childish, side of the argument.[85] In focusing on the representation of children in *DRN* as helpless and full of error, Mitsis suggests that Memmius, the addressee, is actually characterised as a helpless and rather useless *nepios*. Through this characterisation, the reader prefers to place herself on the other side, thereby aligning himself with Lucretius.

I should like to supplement Mitsis' view of didactic coercion, which is focused on the representation of children in the poem, and suggest that the technique might be extended to apply to all situations where there is a choice between the 'wrong' view (that is, that of an opponent) and 'right' view (that of Lucretius). This reading has the advantage of dealing with the extended passages in *DRN* where the addressee is non-specific.[86] It might certainly be considered a form, or rather an extension, of what the author of the *Rhetorica* describes, to convince the reader that the opposite view is to be despised for its error (although error or foolishness is not listed in the faults at

[82] On the passage, see Reinhardt (2008a), 136-8.
[83] Kleve (1977), 40-1.
[84] *Dicere* appears too twice elsewhere in *DRN*, with vocabulary which similarly implies madness or foolishness: *dicere porro...perdelirum esse videtur* (1.690-2), and *aequa videtur enim dementia dicere utrumque* (1.704) (Buglass (2014), 416).
[85] Mitsis (1993), *passim* but esp. 124-7.
[86] This is not dissmiliar to Kleve's (1977) take on the problem of the targets of polemic in Lucretius.

Rhet. Her. 1.5.8, this could of course be a cause for feeling *contemptio*, which is listed, as I mention above). Lucretius uses the strategy in the *Rhetorica*, but goes far beyond it in using this contempt for his own 'didactic coercion', and using repetition moreover for emphasis.

The reiteration throughout *DRN* of the idea of 'straying' far from true reasoning renders it similarly unappealing to align oneself with a view which opposes Lucretius'. Variations on a theme of *vera ratio* are seen 20 times in *DRN*.[87] Nine of these instances of *vera ratio* are used in a context where the reader is 'driven' or 'straying', 'far from true reasoning' (see too below, Section 4.1.3.1). This example might be considered 'polishing', in that none of the instances of the idea of the reader's straying far from *vera ratio* are repeated verbatim, and yet the same idea is still the point of discussion. But it is also another illustration of Lucretius' 'didactic coercion' of the reader. The reader is, in a sense, forced to make a decision as to whether she considers herself to be wandering far from *vera ratio*, or on the contrary to be using her rationality. The one who is straying from reasoning is thus rendered in a sense an opponent. This is complicated on further consideration by the fact that this opponent in fact is imaginary: the point of the strategy is that the reader will *not* disagree with Lucretius' reasoning so as not to be considered (or so as not to consider herself) as being without rationality. Nevertheless, Lucretius is using repetition to emphasise the importance of using *vera ratio*, he is using varied repetition on a theme to drive home the idea behind the verbal connections, and he is rendering anyone who would disagree with that idea an opponent worthy of contempt.

[87] Repetitions on a theme of *vera ratio*: 1.51, 1.498, 1.513, 1.623, 1.637, 1.880, 2.82, 2.176, 2.229, 2.645, 2.1023, 3.523, 4.446, 4.485, 5.23, 5.406, 5.1117, 6.80, 6.767, 6.853; where the addressee strays or is far (or strays far) from *vera ratio*: 1.637, 1.880, 2.176, 2.229, 2.645, 5.23, 5.406, 6.767, 6.853, exception: where *vera ratio* is the one which should drive a life of misery far from us: 6.80; where the addressee is encouraged to apply *vera ratio*: 1.51, 1.498, 2.1023, 5.1117, 1.513, 1.623, 3.523; where *vera ratio* is used as part of a statement about the nature of truth: 4.446, 4.485. For a similar statement, as a rejection of something which is not the truth, see 1.758.

Lucretius uses repeated phrases which ultimately generate contempt for whoever the opponent may be. The fact that these repeated phrases occur in more than one context enforces the generalisation of the polemical approach: if multiple opponents are identified as straying far from *vera ratio*, or as being foolish (*desipere*), then the reader is equipped to apply the approach of battling with the false, and holding onto the truth, to situations which might occur *ad hoc* in her life.[88] This generalised approach is entirely in line with the anonymity of most of Lucretius' polemical passages. A final suggestion may be that non-naming of opponents lends a didactic poem a timelessness and universality it might not otherwise possess.

3.4 Breaking Down Walls

Genette, describing *metalepsis*, writes that 'any intrusion by the extradiegetic narrator or narratee into the diegetic universe… or the inverse, produces an effect of strangeness that is either comical… or fantastic'.[89] The term was originally used in rhetorical theory to describe something close to metaphor or metonymy; it was later applied by Genette to narrative texts. Since then it has been used by many others to describe a specific phenomenon explored in narratological scholarship: the breaking of the boundary between narrative worlds.[90] I believe that this more modern, narratological understanding of the concept of *metalepsis* can in turn be applied to a rhetorical and didactic work such as Lucretius' *DRN*. Lucretius certainly uses a form of *metalepsis* in his repeated addresses to the reader, though I would accordingly adapt Genette's 1972 definition and remove the requirement for comic or fantastic

[88] I allude here to Lucr. 2.1042-3: *iudicio perpende, et, si tibi vera videntur, | dede manus, aut, si falsum est, accingere contra*.
[89] Genette, (1972), 234-5, trans. Lewin (1980). For a thoroughly interesting and helpful discussion on the subject, I am grateful to Karen Caines.
[90] For other, more recent scholarship on the concept see, e.g. de Jong (2009), 87-116; and Whitmarsh (2013).

effect. The precise effect of Lucretius' version of *metalepsis* will be explored in the next pages.

This common form of repetition in Lucretius consists of what I term 'place-markers' or addresses to his reader. Certainly these addresses to the reader 'intrude' into the universe which Lucretius is creating in *DRN*. There are other, arguably more simple, functions behind this technique. One also sees in Cicero's forensic speeches numerous and repeated addresses to his audience, or place-markers.[91] Examples include the frequent *quae cum ita sint*[92] and *quid enim est*.[93] Lucretius' repeated addresses to the reader or place-markers may well be intended to replicate this rhetorical feature. Place-markers in Lucretius are necessarily addresses to the reader.[94] These phrases are repeated in part to gain or maintain the reader's attention. As part of this function, the phrases serve as dividers of sorts, to break up the text, and so preserve the reader's interest: the phrase *quod superest*, for example, which may be translated variously as something like 'as for the rest', or 'for what remains', implies that Lucretius is nearing the end of some sort of section or argument.[95] Indeed, Volk points out the structural role of such 'repeated formulas'.[96] It is found fairly uniformly throughout the text, though there is a slightly higher propensity towards the phrase in the fifth and sixth books.

[91] Volk (2002), 76 explains that phrases such as *nonne vides*, etc. give 'structure' to the poem, as well as lend it an 'archaic feel'.
[92] Seen e.g. in Cic. *Catil.*, *Mur.*, *S. Rosc.*, *Ver.*, *Man.*, *Clu.*, *Rab. Perd.*, *Arch.*
[93] Seen in e.g. Cic. *Rab. Perd.*, *Balb.*, *Phil.*, *et al.*.
[94] Bailey (1947), 145 notes these repeated introductory phrases as a type of repetition in his prolegomena.
[95] We find the phrase 22 times in *DRN*: 1.50, 1.921, 2.39, 2.183, 2.491, 2.546, 3.350, 3.905, 4.195, 4.768, 4.1283, 5.64, 5.91, 5.206, 5.261, 5.772, 5.1241, 6.219, 6.423, 6.906, and 6.1000. Other repeated phrases which I place in the same group are: *nunc age* (seen 15 times at 1.265, 1.921, 1.953, 2.62, 2.333, 2.730, 2.417, 4.110, 4.176, 4.269, 4.673, 4.722, 6.495, 6.535, and 6.738), *quare etiam atque etiam* (seen 13 times at 1.295, 1.1049, 2.243, 2.377, 2.1064, 3.228, 3.576, 3.686, 4.216, 4.289, 4.856, 4.1207, and 5.821), and *quoniam docui* (seen 7 times, at 1.265, 1.951, 2.478, 2.522, 3.31, 4.45, 6.43). These phrases may be seen as performing either or both of the functions I suggest. Cf. Schiesaro (1987), 46-7 for the 'formula' *iam ostendimus* in Lucretius, Cicero, and *Rhet. Her.*.
[96] See above, fn. 91.

David Konstan suggests to me that in a didactic text, a refrain may be indicative of an acute awareness of the passage of time as the addressee reads. Could this reflect a vague emulation of a legal argument? After all, Lucretius is in a constant bid to persuade his audience of the accuracy of a hypothesis which is often in the end debatable. The phrase *ut supra dixi* is used frequently by Cicero, and one can see a connection between this phrase, which refers to something stated earlier in a speech, and Lucretius' phrases, *quae diximus* (seen in both Cicero and Lucretius, though only once in Lucretius), *ut diximus* (*ante*) (seen in both Cicero and Lucretius), *ut*(*i*) *docui*, and *ostendimus ante*.[97] These phrases act as a sort of footnote to an earlier argument. They not only draw attention to the recurring importance of previous arguments in *DRN*, but also say something about, and make the reader all the more aware of, the cumulative and interconnected nature of arguments in *DRN*: that arguments are constantly built upon to make a case for something related to, or at times, more complex than, an idea already discussed.[98]

Another interpretation which takes into account David Konstan's idea of awareness of time, and the concept of *metalepsis*, might lead us to suppose that with these repeated addresses (which might be considered a type of refrain), Lucretius is in part attempting to give the reader this same awareness of time: to break the reader out of the fictive world which is being created, and to come into her own world again briefly. A structuring device like *quod superest* might easily draw attention to the text *qua* creation by an author. This momentary slip between worlds would allow the

[97] *quae diximus* is seen in Lucr. 4.643; Cic. *Fin.* 5.60.6, and *Tim.* 7.9. *ut diximus* is seen in Cic. *Inv.* 1.40.10 and *Sen.* 48.3, while *ut diximus* is seen in Lucr. 2.509, and *ut diximus ante* at Lucr. 3.538, 4.73, and 4.882. *uti docui* is in Lucr. at 1.539, 2.339, 2.1050, 3.522, and 5.364. *ut docui* is seen in Lucr. at 3.458 and 3.500. *ostendimus ante* occurs eight times in Lucretius, seven instances of which occur as part of a full verse repetition: three times in the verse: *id quod iam supera tibi paulo ostendimus ante* (1.429, 1.531, 4.672); with *paulo* twice more in the verse: *multimodis varians, ut paulo ostendimus ante* at 6.989, 6.997; and twice in the verse: *corpora sunt, quorum naturam ostendimus ante* at 3.810, 5.355. It is seen too at 6.774: *res ad vitai rationem ostendimus ante*.

[98] In such a text, Mansfeld's (1995) idea of 'insight by hindsight' is surely realistic and helpful. See too p. 50, fn. 75 above, and p. 168, fn. 68.

reader to apply all that she reads in Lucretius' literary, textual world, to her own world. This is, after all, Lucretius' whole objective for the reader. The transition out of the world of *DRN* into the reader's world may bridge the gap between the two, and in doing so, unite the textual world with the actual world: the text may be part of the world of the reader, and the reader may enter back into the world of the text, ready again to apply to her world that which she finds in the text.[99]

This idea will lead us eventually to the final chapter, which looks at how Lucretius' repetition helps not only to describe but even to reflect the image of the world he attempts to create for the reader. But first we turn to Lucretius' didactic repetition, which is remarkably closely linked to the rhetorical and persuasive repetitions we have explored in this chapter. In the next chapter the markedly interconnected nature of rhetoric and didactic for Lucretius will be brought out more strongly.

3.5 Conclusion

In this chapter I aimed to explore the oratorical background to particular types of Lucretius' repetition. Given the evident understanding within oratorical theory of ways in which repetition can aid the speaker in speaking in a persuasive and possibly memorable manner, I hope to have made a case that this same value of repetition was known to Lucretius, and that this is likely in part a result of awareness of rhetorical works if not oratorical theory and instruction. Following on from this, the difficulty of arguing that repetition (even merely of items of vocabulary) is the result of poetic

[99] On the relation between language and world, and language's suitability for expressing and explaining the world, see Kennedy (2007), 382-3. Kennedy wants to (395) explain how: 'In seeking to offer a text of the world, the world *as* text, one may find one's self ever *within* the world of the text—trying to make sense of it *intra*textually, and wondering, perhaps, whether this 'text', or indeed *any* text, is susceptible of a complete and final reading.'

clumsiness, ‘poverty’ of the Latin language for describing Greek philosophy, or the incompleteness of the poem, should be more obvious. I have tried in general to elaborate how such rhetorical repetition is used to persuade the reader, both on the small scale and on a much larger and pervasive scale, that Epicurean philosophy is the only way to *vera ratio* and happiness.

4

The Didactics of Repetition

We have seen the extent to which repetition in Lucretius can serve a rhetorical purpose. I have also discussed the fact that repetition has long been considered a pointless and rather odd feature of Lucretius' poem, a sign of *DRN*'s incomplete state, or as later interpolation, and that little attention in general has been paid to the phenomenon in *DRN* as part of a didactic strategy.[1] This chapter concentrates on the ways in which repetition contributes to the purpose of teaching in *De Rerum Natura*. Rhetorical and didactic aims are inevitably remarkably closely connected.[2]

4.1 Emphatic Repetition

'Emphatic' repetition is outwardly identical with the repetition for *amplificatio* which I explore in the previous chapter; one might use the same examples as I used in Chapter 3 on 'rhetorical repetition', and show that these instances of repetition are also didactic. Yet in function and outcome, the two strategies are distinct.

As has been shown, Lucretius uses repetition for *amplificatio* to persuade the reader of the merits of a given rational argument. Repetition for *amplificatio*, as I explain above, consists of the repetition of particular words or concepts which are especially meaningful for the argument at hand.[3] The definition of *conduplicatio cum ratione amplificationis* which has already been quoted is as follows:

---

[1] See above, Introduction, pp. 2-14.

[2] This might be especially true in a culture and a time in which the majority instruction takes place orally, and there were no text-books as such. For the status or rarity of libraries, see Rawson (1985), 40-1. The interaction between rhetoric and didactic in texts strikes me as a fruitful area of further study, at least in Lucretius but possibly more generally, though the scope of this thesis does not allow for very deep exploration of this.

[3] See above, Section 3.1. Cf. Cacioppo and Petty (1989), 10 who find that 'more favourable attitudes are fostered by moderate repetition of strong arguments… more positive attitudes develop as the number of exposures to the same message increases'.

> Conduplicatio est **cum ratione amplificationis** aut commiserationis eiusdem **unius aut plurium verborum iteratio**, hoc modo: 'Tumultus, Gai Gracce, tumultus domesticos et intestinos conparas!'.... **Vehementer auditorem commovet** eiusdem redintegratio verbi et vulnus maius efficit in contrario causae, quasi aliquod telum saepius perveniat in eandem corporis partem. (*Rhet. Her.* 4.28.38)

But in addition to its rhetorical outcomes, this kind of repetition also serves a distinct didactic, purely emphatic, purpose. This repetition will usually be of individual and 'important' items of vocabulary.[4] It performs a function more basic than the 'amplification' repetitions I discuss in the chapter above. In a purely didactic sense the repetitions do not 'extend' to persuade the reader, since persuasion is rhetorical, but rather simply and merely emphasise a word or concept.[5] It might even be said that this simple emphasis of an idea is the primary, or fundamental, function of repetition for *amplificatio*: before Lucretius can *persuade* the reader of an idea through simple repetition, the idea must first be *emphasised* by this repetition. It is this simple, but effective, didactic outcome which I shall explore here.

Emphatic repetition can occur on a small scale, and on a large scale. On a small scale, the outcome of such repetition is invariably the 'primary' one of pure emphasis of a given idea. When examining large-scale emphatic repetitions, however, things become more complicated. While simple emphasis inevitably occurs as a result of large-scale emphatic repetition, one often finds that broader ideas are also stressed. Different arguments from different parts of the poem are drawn together (meaning that different aspects of one, broad argument might be combined to form one overall statement). The reader can even be persuaded to continue reading on, in a meta-poetical, meta-rhetorical strategy which emphasises the virtues of the poem, and the reader's need of the science therein.

[4] For which see Deutsch (1939), esp. 47.
[5] See Bailey (1947), 162 who in discussing the repetition of *certo tempore* writes that Lucretius wished to 'hammer in the conception'; see too Clay (1983), 183 who says that Lucretius duplicates important points to 'fix them indelibly in the mind of his reader'. Cf. Volk (2002), 76-8 for a helpful discussion of the function of repetition in Lucretius. For a different view, see Ingalls (1971), 227-36 .

4.1.1 Small-Scale Emphasis

The passage below supplies the third of Lucretius' four explanations for lightning in Book 6.[6] We can see immediately the repetition of 'important' vocabulary (*color*, *ignis*, *semina*, *nubes*, *ignis*, *profundere*, *flammeus/ flammae*, *ventus*, *fulgere/ fulgor*) as well as one repetition of the phrase *quae faciunt* at 6.213 and 6.217. One perceives didactic function immediately by way of the repetition of the scientific vocabulary which is plainly crucial for Lucretius' rationalistic argument at this point. It has been shown that repetition, where the argument is strong, only serves to render the receiver of such repetition as more amenable to the point in question.[7]

In this example the reader might wonder about the validity of these repeated items of vocabulary as part of a didactic strategy, as opposed to necessary argumentative recurrence of vocabulary. I refer the reader here to the methodological discussion, pp. 20-21, in which I deal with this question, and reiterate the point I make there, that if the reader picks up on the repetition, it is by no means unlikely that Lucretius too recognised it too, and yet chose to retain them rather than seek synonyms or at least some alternative language.[8]

Lucretius begins his explanation of the phenomena of thunder storms with a positive explanation of the physical basis for such happenings, before continuing to a negative argument: the denial of divine involvement with these matters (6.379-422). The repeated assertions that *ignis*, *ventus*, and *flammae* are the causes for lightning render the reader more amenable to an argument against divine action in storms.

[6] The causes for lightning Lucretius outlines are: at 6.160-3 the collision of clouds; 6.173-203 wind enclosed in the cloud is hot; 6.204-13 clouds are crushed and fire is squeezed out; and at 6.214-18 clouds grow thin and seeds of fire fall.
[7] See Cacioppo and Petty (1989), 3-12.
[8] The eminently possible option of avoiding repetitious language is shown in Chapter 1, and especially in my discussion of Apollonius. See above, Section 1.5.

Hac etiam fit uti de causa mobilis ille
devolet in terram liquidi **color** aureus **ignis**
semina quod **nubes** ipsas permulta necessust
ignis habere; etenim cum sunt umore sine ullo,
flammeus est plerumque **colos** et splendidus ollis.
quippe etenim solis de lumine multa necessest
concipere, ut merito rubeant **ignesque profundant**.
hasce igitur cum **ventus** agens contrusit in unum
compressitque locum cogens, expressa **profundunt**
semina quae faciunt flammae fulgere colores.
Fulgit item, cum rarescunt quoque **nubila** caeli;
nam cum **ventus** eas leviter diducit euntis
dissoluitque, cadant ingratis illa necessest
semina quae faciunt fulgorem; tum sine taetro
terrore et sonitu **fulgit** nulloque tumultu. (6.204-18)

In addition to this duplication of fundamental vocabulary on a small scale, one can also see a similar technique on a larger scale: the entire passage on lightning and thunder (6.96-422) includes repetitions of the words above (as well as: *lumen*, *cava*, *cumulare*, *superne*, *mons*, *frangere*, *tonitrus*, *sonitus*, *plaga*). One effect of this is that the different explanations for lightning are drawn together in some sense by remarkably similar vocabulary. This can emphasise for the addressee the physical possibility of any one of these rationalistic, scientific, explanations which supplies physics as its basis, irrespective of which explanation is the correct one. It may also stress the incorrect nature of belief in divine instigation of storms.

Another important effect can be perceived, which is that the repetition of scientific, 'important' vocabulary makes space in the reader's mind for the broader, overarching point. Recent psychological research into child-language-acquisition shows that 'When a new word and its referent are repeatedly encountered in the same context, the extraneous non-target information becomes increasingly predictable, freeing up attentional resources for detecting and processing the target.'[9] The 'target' in this case would be the idea of the true source of thunder and lightning, and the extraneous non-target information might be considered to come from the various scientific

[9] Axelsson and Horst (2014), 98.

explanations. What matters is not which scientific rationalisation of storms is correct; what matters is that the gods do not cause it.[10]

This idea of extraneous non-target information is similar to the concept described by Clark and Bernicot as 'common ground' information: '…the speaker's repetition, typically of a content word or a whole phrase, achieves two things: it acknowledges or ratifies the contribution of the other, and, in so doing, signals that a specific piece of information is now in common ground'.[11] In other words, repeated vocabulary helps Lucretius show that the science-part ought to be accepted as given: not only a pedagogical strategy, but also in some sense a rhetorical, even manipulative one. Lucretius needs the reader to accept the physics if she is to accept any broader ideology which removes the gods from her world.

'Significant' or 'important' vocabulary is again repeated in the following passage, which is part of the explanation of the origins of the world (found in full at 5.416-508).

> *inde* **mare***, inde* **aer**, *inde* **aether ignifer** ipse
> **corporibus liquidis**[12] sunt, *omnia* pura relicta,
> et **leviora aliis alia**, et **liquidissimus aether**
> atque **levissimus aerias** super *influit* **auras**,
> nec **liquidum corpus turbantibus aeris auris**
> commiscet: *sinit* haec violentis *omnia* venti
> **turbinibus**, *sinit incertis* **turbare** procellis,
> ipse suos **ignis** *certo* fert impete *labens*.
> nam modice **fluere** atque uno posse **aethera** nisu
> significat Pontos, **mare** *certo* quod *fluit* aestu,
> unum *labendi* conservans usque tenorem. (5.498-508)

Here, Lucretius discusses the qualities of the various elements of the world which, by virtue of their qualities, which are caused by the shape of their atoms, give the world

[10] For the principle of multiple reasoning, see Epicur. *Epist. ad Hdt.* 79-83; *Epist. ad Pyth.* 84-8.; Bailey (1947), 57-8.
[11] Clark and Bernicot (2008), esp. 350. Although the research is on child-language acquisition and correction by adults in everyday speech, the principle investigation is of repetition as tool for learning, and so it is applicable here. See also 368: 'Repeats play an important role… in indicating to the other precisely which information can be assumed from now on. Repeats can ground information, and do so in a way that indicates to both participants just what has been added to common ground'.
[12] It is not uncommon that Lucretius should discuss air in terms used often of water. Cf. 1.290-297; 5.273-280.

its particular makeup. In the passage below Lucretius explains how the elements 'lighter' than *terra* (*mare*, *aer*, and *aether*) were all left *pura* (5.499) and he talks about the position *aether* holds in the world. The number of repetitions in these 11 verses is remarkable.[13] Commentators have not yet observed the markedly repetitious nature of the passage, though Ernout and Robin mark several of the repetitions which I note here, and several remark on one or other repetition or anaphora here.[14]

Words (and cognates), including the elements discussed (*mare*, *aer*, *aether*) and the adjectives used to describe them are repeated usually twice, sometimes three times. The vocabulary central to the argument is stressed.

As with the passage above about lightning, we can see that a comparable strategy is seen at other points in the poem: where elements are repeated in a similar way at, say, 5.407-15,[15] the passages are connected argumentatively. This leads the reader to apply an earlier argument to a later one; giving her a cumulative learning experience (all learning is obviously based on simpler premises which can grow increasingly complicated as one learns the facts necessary to move on).[16]

The fact that this strategy pervades *DRN* shows the importance Lucretius places on repetition for learning, given the mission of his poem. It is worth noting that even this most simple didactic outcome of repetition, emphasis, has a rhetorical or psychological effect of some kind.[17]

---

[13] I ignore repetitions of pronouns and conjunctions.

[14] Lachmann (1850), *ad loc.* does not mention repetitions; nor do Leonard and Smith (1942), *ad loc.*, though they hint at the idea of the reflection of the world, which I shall explore in Chapter 5, in the rythym of 5.508. Giussani (1896-8), *ad loc.* notes: '*turbantibus e turbare'* at 5.502-4; Bailey (1947), *ad loc.* remarks on the anaphora of 5.498, *inde*, *inde*, as 'emphatic repetition marking the order of the superposition of the elements'. He notes too the opposition of *leviora* in *terrae pondus* at 5.495 and *gravis* at 5.497. Ernout and Robin (1962) note more repetition: on 5.498-504 they draw attention to 'la succession d'anaphores', on 5.501 they mention *aeris…. auras* and compare to 'vers suivant' (*aeris auris*). They note too repetition in 5.502 and the opposition of *certo* and *incertis* at 5.504.

[15] I write about this passage in detail in the next chapter, Section 5.3.4, and briefly below, pp. 197-8.

[16] This concept of accumulation of knowledge, as seen in Lucretius, is defended as I have mentioned by pscyhological and advertising research, e.g. Cacioppo and Petty (1989), 11: 'moderate repetition should enhance thoughts most when recipients have some prior knowledge about the topic…'

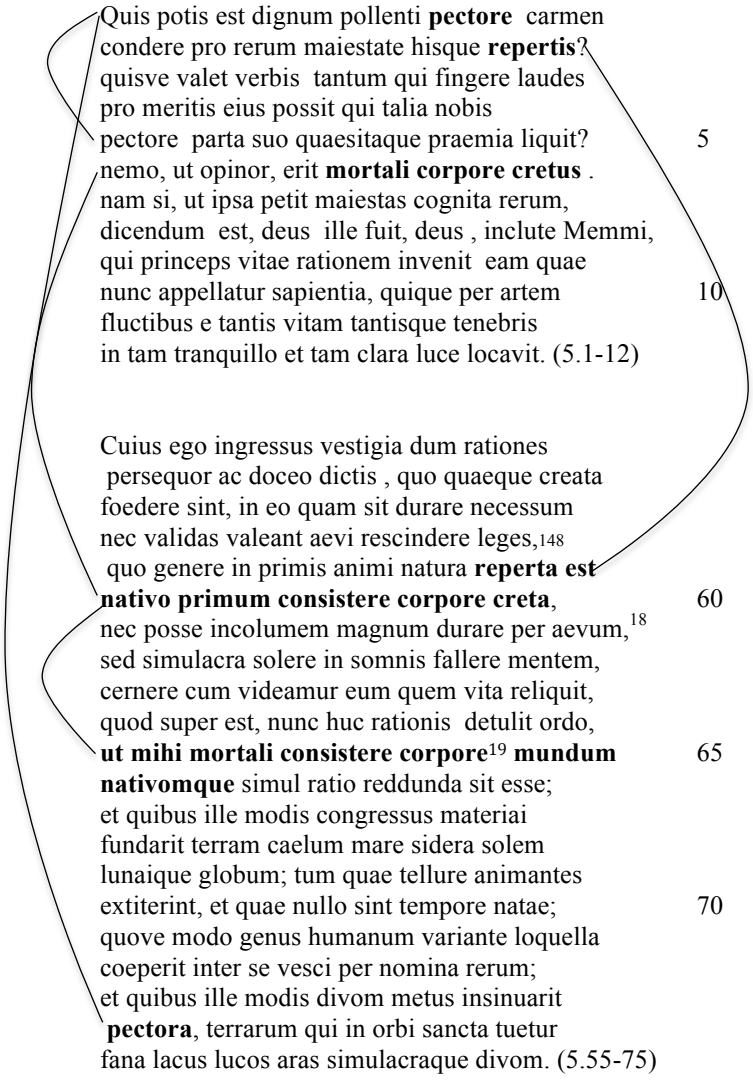
[17] I subscribe to Classen's (1968) view that even aesthetic features in Lucretius are rhetorical, given that the aim of such features is ultimately persuasion (98-9).

4.1.2 Large-Scale Emphasis

Large-scale emphatic repetition displays two distinct functions. First, this kind of repetition, like small-scale emphatic repetition, stresses a particular idea in a relatively straightforward manner, but can also encourage the reader to consider more complex ideas, since the 'straightforward' science becomes accepted or 'common ground'. The second and more complicated outcome, particular to large-scale emphatic repetition is that such repetition brings together more than one idea.

As I explain in my methodology, p. 18, my basic criterion for large-scale repetition is that it spans more than one argument; small-scale intratextuality or repetition occurs within the same small argument.

In this type of repetition the basic function of the connections is still grounded in emphasis of one (or more) scientific idea(s): in this case, the proem to Book 5, emphasis of the idea that both man and the world in which he lives are of mortal body and are subject to death. Numerous repetitions of significant vocabulary connect the proem proper (5.1-54) with the syllabus for the book (also a part of the proem, but still a distinct second half of the proem) at 5.55-90.



The repetition of *pectus*, though not necessarily significant as an isolated repetition (*pectus* is not at all rare in Lucretius), when seen in combination with other words can be considered to be meaningful, or at least add to the detection of the internal allusion.[20] The 'discoveries' of Epicurus—*repertis* at 5.2—are surely echoed in *quo genere in primis animi natura reperta est | nativo primum consistere corpore creta* (5.59-60).[21] Since verses 59-60 refer to Lucretius' teachings in his poem, this highlights the transfer of knowledge from Epicurus, to Lucretius, and potentially to the reader, showing the possibility of the reader's acquisition of the same *ataraxia* as

[18] There is also less exact connection between 5.61 (*magnum durare per aevum*) and *durare… validas…aevi…leges* at 5.56-8.
[19] For *corpus* and *consistere* cf. 5.495-496.
[20] *pectus* is found 43 times in Lucretius (and once as *tripectora* which is not counted).
[21] cf. *invenire* at 5.9.

Epicurus himself. One also sees repetition of *rationes* (5.9, 55, 64), words of telling (*verbis* at 5.3; *dicendum est* at 5.8; and *doceo dictis* 5.56). The *pectus* is both the location of discovery and understanding (5.1-2, 5), as well as the seat of our fear of the gods (5.73-5). It is both the home of our fear, and the key to fear's destruction. This close connection between the two functions of our *pectus* might be seen as being highlighted through the correspondences.

The theme of the *mortale corpus* is emphasised throughout the fifth proem in small-scale emphasis. This small-scale allusion, between 5.6, 5.60, and 5.65, is an interesting one. Here, Lucretius begins Book 5 by suggesting at 5.6 that no-one of *mortale corpus* is truly worthy to sing of the discoveries which Epicurus made, given that he is a god. While Lucretius humbly claims his unworthiness of singing of the divine Epicurus, the main point of the start of the book is to emphasise Epicurus' divine status, and even to redefine divinity itself. Verses 59-61 are connected to this verse, where Lucretius recalls his explanation earlier in the poem that the human *animus* had a birth, and that it is mortal: 5.59-61: *quo genere in primis animi natura reperta est* | *nativo primum consistere corpore creta,* | *nec posse incolumem magnum durare per aevum*). Then, at 5.65 Lucretius claims in almost identical language that his task is to explain the same of the *world's corpus*: that it is both *mortale* and *nativum*: *ut mihi mortali consistere corpore mundum* | *nativomque* (5.65-6).

First of all, the connection between the idea of Epicurus' divine status and the idea of being subject to death is quite sophisticated: it shows in just one allusion how an *understanding* of subjection to death—*mortalis* status—can give *access* to this divinity, or lack of *mortalis* status.[22] Two entirely different meanings of the word in

[22] See above, fn. 21, 148. The idea that Epicurus is divine lends more importance to the contents of the poem, and so there is a self-conscious aspect to this repetition which might persuade the reader that Epicurus' teachings are indeed superior to the contributions and benefactions of demigods and cultural heroes.

wider context are united and shown to be interlinked.[23] The lesson itself is connected to the relevance, or magnitude of the lesson. But secondly, Lucretius in a way 'corrects' the implication of the first *mortali corpore cretus* at 5.6 and the statement *deus ille fuit, deus* (5.8) by adding new information.[24] If one is to achieve the *ataraxia* of the divine (Epicurus' divine status at 5.8), one must understand not only that the soul had a birth and will have a death (5.59-60) but also that the world is a macrocosm of the human *corpus* (5.65).[25] The different arguments, summarised, are unified and new information accumulates, even in this brief plan of the fifth book. The inexactness of the allusion does not much matter in my view, since Lucretius repeats the ideas of the soul's having had a birth and its eventual death, and the world's identical mortal status, so many times throughout the poem. The reader gets the picture through amalgamation of argument, through statement piled on top of statement. As Cacioppo and Petty put it: 'comprehension, associations, elaborations, and inferences are more important than verbatim memory'.[26] The idea of the *mortale corpus* is an important case study for didactic repetition and warrants further discussion.

4.1.2.1 Case Study: mortality

Simple emphasis is achieved through frequent repetition of the phrase *mortali corpore* within Book 5.[27] As well as the allusions which I have already discussed, Lucretius

[23] Cf. the connection of different functions of *pectus*, pp. 188-9.
[24] For 'correction', see Thomas (1986), 188. Cf. Mansfeld (1995).
[25] This particular connection of world and body is strengthened by other instances where Lucretius uses analogy of body to explain the world and vice-versa. On this connection as a kind of analogy, see Schrijvers (2007), 259; on the related idea of the *makranthropos*, see Schrijvers (2007), 273-4, 276.
[26] Cacioppo and Petty (1989), 10.
[27] If I were to extend the case study to study examples of *mortali corpore* throughout the poem, we would see that on that much larger scale, different arguments are combined and applied to a new context to help the reader understand.

repeats the phrase *mortali corpore* three further times in Book 5.[28] At each of these points it appears with the adjective *nativus* (not always modifying the noun). It is surely significant that the adjectives describe not the *mundus* but the *corpus,* referring to the world. This connects in the reader's mind the notion of atomic resolution and dissolution with the larger-scale dissolution of the world and also with the mortality (and corporeal nature) of our bodies and souls.[29]

Apart from the examples in the proem, all three instances of *mortali corpore* in Book 5 which occur with *nativus* nearby occur within the broad argument for the world's participation in the process of birth and decline: 5.238, 5.321, and 5.377. The repetition can therefore still be classed as large-scale emphatic repetition. That said, this example might still be said to be on a relatively smaller scale than instances of repetition which occur between arguments separated by many more lines, and even by whole books of *DRN* (these types of repetition are discussed in the section below, 4.1.3):

> Principio quoniam terrai corpus et umor
> aurarumque leves animae calidique vapores,
> e quibus haec rerum consistere summa videtur,
> omnia nativo ac mortali corpore constant ,
> debet eodem omnis mundi natura putari. (5.235-40)
>
> Denique iam tuere hoc, circum supraque quod omne
> continet amplexu terram: si procreat ex se
> omnia, quod quidam memorant, recipitque perempta,
> totum nativo ac mortali corpore constat. (5.318-21)
>
> quare etiam nativa necessumst confiteare
> haec eadem; neque enim, mortali corpore quae sunt,
> ex infinito iam tempore adhuc potuissent
> inmensi validas aevi contemnere vires. (5.376-9)

The repetitions at 5.238 and 5.321 indicate an argumentative ring composition: the argument that the parts of the world are mortal and *nativus*, and so the whole must

[28] With variations in word order, the phrase occurs at 5.6, 5.65, 5.238, 5.321, 5.377.
[29] See above, p. 143, fn. 5.

also be so, is begun at 5.235-40 and completed at 5.318-23.[30] The third passage in which *mortali corpore* occurs (5.376-9) comes directly before the full description of what will happen at the point of the world's decline at 5.380-415. The three passages are linked verbally as well as in sense. Moreover the allusion at 5.376-9 to the first two instances of the phrase at 5.239 and 5.321 links the *idea* of the world's decline with a vivid account of the *occurrence itself*. Lucretius brings the image to the reader's eyes, allows him to connect the possibility with a picture of the phenomenon, and so renders the whole idea much more believable.[31] The vividness achieves something of the function of analogy without using analogy itself, but rather through internal allusion.

On a basic level, the repeated adjectives *nativus* and *mortalis* to describe the earth emphasise the status of the whole world as being both subject to death and as having had a birth.[32] The duplications also rhetorically lead the reader to consider these assertions as fact.

We have seen that large-scale emphasis can connect different arguments in 3.1.3. Here we see a comparable outcome of the repetition, in that different parts of a unified point are connected through reiteration not only of language but also of ideas and concepts. Lucretius takes advantage of the associations he is building in the reader's mind between particular words or phrases and larger ideas. In repeating in a new context particular signpost words which have already created connections to different broader concepts, Lucretius not only stresses basic points, but also achieves the more sophisticated outcome of a unity between ostensibly different ideas, theses, or parts of the poem.

[30] On ring-composition for organising material but also as an oratorical device, see Marcoviç (2008), 78-9 and the earlier article by Worthington (1991), 55-74.
[31] See in general below, Chapter 5.
[32] See p. 214-15.

4.1.3 Emphasis Pervading *DRN*

Famous repeated passages which pervade the poem have been treated in Chapter 2. A prime example of this is the 'proem in the middle': the passage at 4.1-25 which is repeated from 1.926-50, and which I, with Conte and others, retain in both places.[33] Here, I reserve for discussion repeated themes which serve a markedly didactic purpose, and which are essential to conveying the broad message of *DRN*. I take one theme as a case-study, though there are others which might equally have been treated.[34]

4.1.3.1 Encouraging Conscious Learning

A particularly striking theme, which has been discussed briefly above in 3.3 is that of *vera ratio*. The theme contains some exact verbal mirroring but is more frequently reiterated inexactly.[35] The phrase may appropriately be rendered in English as 'correctly applied rationality' (that is, Epicureanism), or even, 'truth' or 'fact'.[36]

As I mention above p. 175, the phrase usually occurs in the context of Lucretius' stating that the reader strays far from *vera ratio*. This repeated assertion at different points in the poem serves two different functions. Some repetitions of *vera ratio* emphasise to the reader the danger of not using the philosophy which Lucretius advocates in *DRN* to improve her life. In short, the repetition makes a negative argument as to the detrimental effects of the misapplication of rationality or not using it at all in one's life. Used in this way, the repetition persuades the reader to keep

[33] See above, Section 2.3.
[34] Such as: the notion of a fixed time and fixed place (*certo…tempore*); the idea of the 'deep boundary' (*alte terminus*); spontaneous phenomena (*sponte sua*).
[35] See above, Section 3.2.1.
[36] cf. 2.1040-3.

reading, and to apply the teachings in the poem to her world and to her life. The second function of the repetition of the phrase is brought out where it occurs in a different context: where Lucretius uses it to convince the reader of a given fact. The act of repeating *vera ratio* is meant to show the reader that this particular scientific fact is actually a form of *vera ratio*.

At the beginning of the poem, immediately after the hymn to Venus, Lucretius tells the reader *Quod superest, vacuas auris animumque sagacem* | *semotum a curis adhibe veram ad rationem* (1.51-2).[37] Lucretius begins the scientific exposition of the poem by an appeal to the reader to apply a keen mind free from cares and expectant ears to *vera ratio*. This immediately and protreptically characterises the science which will follow throughout the poem, or even the whole poem itself, as *vera ratio*. Such a suggestion may have a psychological effect of endorsing the importance of the contents which follow, which would in turn render the reader eager to read on. From the start of the poem the idea of science as *vera ratio* is used as inducement to read on; one already sees that the two functions of the repetition of the phrase are intertwined, though they appear distinct.

Six other instances of *vera ratio* serve a comparable purpose: to encourage the reader to read on. These vary in their more specific function and outcome.

At 1.498-9, *sed quia vera tamen ratio naturaque rerum* | *cogit, ades, paucis dum versibus expediamus* tells the reader to be present to listen to (*ades*) the fact that there are (fundamental) bodies of matter which are *solido cum corpore*. This same urging of attention of the reader is conveyed at 2.1023 with *nunc animum vobis adhibe veram ad rationem*. The similarity of the function of the invocation of *vera ratio* to

[37] While *semotum*/ *remotum* in conjuction with *vera ratio* later in the poem refers to the fact that the reader strays far from *vera ratio* if she believes X or Y, the first instance of *vera ratio* occurs in the same line as *semotum*, yet *semotum* (*a curis*) here modifies *animum sagacem*. It is the mind free from cares which must be applied to rationality.

the first instance at 1.51 is emphasised by the repetition of the instruction to apply one's mind: *adhibe animum*. *nunc* too at 2.1023 conveys an immediacy similar to the *quod superest* of 1.51.

A more subtle encouragement to continue learning from *De Rerum Natura* is made at 5.23, where Lucretius, in the so-called 'eulogy of Epicurus'—which I prefer to characterise as a lengthy inducement to read on, or an *exordium*—states that if 'you', the reader, suppose that the deeds of Hercules surpass those of Epicurus in terms of the benefit conferred on mankind, then *longius a vera multo ratione ferere*. The reader is persuaded that the benefit of Epicurus' philosophy to one's state of mind is greater than any of Hercules' labours: Hercules' labours could have no positive effect on any reader, since no creature which Hercules destroyed could cause her fear, if she has internalised Epicurean teachings (5.24-52). If the reader is made aware of the fact that the perils of the mind are far greater than any (mythological or real) physical danger of beasts which may be vanquished by brawn alone (5.43-54, especially *haec igitur qui cuncta subegerit ex animoque | expulerit dictis, non armis, nonne decebit | hunc hominem numero divom dignarier esse?* (5.49-51)), then she will be more likely to wish to continue to learn from Lucretius' poem.

The merits of Epicureanism are again emphasised by the recurrences of *vera ratio* at 5.1117 and at 6.80. The former instance of the phrase occurs as part of the argument that wealth and ambition causes conflict among men and that such things are detrimental to humanity, while if one governs one's life by rationality, he or she would possess an *animus aequus* (5.1117-9).[38] This emphasises the benefits of Epicureanism by virtue of teaching the student that she does not need much in the way of material possessions in order to be happy: she learns (briefly) about the limits

[38] The fuller context may be found at 5.1105-35.

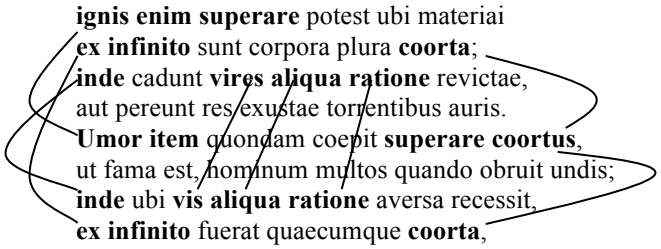
of pleasure.[39] The second of the two instances (6.80) emphasises a different benefit of Epicureanism. Here, Lucretius writes that in order that *verissima ratio* can thrust a life fearful of the gods far from us, more words need to be spoken, and more lessons need to be learned (6.83).[40] This passage explicitly asks the reader to keep her attention on the poem. The previous encouragement to continue learning through highlighting the benefits of Epicureanism is more of an implicit suggestion. It is noteworthy that the final instance of *vera ratio* in the poem (6.80) is closer in technical and rhetorical outcome to the very first instance of the phrase than to the other, more subtle uses of *vera ratio*.

I have not mentioned a sixth instance of *vera ratio*, the penultimate occurrence of the phrase in the poem, which is an outlier in terms of function. At this point Lucretius has just used the Phaethon myth to illustrate how fire as one of the four elements (air, earth, fire, and water) can conquer the others (5.396-405). This description occurs in the wider context of a description of different elements breaking down other elements, itself part of a broader argument that the world is susceptible to death. Lucretius concludes the description of the Phaethon myth with a statement which undermines its truth: *quod procul a vera nimis est ratione repulsum* (5.406).[41] After this statement that this myth is not *vera ratio*, Lucretius gives a remarkably scientific description of the interaction of the elements as one breaks another down. *vera ratio* is used here to rationalise myths practised by philosophers:

[39] Incidentally, the description of strife found in these lines in *DRN* could no doubt stand as a suitable example of Lucretius' tendency to illustrate a more abstract idea with an example familiar to the reader: the ambition, greed, and competition would not be a new idea to the Roman reader, even if this has mainly been encountered in literature. On the difficulty of teaching the reader about the complex Epicurean theory of pleasure, see, e.g. Reinhardt (2002), 292-4.

[40] Immediately after this passage comes mention of the science of the skies. More intratextual connection may be found here (gods and skies are intricately and frequently connected by Lucretius in this way).

[41] One might suggest that this and similar instances could be used as an argument for retaining 1.44-9, given the general similarity of the technique of following myth with truth.



ignis enim superare potest ubi materiai
ex infinito sunt corpora plura **coorta**;
inde cadunt **vires aliqua ratione** revictae,
aut pereunt res exustae torrentibus auris.
Umor item quondam coepit **superare coortus**,
ut fama est, hominum multos quando obruit undis;
inde ubi **vis aliqua ratione** aversa recessit,
ex infinito fuerat quaecumque **coorta**,
constiterunt imbres et flumina vim minuerunt. (5.407-15)

As is plain to see, Lucretius uses small-scale repetition to mirror in language the phenomenon he describes. This will be explored in detail in the next chapter, which focuses on this specific mirroring or imaging function of repetition. As well as making the science in the poem more vivid for the reader in general and ultimately more persuasive by this kind of small-scale intratextuality, I also propose that in following his rejection of myth with a passage so vivid and intricate, Lucretius renders the rationalism in his poem as engaging as possible. In this way the reader may be persuaded to continue reading. It is debatable how far this strategy, if intended in this way, is successful. But it is likely that Lucetius here tries to sell *vera ratio* to his reader as something as attractive as, or even more engaging than, myth and falsehood, and uses repetition to do so. One might term this kind of strategy as metarhetoric, given the combined self-consciousness and persuasive aim.[42]

There is a second, arguably more straightforward technique which Lucretius exhibits in his reiteration of the phrase *vera ratio*, which I mention above in brief. This is seen where Lucretius uses the repeated phrase simply to convince the reader of a given fact.[43] Often there is a demythologising element to such scientifically focused parts of the poem. But it is possible that in simply repeating the phrase, Lucretius

[42] For the concept of metalanguage where there exists rhetorical purpose, see Reinhardt (2008b), 202-3: 'c. 5-4 BC is the moment when rhetoric ceased to be taught and learned intuitively. It is this metalanguage that is instrumental to rhetoric's ability to describe and methodically generate persuasive speech irrespective of content, and to account for its own successes and fialures and hence become an art in the ancient sense of the term. The occurrence of elements of this metalanguage, i.e., of rhetorical terminology, in rhetorical discourse itself is then a rhetorical feature.' 202-4 in general are particularly instructive in exploring the criteria for something to be considered rhetoric (see too Chapter 3); cf. Sections 2.3.2, 4.1.3, 4.2.2.4, and 4.3 for self-consciousness.

[43] Cf. above, Section 4.1.

manages to convince the reader of the inherent virtue, or at the least the importance, of rationality, and so there does seem to be a self-referential, self-conscious, or metarhetorical element to the use of the phrase *vera ratio* even when it is used ostensibly to argue for scientific correctness. I find twice as many instances of this outwardly more straightforward purpose of repeating *vera ratio*: twelve in total in the poem, compared with six of the previous function of more explicit inducement to read I discuss above.

Lucretius uses *vera ratio* to persuade the reader that truly 'solid', indestructible, and therefore fundamental, matter exists. Part of this argument consists of the idea that there could not be void in any matter unless the matter which surrounds it is *solidum*: *nec res ulla potest vera ratione probari* (1.513).[44]

Precisely the same function of the repetition occurs at 1.623, where Lucretius invokes rationality to argue that there must be some smallest particles.[45] At 1.637 Lucretius writes that those who think that fire is the original substance *magno opere a vera lapsi ratione videntur*. This verse is repeated in entirety at 2.176, where Lucretius claims that those who suppose that the gods arranged everything as it is for man have also slipped far from rationality. This particular repetition connects philosophical myths—in this case fire as fundamental substance as proposed by Heraclitus—and religious myths (here, divine creation) as being equally pernicious, given that both involve false or misapplied rationality.

Other facts are described as being far from true reasoning: that all things are immingled in all things (1.880);[46] if the reader thinks that the first beginnings stand

[44] Despite my earlier definition of *vera ratio* as 'correctly applied rationality', here it might be more accurately rendered as something like 'accuracy'.
[45] Here, Lucretius makes a negative argument and says: *quod quoniam ratione clamat vera negatque*.
[46] *quod tamen a vera longe ratione repulsumst*.

motionless she wanders far from *vera ratio* (2.82);[47] if one supposes that a heavier atom could fall more quickly and therefore meet an atom below, he or she strays from true reasoning (2.229)[48]; the story of Mother Earth as goddess, though well told, is not true, and is removed from true reasoning: *longe sunt tamen a vera ratione repulsa* (2.645); that Lake Avernus is the entrance to Hell is far from true reasoning (6.767-7)—these two refutations are particularly obvious examples of demythologising;[49] and that natural phenomena have supernatural causes: *quod nimis a verast longe ratione remotum* (6.853).

Other pseudo-scientific 'facts' are rejected according to *vera ratio*. These include the immortality of the mind—that the *mens* is changed by medicine and also exhibits signs of mortality (3.521-5), shows that it is mortal—so far is *vera res* seen to combat (*occurrere*) false reasoning: *usque adeo falsae rationi vera videtur | res occurrere* (3.523-4).[50] Lucretius also explains that the way in which the stars appear to move against clouds is in fact different to the manner in which they actually move: *longe aliam in partem ac vera ratione feruntur* (4.446).[51]

This leads on to the next instance of the phrase, and the final one which I discuss, at 4.485. Here Lucretius writes that rationality cannot conquer the senses (4.478-99), *qui nisi sunt veri ratio quoque falsa fit omnis* (4.485). This is because rationality relies on the senses being accurate, and what is more, our reason comes from our senses.[52] This is the only time in the poem that *ratio* is not described as being *vera*. The word order is striking: with *veri* placed next to *ratio* and the *falsa* which actually modifies *ratio* separated from *ratio* by *quoque*, the reader could be forgiven for thinking that

[47] See above, pp. 153-4 for wandering from true reason if you think the atoms do not wander.
[48] *avius a vera longe ratione recedit*.
[49] *quod procul a vera quam sit ratione repulsum* (| *percipe; nam de re nunc ipsa dicere conor*) (re = truth). Cf. 3.523.
[50] For *res* as truth, cf. 6.767.
[51] Cf. 2.207-9.
[52] Cf. p. 151, fn. 26.

this repetition is identical to the others, that is to say, a repetition of the notion of 'correctly applied rationality'. This misleading word order which allows the reader to misinterpret what she sees or hears might well reflect the very phenomenon Lucretius describes, both at this point in the text, and at the point of the previous repetition where he discusses the appearance of stars' movement as being different to how they in fact do move.[53] In the same way, the text appears to mean something different than it does in actuality: it is only when we apply our rationality (which indeed comes from our senses—we use our eyes to see the words and the sentence structure in full and our ears to hear the inflections of the words) that we understand what the text actually means; what the truth or *natura rerum*, really is.

I wanted to explore here a case of large-scale emphatic repetition or internal allusion; there are numerous other examples which might equally be cited.[54] In the case of large-scale repetition for emphasis which pervades the poem, I illustrated that the allusions can contribute to simple strengthening of an argument. Alternatively, they can persuade the reader to continue in her lessons. Although there are elements of self-consciousness in evidence in each outcome, the second function is more obviously metapoetic or metarhetorical and arguably more complex.

I attempted to show that on each scale that emphatic repetition occurs, the outcome is never really simple: although there is a basic level of pure emphasis which is necessary before other outcomes may have effect, there is always more than one function for these allusions, whether they occur on a small or a large scale. In *DRN*, persuasion is inevitably the purpose and outcome, so one might see how closely 'didactic' repetition and allusion and rhetorical strategies are linked.

[53] One might see too connection to the related argument about the misleading nature of dreams. On which see above, Section 3.2.1, and below, 4.2.1 and 4.2.2.3.
[54] See also above, pp. 194-6.

4.2 Arguments and Applications

An important way in which Lucretius conveys his message to the reader is through the recycling of arguments throughout the poem. He also uses this recycling to show the interconnected nature of many of the scientific, Epicurean principles which *DRN* describes and explains.

Lucretius reapplies a lesson which occurs at an earlier point in the poem to a later, more complex idea, thereby repeating the lesson itself, which is itself clearly didactic as well as rhetorical (see previous chapter and below for *expolitio*), as well as restating it in a new way. This form of repetition is much more subtle than emphatic repetition, involving as it does the duplication not necessarily of words but of ideas, concepts, arguments, and scientific principles. It also frequently makes use of signposts: verbal repetitions which indicate argumentative unity which goes much deeper than the verbal level.

4.2.1 Centaurs and Gods

An example of this strategy of applying a simpler argument to a more complex one is where he connects the idea of erroneous perception and misapplied rationality to a statement of the non-existence of centaurs. Eventually he connects these combined ideas to subtly convince of the non-existence of the gods.[55]

I have already used in this allusion in 3.2.1 as an example of repetition for *expolitio*. This technique involves the repetition of ideas rather than words: *expolitio est cum in eodem loco manemus et aliud atque aliud dicere videmur* (*Rhet. Her.*

[55] See above, 3.2.1 for details and scholarship on this complex issue.

4.42.54). I argue in Chapter 3 that in his use of *expolitio* Lucretius uses the technique in the way outlined in the *Rhetorica ad Herennium*, but he also deviates, in that he *seems* to dwell on the same topic and yet is *actually* saying something new and distinct from the previous assertion. One might alternatively say that the later assertion brings an entirely new perspective to the previous one.[56] This example is apt for discussion here precisely because it illustrates so well the close relationship between didactic and rhetoric in Lucretius.

I suggest in the previous chapter the dual function of this repetition: on one, straightforward level, the idea that centaurs never existed is emphasised; in a way a side-effect of the explanation as to how the mind can see things which do not exist. The 'higher' level is the function I discuss here, which is clearly didactic and involves the application of an earlier argument to a later one.

> nam certe ex vivo Centauri non fit imago,
> nulla fuit quoniam talis natura animalis.
> verum ubi equi atque hominis casu convenit imago,
> haerescit facile extemplo, quod diximus ante,
> propter subtilem natram et tenuia texta.
> cetera de genere hoc eadem ratione creantur..
> (4.739-44)
>
> Sed neque Centauri fuerunt, nec tempore in ullo
> esse queunt duplici natura et corpore bino....
> (5.878-9)

The example in Book 4 shows the possibility that the mind creates images of things which may not exist (for example, centaurs). This idea of the unreliability of the mind is stressed when one is reminded again at 5.878-9 that centaurs did not exist. The fact that centaurs did not exist is also stressed.

Lucretius explains that images of supersize humans seen when people were awake and asleep led people to believe that they dreamed of gods (5.1161-82).[57] The rational accounts of images which need not emerge from things which exist would surely be

[56] See Mansfeld (1995).
[57] For other reasons for religious belief and fear see 5.1204-40.

recalled here.[58] It is only when these two arguments, that centaurs did not exist and that the mind is fallible, are seen in combination that one may infer the non-existence of gods (or at any rate of gods with all of those particular divine qualities seen in *simulacra*).[59]

The strategy I have just described is an example of Lucretius connecting through verbal repetition arguments which appear unrelated. The reader is taken through the accumulating steps of the broad argument. By associations created in the mind of the reader (the centaur does not exist; the mind can be fallible; people saw the gods in their minds), the reader pieces together the parts of the argument, using the knowledge gained previously in the poem, to conclude that the gods do not necessarily exist. Lucretius bolsters this too by supplying explanations for things which the gods are meant to be responsible for.[60]

4.2.2 Case Study: *sponte sua*

The didactic method of applying earlier premises or arguments to later ones to make them more understandable and persuasive uses verbal repetitions to signpost these argumentative and cumulative connections. An illustrative example of this strategy is found in repetition of the phrase *sponte sua*.[61] The phrase occurs 20 times in *DRN* (only once divided by the emphatic phrase *per se*), and fifteen times in line-initial position. The phrase occurs in all six books of the poem. I argue that reiterations of this phrase occur in increasingly complex contexts as the reader makes her way

[58] For the explanation of false images, see 4.722-76.
[59] These qualities are: *mirando corporis auctu* (5.1171), *sensus* (5.1172), outstanding beauty and great strength (5.1174), *aeterna vita* (5.1175), and preminance in happiness (5.1179).
[60] e.g. In Book 5 (creation of the world); and Book 6 (disease, weather). This makes re-reading more plausible.
[61] Cf. Section 4.1.3 on pervasive repetitions. This case may also be considered an example of pervasive repetition.

through the poem, and that later instances both indicate and emphasise a more complicated proposition, while also recalling much earlier, more fundamental, arguments. In this way, later arguments are both complex in and of themselves, and are complicated by virtue of including or referring to more than one, sometimes even three, major arguments. These arguments include both straightforward scientific factual assertions and any theological implications which may be drawn from these facts.

In short, the phrase is associated at the first instance both with the fundamental idea that nothing can come from nothing, and with the absence of divine action from Lucretius' scheme of the world, and especially their (missing) role in the creative processes of the world. Subsequently this repetition is associated both with fundamental scientific arguments and with arguments about divine inaction and the fear of death.

4.2.2.1 Spontaneous Generation; Removing the Gods

The first instance of *sponte sua* comes as a part of the major premise of the poem that nothing can come from nothing. It is worth noting that, after the argument that the world is made from matter and void, nothing else, this is the first scientific argument of the poem. This is also the first argument which questions divine production (1.149-50: *principium cuius hinc nobis exordia sumet, | nullam rem e nilo gigni divinitus umquam*).[62] Within the broader argument that nothing can come about *ex nihilo*, the phrase *sponte sua* appears as a part of the smaller argument that it is through

[62] Gale (2000), 6-7 notes that *divinitus*, though rare elsewhere, is 'a kind of catch-word' in Lucretius; occurring 8 times.

cultivation that crops grow more, and more effectively: if nothing came from nothing we would have no need of cultivation:

> Postremo quoniam incultis praestare videmus
> culta loca et manibus melioris reddere fetus,
> esse videlicet in terris primordia rerum
> quae nos fecundas vertentes vomere glebas
> terraique solum subigentes cimus ad ortus;
> quod si nulla forent, nostro sine quaeque labore
> **sponte sua** multo fieri meliora videres. (1.208-14)

Later, this very notion will be connected to the idea of the world's *culpa*: its flaws. The *culpa* argument will be used as a proof of the absolute lack of divine agency in the world's existence. That is to say, that gods did not create the world since it is so flawed: *tanta stat praedita culpa* (2.181, 5.199). It is surely meaningful, then, that *sponte sua* recurs at each of the points in the poem where Lucretius invokes the *culpa* argument.[63]

This leads us on to the fact that the phrase *sponte sua* appears at points in the poem where Lucretius rejects a view of active gods. The passage at 5.206-12, part of the *culpa* argument, is strikingly similar in content to the argument made in Book 2: it asserts that if man did not work the land, crops would not grow: they would not grow *sponte sua*. Both sections of the poem thus suggest that the world was not made by gods. If it had been divinely made, would there be so many (or indeed any) *culpae*?[64]

> quod superest arvi, tamen id natura sua vi
> sentibus obducat, ni vis humana resistat.
> vitai causa valido consueta bidenti
> ingemere et terram pressis proscindere aratris.
> si non fecundas vertentes vomere glebas
> terraique solum subigentes cimus ad ortus,
> **sponte sua** nequeant liquidas existere in auras; (5.206-12)

The passage then lists other flaws of the world: the death of plants, even when cultivated, owing to their less-than-ideal environments; the dangerous beasts which

[63] See 2.171-81.
[64] The use of the word *culpa* is in itself intriguing. Might it be a re-rationalisation of religious language? Kennedy (2007), 379-80 calls implications of religious language 'high risk'.

wander the earth; disease; premature death; and the famous description of the crying newborn child (5.213-27).[65] This line of argument is continued in the fifth book, and *sponte sua* is repeated in the three following parts of the text:

> principio genus alituum variaeque volucres
> ova relinquebant exclusae tempore verno,
> folliculos ut nunc teretis aestate cicadae
> lincunt **sponte sua** victum vitamque petentes. (5.801-4)

> at quis nil horum tribuit natura, nec ipsa
> **sponte sua** possent ut vivere nec dare nobis
> utilitatem aliquam, quare pateremur eorum
> praesidio nostro pasci genus esseque tutum,
> scilicet haec aliis praedae lucroque iacebant
> indupedita suis fatalibus omnia vinclis,
> donec ad interitum genus id natura redegit. (5.871-7)

> quod sol atque imbres dederant, quod terra crearat
> **sponte sua**, satis id placabat pectora donum. (5.937-8)

The first passage (5.801-4) describes how the first creatures came about on Earth: at that point, in its early development, Earth produced them. Winged things came first from their eggs, as now cicadas leave their *folliculi sponte sua*. It is Earth which deserves the name 'mother': *merito maternum nomen adepta* | *terra sit* (5.795-6); the gods were not productive.[66] The second passage is an argument for the evolution of living things, by survival of the fittest: creatures to which nature had not given the qualities necessary for survival, *nec ipsa* | *sponte sua possent ut vivere…* (5.781-2), and nature brought to destruction. Again, the gods are removed from the scheme of the world. The final passage is connected in particular to the first passage at 5.801-4, since it names the Earth as the productive agent. The broader context describes early man's being happy with what the earth had produced *sponte sua*: man did not farm at

[65] Line ending of 5.227 *malorum*: this might remind the reader of the ending of the remarkable line: *tantum religio potuit suadere malorum* (1.101).
[66] On 'mother earth', see Schrijvers (2007), 268.

that point in time (at that time, Earth was young and so was able to produced more and better crops) (5.931-44).[67]

Lucretius again indicates natural progress (as opposed to divine production) soon after this passage in Book 5: *quod cuique obtulerat praedae fortuna, ferebat | sponte sua sibi quisque valere et vivere doctus* (5.960-1). At this point in man's natural development, Lucretius tells us, with no society or law, man took what he was able to take: each man learned to take it himself *sponte sua*. The simple indication of process and development directly refutes a divine (and possibly implied instantaneous) creation. The process is continued later at 5.1147, and the reiteration of *sponte sua* might be a signpost to the continuation of this narrative: now man has laws, since he is ready *sponte sua* to fall under jurisdiction:

> nam genus humanum, defessum vi colere aevom,
> ex inimicitiis languebat; quo magis ipsum
> **sponte sua** cecidit sub leges artaque iura. (5.1145-7)

The *sponte sua* repetition clearly promotes a worldview without the gods throughout the fifth book. Arguably a major aim of Book 5 is to assert the gods' absence from worldly affairs and from the world's origin and subsequent development. One might sensibly question how far the arguments associated with the presence of the phrase *sponte sua* are dependent on the meaning of the phrase itself. But the argument behind the presence of the phrase seems in each case to be that there are no gods behind these phenomena or developments. There are clear associations built between *sponte sua* and the absence of the gods in the world.

The phrase also appears in the proem to Book 5 where Lucretius tells us of his plan to discuss the heavenly motions 'lest we think sun and moon traverse *sponte sua*'

[67] This passage in turn is connected to the argument in Book 1 about the necessity of farming given that nothing comes from nothing, and the *culpa* argument in 5.195-234 which states that the world is too flawed for it to have been designed by gods; and cf. 2.181 for the hint of this argument to come.

(that is, that they may be powerful in themselves as astral gods), whereas in fact, *natura* moves them:

> praeterea solis cursus lunaeque meatus
> expediam qua vi flectat *natura* gubernans;
> ne forte haec inter caelum terramque reamur
> libera **sponte sua** cursus lustrare perennis,
> morigera ad fruges augendas atque animantis,
> neve aliqua divom volvi ratione putemus. (5.76-81)

We note that the earlier instances of the phrase *sponte sua* indicate the lack of influence of the gods in atomic form and motion. We have already seen the phrase in its first appearance at 1.214, where Lucretius asserts there would be no need of cultivation if something could come from nothing (as a part of the argument begun at 1.150 that nothing can come from nothing). Along with the assertion of the existence of matter and void, this is the fundamental premise of the poem. We can therefore see a reapplication of earlier, more fundamental messages about how atoms move *sponte sua* (and therefore without the help or influence of the gods), with later ideas which are both comparable in complexity (the planetary motions are in a sense surely simply a larger-scale version of atomic motions) and also may be more complex (such as the idea of mother Earth producing things *sponte sua*).[68]

Returning to Book 1, let us look at the second time in the poem that the phrase occurs. The phrase comes as a part of a fundamental argument: that matter and the universe are infinite. The immediate context is Lucretius' assertion that our bodies cannot fly of themselves into the sky. This statement comes as a part of the assertion that matter does not tend towards the 'middle': there can be no middle, given that (matter and) the universe is infinite.[69]

[68] This constitutes a kind of analogy where a macrocosm is used for illustration: where a larger particle (as large even as a planet) is used to illustrate a much smaller particle of the world. For the comparable idea of seeds to illustrate atoms, see Schrijvers (2007), 258-60.

[69] It may be significant that our bodies are used as the example here, given that there are links to Book 3 in evidence; and given the connections between the body and world where Lucretius describes the makeup of the world at 5.534-63 (to which I see connections to 3.742-6). To a lesser extent perhaps

ictibus externis neque quoquam posse resolvi
summa atque ima, quod in medium sint omnia nixa,
ipsum si quicquam posse in se sistere credis,
et quae pondera sunt sub terris omnia sursum
nitier in terraque retro requiescere posta,
ut per aquas quae nunc rerum simulacra videmus;
et simili ratione animalia suppa vagari
contendunt neque posse e terris in loca caeli
reccidere inferiora magis quam *corpora* nostra
sponte sua possint in caeli templa *volare*;
illi cum videant solem, nos sidera noctis
cernere et alternis nobiscum tempora caeli
dividere et noctes parilis agitare diebus. (1.1055-67)

The next instance of *sponte sua* in the poem is connected to the previous one by its context: it similarly focuses on the idea that nothing can be borne upwards by its own power (*sua vi* (2.185)). The whole passage at 2.184-215 states that we should not think that fires leap upwards *sponte sua*. The wider context is also important. The verses preceding the statement discuss atomic motion in general at 2.62-141, and specifically focus on atomic speed at 2.142-66. After this Lucretius states that some, *ignari materiai* (2.167), do not believe that atoms alone could be responsible for all things on the earth (such things as the seasons, production of crops). These people therefore attribute some active role to the gods. In the lines immediately following, at 2.167-70, Lucretius refutes a teleological argument and subsequently says that the gods cannot have arranged the world for men (2.171-81), concluding with the damning statement: *tanta stat praedita culpa*.[70] We have already seen that the phrase *sponte sua* occurs twice where the *culpa* argument against divine creation is invoked (see above, pp. 204-5). It is after these arguments that Lucretius introduces motion: 2.182-3: *quae tibi posterius, Memmi, faciemus aperta. | nunc id quod superest de motibus expediemus*. This passage, as above, at 1.1055-67, proposes that nothing can be borne upwards by its own power, *sua vi* (2.184-215).[71] There are strong

there are connections between world and body too at 5.432-508. On the body and world at 5.534-63 see Schrijvers (2007), 274.

[70] See 2.176 for slipping far from *vera ratio*.

[71] *nec cum subsiliunt ignes ad tecta domorum | et celeri flamma degustant tigna trabesque, | sponte sua facere id sine vi subiecta putandum est* (2.191-3).

connections to the passage at 1.1055-67 which also discusses the idea that something cannot travel upwards by its own power, *sponte sua*. At 2.184-215 Lucretius states that we should not think that fires leap upwards *sponte sua*.

It should be clear that there are connections between the 'fundamental', straightforwardly scientific argument, about atoms not travelling upwards *sponte sua*, and more generally atomic movement and action, and a more complex idea of the flaws in the world as an argument against its divine creation. Instead, atoms and atomic motion are assigned the responsibility for production of matter on Earth. The point that Lucretius makes is that these things do not happen through the gods; he also emphasises either that these happenings are not spontaneous and without force, or simply that certain things (i.e. upwards movement) are simply not possible.

Later in Book 2, Lucretius makes the argument that there are other worlds (2.1048-89). This idea arguably emphasises the point that the world was not made for the sake of man, possibly recalling the *culpa* argument stated earlier at 2.167-81. Lucretius writes that *natura*—not a god—made the world, telling us that atoms collide *sponte sua* without aim or intention or the like: *quare etiam atque etiam talis fateare necesse est | esse alios alibi congressus materiai, | qualis hic est, avido complexu quem tenet aether* (2.1064-6).

> Principio nobis in cunctas undique partis
> et latere ex utroque supra subterque per omne
> nulla est finis; uti docui res ipsaque per se
> vociferatur, et elucet natura profundi.
> nullo iam pacto veri simile esse putandumst,
> undique cum vorsum spatium vacet infinitum
> seminaque innumero numero summaque profunda
> multimodis volitent aeterno percita motu,
> hunc unum terrarum orbem caelumque creatum,
> nil agere illa foris tot corpora materiai;
> cum praesertim hic sit natura factus et ipsa
> **sponte sua** forte offensando semina rerum
> multimodis temere in cassum frustraque coacta
> tandem coluerunt ea quae coniecta repente
> magnarum rerum fierent exordia semper,

terrai maris et caeli generisque animantum. (2.1052-63)

This argument builds up to the statement that *natura* is free of masters: it is not the gods who are responsible:

Quae bene cognita si teneas, *natura* videtur
libera continuo, dominis privata superbis,
ipsa **sua per se sponte** omnia dis agere expers. (2.1090-2)

This is the only instance of the phrase which is not phrased simply as *sponte sua*, but rather is inverted in order and has the emphatic *per se* in the middle of the phrase. It is also one of five instances of twenty which is not in line-initial position, and is the first time the phrase occurs in this metrical position. This instance of the phrase could be seen as emphatic by its difference in metrical position and in phrasing: the reader's expectations are in a sense confounded, and the change in order and line-position might draw attention to the words which follow: *omnia dis agere expers*. We are told explicitly that *natura* performs all its acts without the gods. This is the first time that Lucretius definitively and explicitly replaces the gods with another cause for phenomena in our world. The gods emphatically do not interfere on an atomic level.

Later in Book 2 we are told that bodies from without (*extrinsecus*) produced the earth (2.1105-43), and that as it was produced, so too the world will die (2.1144-74). Lucretius asserts that the world is declining, and, referring to his earlier argument at 1.208-14 states that it is through cultivation that crops are able to grow successfully: without cultivation nothing would grow well.[72] Let us look at both passages together:

Postremo quoniam incultis praestare videmus
culta loca et manibus melioris reddere fetus,
esse videlicet in terris primordia rerum
quae nos fecundas vertentes vomere glebas
terraique solum subigentes cimus ad ortus;
quod si nulla forent, nostro sine quaeque labore
sponte sua multo fieri meliora videres. (1.208-14)

iamque adeo fracta est aetas, effetaque tellas
vix animalia parva creat, quae cuncta creavit
saecla deditque ferarum ingentia corpora partu.

[72] The first *culpa* argument of the poem comes immediately before these lines.

> haud, ut opinor, enim mortalia saecla superne
> aurea de caelo demisit funis in arva,
> nec mare nec fluctus plangentes saxa crearunt,
> sed genuit tellus eadem quae nunc alit ex se.
> praeterea nitidas fruges vinetaque laeta
> **sponte sua** primum mortalibus ipsa creavit,
> ipsa dedit dulcis fetus et pabula laeta;
> quae nunc vix nostro grandescunt aucta labore,
> conterimusque boves et viris agricolarum,
> conficimus ferrum vix arvis suppeditati:
> usque adeo parcunt fetus augentque laborem. (2.1150-63)

The explanation of cultivation in full at 2.1105-74 was used to defend the notion that nothing can come from nothing: if something could come from nothing then there would be no need of farming.[73] The first passage (1.208-14) is a straightforward illustration of the idea, fundamental to all subsequent arguments in *DRN*, that nothing can come from nothing, as I explain above. The second time this specific argument is invoked (and signposted with a repetition of *sponte sua*), the argument that the world is full of *culpa* is added: because it is necessary that we toil and work the land, the world is seen therefore to be imperfect for our needs, and so one cannot argue that gods created the world (2.167-81).[74] A new argument against the idea of divine activity and in particular divine creation has been added to the previous one, which was arguably more subtle, and which relied on the *nihil ex nihilo* principle, fundamental to Lucretius' poem.

One sees yet another aspect of Epicurean philosophy added to this already complex network in the text. The idea of the earth declining seen at 2.1150-63 clearly indicates her mortality. Earth is personified as an old woman who can no longer produce 'offspring' as she once did: *iamque adeo fracta est aetas effetaque tellus | vix animalia parva creat, quae cuncta creavit | saecla deditque ferarum ingentia corpora partu* (2.1150-2).[75] She is *effeta* and can now bear only *animalia parva* as opposed to

[73] Cf. 1.208-14.
[74] The presence of the *culpa* concept is one of many parts of the poem which has led some to believe in the idea of a Lucretius at conflict with himself.
[75] This idea is explicitly repeated in Book 5, at 5.783-825.

enormous beasts. In this one network of a phrase-repetition in Books 1 and 2, we see the connection between foundational physics, the idea of the gods' inactivity in our world, and the idea of the natural growth and eventual death of that world. Basic principles of Epicurean physics, and the two major arguments or applications of *DRN*: that one ought not to fear gods, nor death, are seen to pervade the poem. Ideas are combined and simple ones are used to understand more complex ones, in a highly artful didactic strategy.

4.2.2.2 Curing a Fear of Death

A similar connection between fundamental physics (specifically in this case spontaneous atomic movement) and not fearing death is generated at 3.1039-41, where Lucretius urges the reader not to fear death, to think about all those before you who have died, and specifically refers to Democritus' offering himself *sponte sua* to death:

> denique Democritum post quam matura vetustas
> admonuit memores *motus* languescere mentis,
> **sponte sua** leto caput obvius optulit ipse. (3.1039-41)

This passage connects the notion of fear of death (or lack thereof) with other arguments, and especially with fundamental physical precepts (in particular about atomic movement) in several ways: first, through the recurrence of *sponte sua* which calls to mind previous argumentative contexts which have, as I have shown, included atomic behaviour and movement; secondly, through the mention of *motus* which must surely bring to mind passages describing atomic motion, such as 2.81, 2.111; and thirdly, by the very fact that Democritus (after his tutor, Leucippus) was one of the

first atomists.[76] One might recall too that the earth's failure to produce all kinds of creatures *sponte sua* where once she did so at 2.1150-63, discussed just above, is clearly associated with her eventual or impending death, and forms part of a much wider argument against the fear of death. Death, like life, comes about without divine intervention.

Death is again associated with repetition of *sponte sua* where the phrase reappears in the proem to Book 3. The passage containing *sponte sua* in Book 3 is repeated with slight variation in the proem to Book 4.[77] Both passages, with differences highlighted, are below:

> **Et** quoniam docui, cunctarum exordia rerum
> qualia sint et quam variis distantia formis
> *sponte sua* volitent aeterno percita motu,
> **quove** modo **possint** res ex his quaeque creari, (3.31-4)

> **Sed** quoniam docui cunctarum exordia rerum
> qualia sint et quam variis distantia formis
> *sponte sua* volitent aeterno percita motu
> **quoque** modo **possit** res ex his quaeque creari, (4.45-8)

Each passage, in a manner customary to Lucretian proems, summarises previous arguments. Lucretius repeats in sum the description of the *exordia*: what they are like, how varied are their formations, and how they fly, *sponte sua*. The repetition of *sponte sua* in each passage may connect in the reader's mind atomic form and motion with the lack of divine influence on the atomistic world. The passive *creari* could

[76] *DNP* s.v. *Atomismus* (Bodnar/ Hidber).

[77] I take both passages to be authentic. The authenticity of the second passage is questioned by most editors and commentators. Most believe the Book 4 repetition to be unauthentic, and editors bracket 4.45-53. e.g. Smith: '45-53 are bracketed in both text and translation, because it is certain that Lucr. did not intent to retain them. They were evidently written at a time when his plan was that Book 4 should follow Book 2, for 45-48, which are, except for three minor variations, identical to 3.31-34, refer to the subject matter of Books 1-2.' Cf. Mewaldt (1908). I prefer to analyse the passage as if it were genuine. If we take both passages as authentic, and particularly if one replaces the *sed quoniam* in Book 4 with the *et quoniam* of Book 3 then the passage is much less jarring in its context in Book 4 ('Kenney's Law' states that one can sensibly replace any single-syllable word at the start of a poetic line with any other). The objection that Book 4's proem covers the contents of Books 1 and 2 may be alleviated by the fact that Book 5's proem also refers, at 5.59-61, to the arguments of a book not directly preceding it: Book 3. For more detailed discussions of long repetitions and authenticity see above, Chapter 2, esp. 2.3. Cf. Conte's (1994) arguments about the 'proem in the middle', which are applicable here as well as with the famous 'doublet' at 4.1-25 (repeated from 1.926-50).

draw attention to the idea that *res quaeque* is not created by an active being, but rather happens to be created by movements which happen independently: *sponte sua*. The Book 3 passage in its full context also connects this fundamental argument to the banishment of the fear of death:

> Et quoniam docui, cunctarum exordia rerum
> qualia sint et quam variis distantia formis
> **sponte sua** volitent aeterno percita motu,
> quove modo possint res ex his quaeque creari,
> hasce secundum res animi natura videtur
> atque animae claranda meis iam versibus esse
> et metus ille foras praeceps Acheruntis agendus,
> funditus humanam qui vitam turbat ab imo
> omnia suffundens mortis nigrore neque ullam
> esse voluptatem liquidam puramque relinquit. (3.31-40)

In Book 4, Martin transposes verses 45-53 to after 4.25. This makes good sense argumentatively. Atomic structure is discussed in Books 1 and 2 *before* it is discussed with reference to the mind and body. It would be interpretatively neat, therefore, not to mention wholly likely, for the proems to reflect this in a micro-structure of the poem as a whole, which is the result of Martin's transposition. It makes sense for Lucretius to repeat the lessons about atomic form and motion (arguments from Books 1 and 2) *before* mentioning the mind and what happens when it is separated from the body (from Book 3).

This, along with my suggestion (see p. 214, fn. 77) of changing Book 4's *sed quoniam* to the *et quoniam* of Book 3, resolves the very abrupt translation from 48 to 49. Presuming the reduplication of the passage in Book 4 is genuine, the passage in Book 4 emphasises (obviously) the idea which is repeated from Book 3. It renders arguments about atomic motion as presumptive information.[78] It summarises the content of Book 2, in emphasising the connection between the lack of divine involvement in the world's creation and its phenomena, and atomic motion *sponte*

[78] See p. 183, fn. 7 above. Cf. the concept of repeating to indicate 'common ground' information in a learning situation, in Clark and Bernicot (2008), 349-71.

sua. But given the obviously strong connection between the passages in Book 4 and Book 3 (because they are identical and therefore clearly intended to be linked in some way), there is also a continued suggestion of the idea that atomic or scientific knowledge can cure a fear of death.

Yet more indication of science's (and the poem's) usefulness in defeating fear of death is found in the subsequent repetition of the phrase at 4.131:

> Sed ne forte putes ea demum sola vagari,
> quae cumque ab rebus rerum simulacra recedunt,
> sunt etiam quae **sponte sua** gignuntur et ipsa
> constituuntur in hoc caelo, qui dicitur aer,
> quae multis formata modis sublime feruntur,
> ut nubes facile inter dum concrescere in alto
> cernimus et mundi speciem violare serenam
> aëra mulcentes motu; nam saepe Gigantum
> ora volare videntur et umbram ducere late,
> inter dum magni montes avolsaque saxa
> montibus ante ire et solem succedere praeter,
> inde alios trahere atque inducere belua nimbos. (4.129-40)

This passage begins the argument that *simulacra* (images) do not only arise from passing off things but can also come about *sponte sua* and are formed by themselves in the air. The connection to Book 3 is found in the subsequent illustration of the speed with which images can form, where Lucretius compares this process with the formation of clouds in an analogy:[79]

> Praeterea modo cum fuerit liquidissima caeli
> tempestas, perquam subito fit turbida foede,
> undique uti tenebras omnis Acherunta rearis
> liquisse et magnas caeli complesse cavernas:
> usque adeo taetra nimborum nocte coorta
> inpendent atrae formidinis ora superne;
> quorum quantula pars sit imago dicere nemost
> qui possit neque eam rationem reddere dictis. (4.168-75)

Lucretius describes how clouds can appear so swiftly that you might think that Acheron's darkness has come to fill the sky. Particularly striking reminiscences of Book 3 are found in the vocabulary: *taetra*, *atra*, *formido*, *Acheron*. A straightforward illustration of a scientific argument is connected to the general message of Book 3: to

[79] On Lucretius' use of analogy strategies, see generally Chapter 5.

not fear death. So one is subliminally led to the idea that scientific principles are relevant to this fear. There is also implied connection, through the repeated *sponte sua*, to the fundamental principles of atomic motion (essential to this argument about *simulacra* which depends on basic understanding of atoms), to the infinite nature of the universe and of matter (see above, pp. 208-9 on 1.1055-67), to the way that atoms move and combine *sponte sua*, and therefore that no divinity contributes towards the production of matter. Simple premises are applied to much more complicated arguments.

4.2.2.3 Versus the Existence of the Divine

This argument in general, that *simulacra* can arise *sponte sua* (not necessarily from actual objects or beings) sheds much light, as I describe above in 3.2.1 and 4.2.1, on the later assertion in Book 5 that the images of the gods seen in dreams are the cause for religious adherence, at 5.1161-1182. The notion of dreams being sent by gods is a target here, and yet, as discussed above, the opponent (Homer) is not named.[80]

The reader learns in Book 4 about the true nature of *simulacra*, and that they need not represent existing things or beings. She will therefore understand that dreams of gods were incorrectly understood in the past to be accurate representations of real deities. We have already seen the general reapplication of the apparently unrelated premise. The duplication of *sponte sua* gives even more emphasis to the connection between the different passages.

At 4.736 Lucretius strengthens the earlier assertion (4.129-40) that images may come about *sponte sua* from the air. Here he goes a step further, still gentle though the

[80] See above, Section 3.3 on opponents.

assertion is, in claiming: *nam certe ex vivo Centauro non fit imago*, | *nulla fuit quoniam talis natura animalis* (4.739-40). That is, an image of a centaur need not come from an actual centaur. Where *sponte sua* is repeated just before this claim, the connection to the previous argument about *simulacra* from the air is blatant: *partim sponte sua quae [simulacra] fiunt aere in ipso,* | *partim quae variis ab rebus cumque recedunt* | *et quae confiunt ex horum facta figuris*. (4.736-8). The full passage is below:

> Centauros itaque et Scyllarum membra videmus
> Cerbereasque canum facies simulacraque eorum
> quorum morte obita tellus amplectitur ossa;
> omnigenus quoniam passim simulacra feruntur,
> partim **sponte sua** quae fiunt aëre in ipso,
> partim quae variis ab rebus cumque recedunt
> et quae confiunt ex horum facta figuris. (4.732-8)

Lucretius continues to claim that centaurs never existed: the image of a centaur never came from a living centaur (4.739-44). This argument is later applied to Lucretius' explanation for the origin of religious belief as being the dreams that man had, and the false images of gods which they saw in these dreams.[81] At that time, without Epicurus' teachings, man was not in a position to distinguish false *simulacra* from real ones, or *simulacra* which represent and are emitted by realities, from those which come from the air *sponte sua*.

The reader may also recall in this context the repetition of *sponte sua* as part of the verses which assert the ultimate truth of what the senses relate: *nam maiore fide debet reperier illud,* | *sponte sua veris quod possit vincere falsa* (4.480-1). Dreams are not an accurate source of truth, nor do they rely on the senses, since one does not actually see what one dreams. There is a subtle argument, but one which is seen clearly if one reads the poem in its entirety (and especially if one re-reads the poem one or more times), that in fact the images which man saw of the gods were false, and certainly no

[81] On which see above, Sections 3.2.1, and 4.2.1.

foundation on which to base a religious way of life. This idea is made clear by the internal allusion within the poem, and by sophisticated application of different arguments and premises to later statements. Reiteration of *sponte sua* is one way in which the reader's eye is drawn to the connections.

4.2.2.4 Metarhetorical Spontaneity

Another level is added to the meaning of these repetitions: *sponte sua* sometimes seems to self-consciously indicate the value of the poem.[82] First of all, the verses I have just mentioned may be read as metapoetically supplying defence for scientific argument: *nam maiore fide debet reperirier illud, | sponte sua veris quod possit vincere falsa* (4.480-1) (for some thing must be discovered which holds greater certainty, which can, in itself (*sponte sua*), defeat false things with the truth). As I have said, Lucretius claims the certainty and reliability of the senses in this case.[83] The lines incorporate the notion of senses and truth, defends scientific argument (and also therefore *DRN*) in part through connection to the manifold factual assertions which also contain *sponte sua*, and so can persuade the reader to continue to read and learn.[84]

The final recurrence of the phrase in the poem and in this case study is towards the end of Book 6. After all of the complexities of the intratextual relationships between the various repetitions of *sponte sua* and the interconnected nature of arguments both simple and complex, we see here a return to the fundamentals: Lucretius makes the

[82] Cf. above for *vera ratio* as being self-conscious. For self-consciousness in general see below, Section 4.3.
[83] Cf. p. 218 above for Lucretius' statement of the reliability of the senses.
[84] Lucretius has however already said that images can come about *sponte sua* which are not really of what they purport to represent (e.g. monsters etc out of clouds at around 4.130).

comparatively simple argument that bodies cannot rise up of their own volition into the air:

> hoc fit idem cunctas in partis; unde vace fit
> cumque locus, sive e transverso sive superne,
> corpora continuo in vacuum vicina feruntur;
> quippe agitantur enim plagis aliunde nec ipsa
> **sponte sua** sursum possunt consurgere in auras. (6.1017-21)

At this point of the poem Lucretius discusses how a magnet works, as part of a broader effort to simply encourage his reader to understand the rationality behind particular phenomena. Thales supposed that the magnet was endowed with a spirit of its own; how far this extended to general belief is difficult to say, but Lucretius' particular treatment of the phenomenon may indicate general misunderstanding about magnetisation.[85]

In this part of *DRN* Lucretius argues that *corpora* are driven by blows from other directions, which cause their movement, not automatic motion. Lucretius clearly uses earlier lessons which I mention above, found at 1.1055-67, where he says that our bodies cannot fly skywards (as part of an assertion that matter and the universe are infinite), and at 2.184-215, where he claims that nothing can be borne upwards *sponte sua*. The relation of these passages to refutation of active gods has been discussed above, pp. 208-10. And so we already see another network of intratextuality open with this one example of the phrase in Book 6. It is striking that the argument itself at this point is of a fundamental nature. This may suggest intended re-reading of the poem, as suggested by Schiesaro: a return to basics as we arrive at the end of the poem.[86]

The didactic outcome of these repetitions might be summarised well by the following passage from *DRN*, Book 6:

[85] The magnet was held by Thales (A1, A3 & A 22 = *DK* 1.11) to be animate; while Empedocles (A89 = *DK* 1.31) and Democritus (A165 = *DK* 2.68, in Alex. Aphr. *Quaest.* 2.23 [1.2.72.28]) explained the phenomenon through atomism before. See *DNP Magnet* (Hünemörder).
[86] See p. 97.

> Hoc genus in rebus firmandumst multa prius quam
> ipsius rei rationem reddere possis,
> et nimium longis ambagibus est adeundum;
> quo magis attentas auris animumque reposco. (6.917-20)

Here, before explaining the mechanism of the magnet, Lucretius acknowledges with extreme self-consciousness that in these matters, principles must first be established before reasons may be given. He also says that one must go around by long ways, and asks accordingly for great attention to be given to his poem by the reader. It is notable that he might say this at a point so close to the end of the poem: perhaps another indication of the supposition that *DRN* might be re-read. The passage is evidence that Lucretius understands that foundations must be laid before more complex theories are explained and illustrated.

I hope to have shown by numerous examples, using the case of *sponte sua*, that such cumulative argumentative strategy is indeed what Lucretius achieves throughout his poem. The effect is remarkably subtle, and depends on signposts or verbal markers to highlight the many connections between various arguments. The verbal and argumentative similarities open up a network, and they are too numerous to mention them all. I have aimed nonetheless to illustrate the Lucretian didactic strategy whereby Lucretius uses more basic arguments to convey more complicated ones. I also wanted to show the way in which the various verbal and argumentative echoes found in these complicated arguments in turn stress the basic premises which Lucretius has already stated.

4.3 Self-Conscious Learning

> '…didactic poetry—this marginalized and supposedly 'unpoetic' genre—is in fact especially self-consciously 'poetic'. Didactic poems typically present themselves explicitly as poetry and often show a high degree of metapoetic reflection.'
>
> Katharina Volk (2002), 2-3.

Katharina Volk proposes the idea that some poems, especially didactic ones, exhibit self-consciousness and cast themselves explicitly as poetry.[87] I would like to supplement this with the notion that in *DRN* there is also a self-conscious *learner*.[88] To put it in general terms, as the reader advances within *DRN*, she is made aware of her progress. Presumably this strategy of creating awareness in the reader's mind of her own progress is to didactic (and rhetorical) ends: if she conceives of her own improvement, the reader is more likely to continue to wish to learn, and so to continue reading the poem.

Self-consciousness of the reader is ultimately impossible to definitively pinpoint, given the obvious fact of the reader's subjectivity and individuality, and also that the imagined addressee is a creation by Lucretius and so her thoughts and intentions are impossible to discover. But through repetitions (or repetition combined with absence of an expected (associated) repetition) I suggest that a kind of self-consciousness in the reader can be perceived. This particular type of repetition may seem to show the different contexts as contradictory, which might mislead and even confuse the reader.

[87] Volk (2002), 2-3, 6-10, 75-6, and 84-93. Cf. Reinhardt (2008b), 199-218 on the concept of self-consciously rhetorical character in poetry.

[88] I consider Lucretius to have considered numerous anonymous addressees, an idea in keeping with his mission. As well as Lucretius' clearly genuine aim of teaching (see Effe (1977), 66-79 and Lucretius as the 'sachbezogener Typ': a teacher genuinely wishing to convey what he professes to wish to teach) combined with reasons of rhetoric and persuasion (one is more likely to be persuaded if he believes himself to be feasibly the addressee of the poem; this is more likely if the addresssee is for the most part at least, nameless), my other reason for believing in a generic addressee in *DRN* is the comparison between the number of mentions of Memmius (11) versus the countless generalised second-person addresses. To me it seems more probable and persuasive that Lucretius intended a more general addressee for his poem. For a different view see Volk (2002), 74-5 who argues sensibly for seeing Memmius in all second-person singular addresses. Cf. Townend (1978) who believes that Memmius 'fades' as *DRN* progresses to reveal an increasingly impersonal addressee. I agree with Mitsis' (1993) idea of didactic coercion, but do not think that an external reader necessarily needs to believe that the internal addressee is specifically Memmius in order to wish to align herself with the teacher rather than the rather dim internal (author-created) reader. On this briefly see Volk (2002), 81.

But I propose that this is actually a purposeful, complex, rhetorical and didactic strategy, whereby the reader learns that she was in fact mistaken in her prior belief, whatever that may be, and that now at this point in time, at this point of reading the poem, she knows the truth: she knows the *rerum natura*.[89] The arguments of the poem reflect and are aligned with, or predict and determine, the reader's mind at the time of reading. This strategy may be defined as either misleading, or manipulation, of the reader.[90]

4.3.1 Replacing the Divine

The first line of the poem contains the formulaic phrase *hominum divomque voluptas* (1.1). This phrase famously describes Venus, who apparently fulfils the role of 'muse', at least at the start of the poem. Much scholarly work has been done on the proem to *De Rerum Natura*, and the fact that, in place of an invocation to the poet's muse, Lucretius (who as an Epicurean should not believe in divine intervention) chooses to call on Venus at the opening of his poem. It is enough to say here that for Lucretius, Venus is a suitable muse since in one respect she represents the Epicurean principle of pleasure, and it is pleasure—the prospective Epicurean pleasure of the reader—which is his objective.[91] Later, Lucretius will tell us too that it is the 'hoped-for pleasure' of *suavis* friendship with Memmius (and perhaps that of the more general reader) which drives him to write his poem late into the night:[92]

> sed tua me virtus tamen et sperata voluptas
> suavis amicitiae quemvis efferre laborem
> suadet… (1.140-2)

[89] Mansfeld (1995).
[90] The use of manipulation here indicates again the proximity of didactic aims in Lucretius to rhetorical ones.
[91] This idea is complicated however by the proem's hymnic style, which means that Venus in that respect may not be a muse.
[92] For *suavis* and/ or *dulcis* as a sort of verbal marker for Epicurean pleasure, see e.g. the proem to Book 2.

This tells us that it is *voluptas* itself which is his inspiration. A personification of that concept is therefore the ideal muse.[93] But there is an added dimension. Venus is also the traditional goddess of mythology, and the first two words of the poem define her as the mother of Aeneas and his offspring (*Aeneadum genetrix*). The two epithets (*Aeneadum genetrix, hominum divomque voluptas*) divide the two facets of Lucretius' Venus clearly: she is both the traditional god whom the Roman reader knows well, and a more specialised character particular to Lucretius' message. One could even go so far as to suggest that although the first impression the reader might gain of Venus is that she is intended as the traditional deity known from myth, in truth, the apparently secondary meaning (of the principle of *voluptas*) is the primary one, and possibly the only interpretation Lucretius intends in the end.[94] Lucretius shows the reader one thing at first, a more comfortable truth, and yet subsequently reveals to the reader the actual, less comfortable truth.[95]

The phrase *hominum divomque voluptas* is Ennian (*divomque hominumque pater, rex* (*Ann.* 591[96])), though originally Homeric (πατὴρ ἀνδρῶν τε θεῶν τε (*Il*. 1.554[97])). Lucretius transforms the description of Zeus (in Homer) or Jupiter (in Ennius) into a depiction not of the father of men and gods, but of the mother, *genetrix* (1.1) of Aeneas and his people, and the pleasure, *voluptas*, of men and gods. The phrase *hominum divomque voluptas* is not seen again until Book 6's proem, at 6.94, where

[93] For an instructive exploration of what it means to be a muse, see Spentzou (2002), 1-28 but esp. the introductory pages at 1-3 for the muse's Hesiodic origins. On further, secularising, dimensions to later writers' muses, see the full chapter and esp. 5-10. The thoughts, 15-16, on Catullus' rendering the muses' divine inspiration redundant, are particularly striking.
[94] But does Fowler (2002), 147-8 hint at subversive language in the proem to *DRN*, when he claims that 'the language of internal revolt and external influence easily mingle…. The poet… is on one level inspired from outside by Dionysus and the Muses, but the *laudis spes*... which strikes the poet is also an internal drive'?
[95] I argue this is precisely how Lucretius at times uses repetitions and internal allusions. Mansfeld's (1995) concept of insight by hindsight is compatible with this, and informative here.
[96] Var. *L*. 5.65.
[97] Cf. Hom. *Il*. 4.68, 5.426, 8.49, 8.132, 11.182, 15.12, 15.47, 16.458, 20.56, 22.167, 24.103; *Od*. 1.28, 12.445, 18.137. There are four times as many occurrences of the formula in *Il.* as in *Od.*. Cf. Hes. *Th*. 47: Ζῆνα θεῶν πατέρ' ἠδὲ καὶ ἀνδρῶν.

Lucretius uses it not of Venus but of Calliope, who is in fact a muse.[98] The relationship is complicated. First, though Venus is called the 'delight of men and gods', this description is followed as I have mentioned in Chapter 1 and explored at length in 2.3.2, by the famous statement of the god's apathy (1.44-9), which complicates the first 43 verses of *DRN*.

Moreover, the repetition of the divine description in Book 6 occurs where Lucretius asks the clever muse Calliope to show him the way to the 'finish line' of his poem, but this follows a similar statement of divine lack of concern at 6.68-78.[99] The address to Calliope also comes directly after a statement of the importance of understanding the *ratio caeli*, at 6.80-91, which can easily be seen, given, for example, Lucretius' statement at 5.1204-17 which claims that a reason for religious adherence is ignorance as to the *ratio caeli*. Calliope is *callida* (6.93), so one might suggest that the intellect has, at this point, firmly replaced the gods or the ignorance which leads to belief in their existence, just as Calliope has literally replaced Venus in the text. The 'answer' to the questions posed in the proem to the work as a whole is supplied at last by the proem to the final book.[100] Pleasure (Venus, *voluptas*) is the starting point and *telos* which convinces the student to study Epicurean philosophy in the first place, while Calliope's *ratio* is the outcome.[101] A *palingenesis* is believeable here since *ratio* would be followed by *voluptas* or *ataraxia* on beginning *DRN* again.

[98] Volk (2002), 84-5 notes the repetition, and suggests that the duplication may be down to emulation of Empedocles.

[99] At 6.43-78 Lucretius gives his intention to rationalise the phenomena of the skies, explaining this syllabus by complaining that mankind ascribes these to the gods. He rejects the traditional view of the active and wrathful god. 6.58-66 are repeated from 5.82-90, where Lucretius again justifies his upcoming lessons on the skies.

[100] There is something to be said for a reading which suggests that the duplication of *hominum divomque voluptas* in the proems of the first and final books of *DRN* (and not only that, but the very first line of the poem) means that there is a connection back to the very start of the poem, and this idea might support, and be supported by, Schiesaro's *palingenesis* theory, for which see above, p. 97.

[101] Re-reading the poem might make clearer this connection between the aim of Epicurean pleasure and the means by which it can be achieved: rationality. This rationality can only be achieved once the reader has learned all she can from the poem, and so only in returning to the start of the poem does *voluptas* mean something new for the reader: on her second reading, *voluptas* is something she has attained, or is at least closer to attaining it than on her first reading when pleasure and peace were distant hopes.

The two are linked in sequence and in the Epicurean, ataraxic mind. This balance also defends the idea of Venus' muse-like role in Book 1, but can also defend the notion that Venus is merely a metaphor for a number of things, including the *voluptas* which is achieved by attaining *ataraxia*.

We see a similar application of repetition with the phrase *in luminis oras*, seen four times in the poem, twice each in the first and fifth books (1.22, 1.179, 5.224, and 5.781). Each time the phrase occurs, it comes in the context of the creation or birth of living things. Lucretius uses internal allusion to counter a claim of divine power made early in the poem, in the hymn to Venus. Again, we find that the divine is replaced by the human, and the symbolism of Venus is implied.

This first instance of *in luminis oras* appears where Lucretius adresses Venus with the statement that without her, nothing could be born into the boundaries of light:[102]

> Quae quoniam rerum naturam sola gubernas,
> nec sine te quicquam dias in luminis oras
> exoritur neque fit laetum neque amabile quicquam,
> te sociam studeo scribendis versibus esse
> quos ego de rerum natura pangere conor
> Memmiadae nostro, quem tu, dea, tempore in omni
> omnibus ornatum voluisti excellere rebus.
> quo magis aeternum da dictis, diva, leporem. (1.21-8)

But the occurrence of the phrase at 1.179 directly contradicts this earlier address to Venus. This second occurrence of *in luminis oras* comes as part of an argument against the fundamental proposal that something can arise from nothing. In arguing that nothing can come from nothing, Lucretius directly contradicts his previously stated idea that a divinity is responsible for creation. Moreover, shortly before the second instance of the phrase at 1.179, Lucretius uses the statement that nothing arises

[102] See above, pp. 223-4, for brief discussion of the role of Venus. If one believes that Venus solely represents Epicurean pleasure (for which view see Gale (1994a), 68), then this repetition would not be in contradiction with the other instances of the phrase. However, to different readers (and readers at different stages of reading Lucretius) the understanding of Venus would of course be different. The 'elementary' student of Epicureanism would see Venus as the traditional Venus of myth; the student who is not on their first reading of *DRN*, or the Epicurean reader, might see both Venuses: the mythological Venus and the Venus who is the deification of pleasure.

ex nihilo to reject the idea of divine creation directly, at 1.150. Whereas at 1.22 Venus is the agent of the births of new creatures, at 1.179, it is the earth, *tellus*, who brings the living things into the regions of light.

The third instance of the phrase also expressly contradicts the notion that responsibility for the origins of living things belongs to a god: it is *natura* who causes the baby to be born from his mother's womb *in luminis oras* (5.224-5). After rejection of the claim of divine power early in the poem, the reader is allowed to build on the knowledge she has now gained—that life is in fact due to *natura* and that living things come from the earth or their mothers, not 'from nothing'.[103] They are not created *divinitus* (1.150). There is also a kind of simple 'emphatic' repetition in evidence here: the idea that nothing is divinely created is plainly emphasised again and again.

At 5.780 the phrase picks up the same theme of rejecting an idea of active divinity. Lucretius again stresses natural origins, where he describes how living beings come into the *luminis orae*. The earth (*mollia terrae | arva* (5.780-1)) is named as elsewhere as the 'mother' of new-borns.

Venus' prominence at the start of the poem does not make it difficult to see that she is conspicuously absent at each subsequent mention of the boundaries of light. This idea, that her subsequent omission is striking—particularly because of the prominent initial position of Venus—is validated by pedagogical research which finds that when a learner builds associations, it does not much matter whether or not all parts of the association—the associated word, phrase, or idea—occur again later: it is present in the learner's mind from this point on when one part of the association appears.[104] One might reasonably wonder whether one instance of Venus with the

[103] See again Mansfeld (1995).
[104] This is an effect comparable to what is known as 'priming', where exposure to one stimulus implicitly affects the participant's response to a different stimulus; see Meyer and Schvaneveldt (1971) and (1973). One might also compare the phenomenon witnessed in early-language acquisition where

phrase *in luminis oras* is enough for a reader to build an association. To this I would respond first that, as I state in my methodology, if it seems striking to a reader (in this case me), it is not unreasonable to suppose that the effect was noticed, even intended, by Lucretius. Certainly the remarkably beautiful verse at this point is memorable in itself. Secondly, associations with divinity have already been built because the phrase is Ennian.[105] Lucretius uses the divine pedigree of the phrase, and of Ennian verse and ideology in general, to introduce it as one thing, and turn it into something else quite close to the start of his poem.

After the initial mention of the phrase *in luminis oras*, Lucretius plainly undermines this misleading statement of divine responsibility. It is replaced by rational theories of birth at each subsequent mention of the phrase, and the verbal repetition draws attention to the direct and explicit contradiction of the beginning of the poem. The reader is invited to be aware of her errors and of her growing faculties in applying rationality in the 'correct' way. She is shown the error of her ways in believing the original statement and the 'right' answer is emphasised. At the same time, the original, 'erroneous', statement is proved emphatically to be so.

4.3.2 Acquiring *Ataraxia* or: Being Responsible for Your Own Happiness

Tracing the instances of the phrase *aequo animo* in *DRN* can reveal reflection of the reader's level of knowledge at a given point of the poem. At 1.42 Lucretius appeals to

---

adults repeat words, phrases, and sentences, but in their repetitions also add new information; a kind of correction by the building of associations (Clark and Bernicot (2008), 349-71. On making associations for memory, see too Arist. *Mem.* 452a: τοῦ δ' ἀπὸ τοῦ αὐτοῦ ἐνίοτε μὲν μνησθῆναι, ἐνίοτε δὲ μή, αἴτιον ὅτι ἐπὶ πλείω ἐνδέχεται κινηθῆναι ἀπὸ τῆς αὐτῆς ἀρχῆς, οἷον ἀπὸ τοῦ Γ ἐπὶ τὸ Β ἢ τὸ Δ. ἐὰν οὖν διὰ πολλοῦ κινηθῇ, ἐπὶ τὸ συνηθέστερον κινεῖται· ὥσπερ γὰρ φύσις ἤδη τὸ ἔθος. διὸ ἃ πολλάκις ἐννοοῦμεν, ταχὺ ἀναμιμνησκόμεθα·

[105] 1.109 (*intra luminis oras*) where, according to Skutsch (1985), on 1.105-9, the context is not the address of a god, strictly speaking, but that the passage precedes Romulus' deification. Cf. 2.135.

a god (Venus) for an *aequus animus*.[106] The next time the phrase appears at 3.939, man himself is solely responsible for his 'evenness' of mind, and a personification of nature rebukes the man who does not possess equanimity. Similarly, at 3.962, nature personified reprimands an old man for his fear of death. Each occurrence of the phrase in Book 3 appears where Nature upbraids a character mourning his or her future death, and urges the (imagined) person to instead possess a 'balanced mind' and to use rationality to accept death without distress. The reader, we are led to believe, achieves *ataraxia*, or is responsible for achieving *ataraxia*, herself. She does not receive any divine assistance.

The phrase occurs again for a fourth and final time in Book 5, at 5.1119, where Lucretius leads the reader to question the notion of valuing gold and wealth more highly than beauty and strength.[107] Lucretius suggests that if one governed one's life by *vera ratio* then he or she would have an *aequus animus* even if he or she possessed little. There is a connection here to Book 3. The point Lucretius makes at this point in Book 5 is that one requires *vera ratio* in order to be content with few possessions. At 3.931-77, Lucretius argues that one should be content with little of life. The broader argument made at 5.1105-35, through allusion to the earlier passage, is that only an *aequus animus* can allow man to be satisfied with little, be it little of life or little of possessions.

The repetition signals the connection between the two passages, and so allows the reader to build on the earlier argument about not fearing death, to apply it more directly to her life: to defeat ambition (5.1105-35, especially 5.1131-5). This is the kind of application of earlier arguments to later ones which I discuss above (Section 4.2), and which shows how cumulative the poem is in its lessons.

[106] Surely a translation, as I say above, for the Greek *ataraxia*.
[107] The full context is at 5.1105-35.

In some sense, the signalling of the argumentative connection means that the repetition actually *creates* the argumentative connection in the reader's mind; verbal repetitions are crucial if the reader is to understand the argument. But the repetition is also performing in another way. Where we see the phrase *aequo animo* in Book 1 it is made clear that Venus will grant this equanimity, while in the following three instances of the phrase, responsibility for calmness of mind clearly belongs to man himself, and is emphatically nothing to do with a deity. Venus' responsibility for happiness is proved rapidly to be mythical, and the repetition of the phrase meaning *ataraxia* not only highlights the difference between the worldview apparently promoted at 1.42 (and in the proem in general) and the view expounded later in the poem (in Books 3 and 5), but also emphasises the correctness of the later lessons, in which Lucretius makes it clear that one is responsible for one's own tranquility.[108]

4.3.3 Reader's Progress

Twice the phrase *moenia mundi* is found in a context where knowledge is used to disturb or cross the 'walls of the world'. The repetition can draw the reader's attention to a gradual change in her own progress as she makes her way through the poem. This indicates not only the authorial self-consciousness Volk sees in didactic poems, but also the additional readerly self-consciousness which I suggest is a feature in Lucretius.[109]

Where in Book 1 it is Epicurus who 'proceeds far beyond' the *moenia* (1.72-73) by Book 5 we have *eos...qui*, 'those who' (that is, those who readers afraid of blasphemy

[108] Again, absence of the deity perhaps reflects absence of the reader's dependence on the gods.
[109] The repetition of *moenia mundi* has different significances depending on the context. It can also be used in two situations: where Lucretius discusses a scientific principle (1.1102, 2.1045, 2.1144, 5.371, 5.454, 5.1213, 6.123), and where he metapoetically implies the *importance* of the science (1.73, 3.16, 5.119, 5.1213 (NB 5.1213 in both categories)). I believe that the point of these verbal allusions is to unite physics and the usefulness or importance of physics.

perceive to be committing such blasphemy (that is, the Epicureans)) 'disturb' them (5.118-119).[110] What is more, the verbs used have altered from one mention of the *moenia* to another, signifying that by Book 5, the challenge to the *status quo* is strengthened: Lucretius no longer discusses someone who 'proceeds far beyond' the *moenia* (*extra processit longe...moenia mundi* (1.72-73)): now such challenges 'disturb them': *ratione sua disturbent moenia mundi* (5.119).

There is a strong connection between *effringere ut... cupiret* at 1.70-1 and the use of *disturbare* at 5.119. In these contexts, *moenia mundi* may signify the boundaries of accepted knowledge. At the start of *DRN* Epicurus wished to 'break' the *moenia*; towards the end, and specifically by Book 5, this disturbance and destruction of the *moenia* is actually happening, but the agency has been transferred to the reader: the connection may illustrate the growing proximity between Epicurus' understanding of the world and the reader's own.

One can go further and suggest that as well as boundaries of knowledge, the *moenia* also represent the boundaries of human life: where *moenia mundi* is used of Epicurus, he might be considered as having ascended beyond the status of a mortal and is now a god, given his attainment of *ataraxia*.[111] The reason the reader of *DRN* might fear being suspected of blasphemy in the passage at 5.110-25 is not as Lucretius postures, because she is claiming that, or at least learning that, the world is susceptible to death. The real reason she is afraid because she is encroaching, she (wrongly) feels, upon the territory of the gods in approaching the happiness brought by *ataraxia*.

[110] The commentators do not remark upon the potential significance of the repetition of the phrase. Costa (1989), on 5.119 does remark upon the connection to 1.72-3. Munro (1866[4]), Bailey (1947), Duff (1923), and Gale (2009) all focus on the scientific meaning of the phrase. Lachmann (1850) does not mention either instance of the phrase. Wills (1996) does not mention the repeated phrase.
[111] See p. 148, fn. 21.

By the end of Book 5, it is the reader herself who is approaching *ataraxia*; the increasing vividness of the verbs can be seen as illustrative of the increasing reality of the *ataraxia* as it transforms from something which is discussed in the text, and which belongs to the almost mythical figure of Epicurus, into something attainable for the reader herself in the real world.[112] Intratextual connection makes this progress clear to the reader.

4.3.4 Didactic Coercion[113]

I have discussed the recurrence of the phrase *in luminis oras* in detail above. I shall mention it here too (though more briefly), since it includes, along with repetition, significant omission of repetition.

The presence of Venus in the proem to *DRN* and at the point of the first instance of *in luminis oras* is obvious. Yet her absence in the three occurrences of the phrase which follow is marked. The repetition of *in luminis oras* which I discuss above may be qualified both as a repetition, but also as an omission of a repetition, since Venus is plainly excluded in subsequent iterations of the phrase. Suffice it to say here that the absence of Venus in the text after the first instance of the phrase represents the absence of the gods in the world which Lucretius describes, but this absence also represents and illustrates (or perhaps presumes and presupposes) the absence of divine power in the worldview of the reader.

---

[112] This is reminiscent of the metaleptic function of repeated 'place-markers' which I talk about above, 3.4. Also evident in these same two passages is a repetition of *vis animi* (at 1.72 and 5.134 respectively). In the passage from Book 1, at lines 62-79, *vis animi* appears in the text after *animi virtutem*. There appears to be a verbal and aural play here, which draws the ideas together. The first *vis animi* discusses Epicurus' force of mind as it prevails and travels over the *moenia mundi*. The second points to the impossibility of *animi natura* occurring *sine corpore* (5.132-133), concluding that if this *could* happen, then the *vis animi* would be able to reside in the heels, for example (see 5.134-137). This is a good example of an accumulation of understanding of *rerum natura*: at the stage in question at Book 1, Lucretius advocates the strength of mind of his teacher, and thus the reliability of what will follow, while at Book 5 he reiterates the idea seen already in Book 3, that the soul or mind cannot exist without a body, and therefore that the notion of a 'world soul' is inherently flawed.

[113] I borrow the term from Mitsis (1993).

Lucretius predicts or presumes the contents of the reader's mind in suggesting an absence of the gods while discussing the birth of living things. This is compatible with Mitsis' idea of 'didactic 'coercion'. Mitsis suggests that Lucretius 'coerces' the reader into alignment with Lucretius himself rather than think of herself as a naïve, ignorant child. Such prediction of the reader's mind as I describe here might be framed as a kind of manipulation, so one might view it as a variation on coercion.[114]

Given the reappearance of a significant formulaic phrase (*in luminis oras*), and one which would be known to readers of Ennius, the lack of a mention of Venus at a point in the text where she might easily be expected to appear by such a reader may easily be seen to be purposeful as well as meaningful.

One sees a markedly similar technique of coercive repetition when considering the duplication, which occurs only in Book 1, of the phrase *tempore iniquo* (at 1.41 and 1.183). The first mention of the phrase forms part of Lucretius' appeal to a god, and, like the repetition of *in luminis oras*, is part of a direct address to Venus. *tempore iniquo* appears as part of (and in fact towards the end of) an appeal to Venus to bestow peace on the world (*Effice ut interea fera moenera militiai | per maria ac terras omnis sopita quiescant* (1.29-30)). A god's power over the state of the world and more specifically over man's affairs in war is clearly implied.[115]

Setting aside the controversial repeated passage which follows at 1.44-9, which states explicitly the apathy of the gods, and which would contradict directly the previous request to Venus for anything (including the peace requested at 1.29-43) (see my discussion above, 2.3.2), the repetition of a phrase which occurs just twice in the poem is likely to be significant.[116] The god's obvious removal at the second instance

[114] Mitsis (1993). NB here again indication of the closeness of rhetoric to didactic.
[115] Also interesting is the fact that it is peace which Lucretius asks the god for, which, as a state of mind, he will subsequently argue is the responsibility of a man himself.
[116] See my methodology for more on rarity and significance of allusion.

of *tempore iniquo* makes this more likely. At 1.183, the meaning of the phrase has shifted so that there is a whole new significance: here, Lucretius discusses (in)appropriateness of time and season, in a passage where trial and error is discussed. More specifically, it is at this point that Lucretius argues forcefully that nothing can be created from nothing. He explicitly removes the power from the gods in his statement at 1.150 that *nullam rem e nilo gigni divinitus umquam* (to which a remarkable number of later arguments return or are connected). He goes on to tell the reader of the importance of this principle, since it is from this that one may understand *quo quaeque modo fiant opera sine divom* (1.158).

The repetition of *iniquo tempore* is part of the argument against divine involvement in the world. The obvious absence of Venus, or any deity, from this passage, as well as her absence even in considering the birth of things, is made more obvious by the repeated phrase.

A focus on natural births from a source such as a seed or womb (at 1.179 and 5.224-5) may lead the reader to recall the births at the start of the poem which are attributed to Venus' work. The proem, indeed, begins with a heavy focus on Venus' generative powers: she is characterised as the generative principle (*per te quoniam genus omne animantum | concipitur visitque exortum lumina solis* (1.4-5)). The repetitions, and crucially, the absence of the mention of a divinity, undermine the initial statement of the gods' ultimate power.

Repetitions and absences of repetitions can be used to reveal to the reader her own earlier ignorance, and current level of rationality. Thus her progress is shown and she is made self-conscious.

4.4 Conclusion

In this chapter I wanted to show the varied outcomes of repetition in Lucretius which are specifically didactic. I explored three types of didactic repetition. The first is simple repetition for emphasis; this strategy has obvious didactic benefits: the repetition of an idea can 'hammer in' an important point, and so help to make an argument more convincing through placing stress on a given premise.[117] The repetition of basic arguments or premises for arguments also encourages the reader to think of them as 'common ground' or makes them commonplace or accepted. As a consequence the reader is induced to make more room in her mind for different, new, possibly more complex ideas. This can happen on a simple level of emphasis, and a more complex level of drawing together more than one (apparently unrelated) argument; this outcome is especially common where the 'emphatic' repetitions occur at a greater distance from each other.

The second broad type of didactic repetition or internal allusion is a more complex strategy which involves verbal repetitions acting as markers to connect different arguments. The arguments might variously be clearly linked in subject matter and argument, or else appear to discuss quite different subjects. In either case, I propose that verbal repetitions cause the reader to remember an earlier passage (even anticipate a later one, if she is re-reading the poem). Moreover, when remembering the earlier argument, the meaning of the later one is altered: the intended argument is revealed through this cumulative reading of the poem and its arguments. This type of repetition consists essentially of the application of earlier arguments (which are usually also simpler) to later, often more complex ones, in a way in which the

[117] See fn. 5, p. 182.

argument makes much more sense than if both passages were seen in isolation. I argue that these repetitions are crucial to understanding the arguments in the poem.

The third kind of repetition or internal allusion reveals the extreme self-consciousness of *DRN*. I supplement Volk's idea that didactic texts exhibit authorial self-consciousness with evidence of self-consciousness of the imagined reader in *DRN*. Through repetition, Lucretius brings into sharp relief differences between statements made earlier in the poem, and later 'correct' statements. In so doing, he allows the reader to understand the extent of her previous misinformation, and consequently how far she has come in her learning. This strategy ultimately persuades the student to continue with the lessons of *DRN* and Epicureanism. This persuasion is closely connected to Lucretius' rhetorical strategy. Throughout the chapter I indicate the close relationship between rhetoric and didactic. I subscribe to Classen's idea that for Lucretius, everything is in a sense rhetorical: he places persuasion of the reader above all other concerns. Repetition for Lucretius is about more than mere teaching: though it may appear on the surface to merely 'hammer in' facts, it is also another way to coerce, to manipulate, to conquer the audience. With benevolent aims, of course.

5

Atomistic Imagery: repetition and reflection of the world in the text

> 'It seems... that there is nothing, either in the Epicurean theory of language or in the way in which Lucretius employs the analogy between atoms and letters of the alphabet, to justify belief in an 'atomistic doctrine of language,' if the phrase is anything more than a pretentious way of stating the obvious. There are more convincing explanations for the poet's interest in puns and etymologies. It is a persistent fault of academic criticism to take too intellectual a view of poetry, to see it as a complex network of conscious systems and structures.'
>
> Alexander Dalzell (1980), 28.

> Imitetur ars igitur naturam, et quod ea desiderat id inveniat, quod ostendit sequatur.
>
> *Rhet. ad Her.* 3.22.35

It is generally accepted that Lucretius is fond of wordplay and will use it to his argumentative advantage.[1] Scholars often invoke the famous analogy of letters and atoms found at 1.897-914 and elsewhere in the poem, in an effort to substantiate their arguments about wordplay with claims from the poet himself.[2] Lucretius tells us in the analogy that rearrangements of similar individual letters make up different words just as similar atoms rearranged in different configurations create different substances. It is important for this chapter to emphasise that the major argument of the analogy is that base substances (or letters) have the potential to create many different end-products (or different words). In his article of 1941 Friedländer suggests through several close readings that Lucretius' use of language can reflect his atomistic vision of the world. The article was met with criticism some forty years later by Dalzell, though the scholarship on the whole accepts Friedländer's case.[3] Yet Dalzell's article

[1] Proponents of Lucretius' fondness of wordplay include Deutsch (1939), Friedländer (1941), Snyder (1980), and Hinds (1987). All argue that the wordplay is purposeful and meaningful. For the opposite view see Dalzell (1987). Kennedy (2007) bases his investigation in part on Friedländer's article.

[2] Also found at: 1.196-8; 1.814-29; 2.688-99; and 2.1013-22. For the etymology of *elementum* see Ernout-Meillet s.v..

[3] While Dalzell (1987) adopts what is arguably sensible caution in adopting the theory of atomistic language which Friedländer proposes, he places too much emphasis in my view on the passages which contain explicit references to the analogy between letters and atoms. Dalzell, 21, presents Friedländer

raises some important questions about the letters-atoms analogy, which have not been answered: what precisely does it mean? Is Friedländer's thesis accurate, or at least helpful? How far does the analogy extend?

Strategies of wordplay in *DRN* have not yet been explicitly considered together with or as part of a wider strategy of repetition and internal allusion. I suggest that repetition can be integrated with existing scholarship on strategies of analogy and wordplay in *DRN*.[4] By studying the connections between the different instances of the *elementa* analogy, and also intratextual connections and repetitions in *DRN* in general while keeping the analogy in mind, we might better understand the analogy as well as Lucretius' use of language more generally. This should even help us to grasp more fully the message of *DRN*.

This chapter will explore a significant, yet neglected aspect of both Lucretian wordplay and Lucretian repetition: the use of repetition as part of a systematic attempt to convey the reality of the world through his text.[5] I suggest that there may be more to the analogy of letters and atoms than we have so far supposed, and attempt to supplement Friedländer's findings. If examination of the analogy is combined with an understanding of Lucretius' repetition as meaningful strategy, we may achieve a

---

as having argued for 'a logical relationship between words composed of similar elements'. But Friedländer does not say this: he suggests that the way Lucretius uses words seems to be part of an effort by Lucretius to reflect the reality of what he describes. Dalzell actually unwittingly defends an argument in favour of Lucretius' atomistic approach to language: he says it himself at p.21: 'Atoms combine and recombine in different patterns, just as the letters of the alphabet can be rearranged in different patterns to form different words.'

[4] On analogy see Schiesaro (1990); Schrijvers (2007), 255-88; Lehoux (2013), 131-51. Lehoux (2013), 132 points out that the senses must be used to illustrate the fact that they themselves senses cannot fully capture or illustrate what happens on an atomic level. On the other hand they also are used to understand the nature of certain unseen phenomena.

[5] Volk (2002), 100-1 has already noted the self-referential aspects to the analogy (*nostris in versibus ipsis* at 1.823, 2.688, 2.1013), and that it may be extended to apply not only to letters of the alphabet, but to the poem as a whole. One might say that studies on analogy, of which there are several comprehensive ones, have at times mentioned passages which allude to one another, e.g. Schrijvers (2007). However, repetition as a strategy in itself has been neglected. Since the publication of Friedländer's article, further study on atomistic language has been minimal (but see Dalzell (1980) and Snyder (1980)), and as I describe in the Introduction, literary, didactic repetition in Lucretius has not to date been the subject of any major study.

greater appreciation of an important way in which Lucretius paints a picture of the world in *DRN*.[6]

The chapter begins with a close look at the *elementa* analogy, to see if we can make more sense of this concept by examining Lucretius' explicit statements about his use of language (5.1). Looking at the allusions between various appearances of the analogy will show in itself that what is proposed in the analogy may actually be seen in the text through repetition and reapplication of statements at different points in the poem. Then, in 5.2, the chapter will look at other ways in which the atomistic structure of the world is reflected in *DRN*, especially through the representation of 'fundamentals' in the poem: by the choice naming of the elementary particles in *DRN*, and by argumentative structure. I have already shown (in 4.2) that Lucretius' assertions, hypotheses, and arguments accumulate, beginning with basic premises, statements, or arguments, and building up to more sophisticated or difficult ones. This argumentative structure has much in common with, and may show conscious reflection of, Lucretius' theories about the atomistic structure of the world, according to which all things are ultimately made up of basic principles. This point, and the previous section (5.1) suggest that Lucretius' analogy between letters and atoms extends beyond the small-scale applications which have so far been seen in the scholarship on wordplay. Finally, the chapter will explore several examples from throughout *DRN* where one might see Lucretius' strategy of creating an image of the world in the text, in order to consider this idea as part of a general feature of *DRN* (5.3).

[6] I do not go so far as others such as Thury (1987), however, who propose that the text presents images which can be interpreted by the reader as *simulacra* can be, and must agree in general with Volk who points out difficulties with this approach at 103-4. I view the comparison with atoms and letters as an analogy, but still propose that the ideas it contains are spread through the poem. And this is not to say that Lucretius does not attempt to create vivid images for his reader, in order to render the strange atomistic world less strange (cf. Wardy (1998)). Moreover, the ideas advanced in this thesis may leave room for further study of the way images work in *DRN*.

5.1 'Atomic' Language

Friedländer draws our attention to the idea that Lucretius' language can illustrate his description of the world. But he concentrates on examples which indicate that similarities between words are reflected in reality (e.g. *ma**ter*** and ***ter**ra*),[7] while as Dalzell correctly points out this is not in fact what Lucretius conveys in his analogies: he is concerned with the diversity of the end-products.[8] But while Dalzell takes this as meaning that there is no connection between language and world in Lucretius, I think that it is not quite so simple. After all, even if *mater* and *terra* or *ignis* and *lignum* do unavoidably appear similar, we know that what they *represent* are vastly different and that therefore they themselves as words must also differ, even if they are made of almost identical *elementa*. The similarity in appearance of the words may even be justified by the fact that Lucretius himself tells us that there are, for example, seeds of heat in wood (1.901-3), if not fire.[9] This may also be a way of telling us that, just as in the text, so too in the world there can be similarities between products which are constructed of similar elements, as well as differences. For Lucretius, there is always an ultimate uniformity to the text, and the world, even when there are perceptible discrepancies. This will be seen further below.

I propose that Lucretius aims to mirror reality through his language, by showing that Lucretius does not only use smaller-scale wordplays such as *callida-Calliope*,[10] but that he applies his atomistic vision—seen in the *elementa* analogies—to the intellectual structure of the poem more broadly.

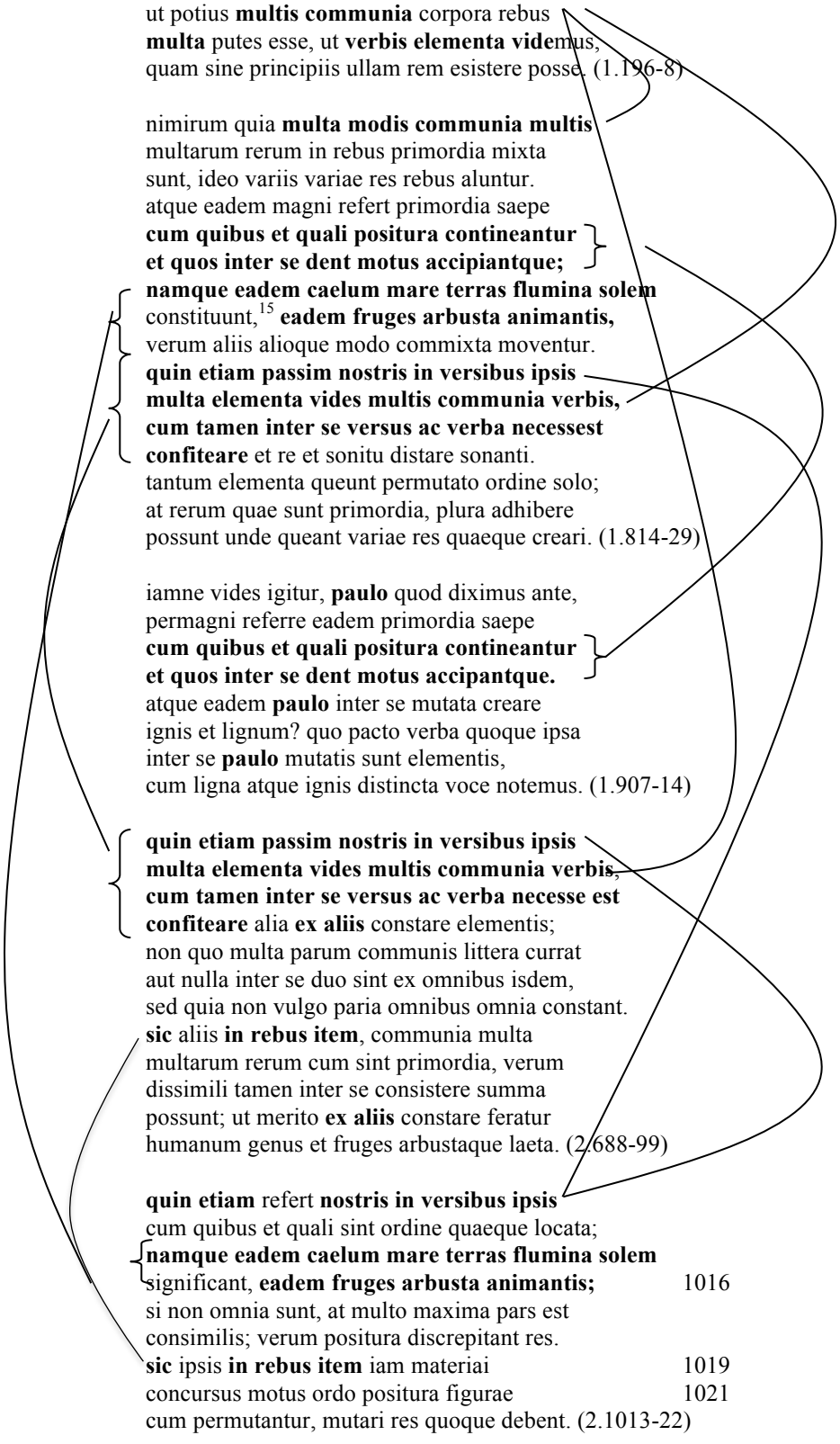
[7] Friedländer (1941), 20.
[8] Dalzell (1987), 21, 24, and *passim*. See also Volk (2002), 102.
[9] But in any case, a similarity of structure implied by linguistic similarity is hardly problematic, since for Lucretius, all things are made up of elements which are ultimately similar in the sense that they are fundamental particles.
[10] For which see Friedländer (1941), 20-1.

5.1.1 Arrangement and Order

As Lucretius tells us repeatedly, the order in which the first beginnings are placed is crucial to what is produced, just as order is crucial in language, morphology, and syntax.[11] The finite number of letters in the alphabet corresponds to the finite number of types of atoms (so it does not matter that the number of letters is finite, while the number of atoms is infinite). The finite elements of the alphabet can function as a sample of what happens when a supply of basic elements is recombined in different ways. The other crucial aspect to the *elementa* analogy is that a few similar components, when combined in different ways, can produce a great variety of things.[12] This may originate from the 'painter analogy' in Empedocles fragment 23 *DK*, in which Empedocles explains how painters, mixing various colours, more of some and less of others, produce shapes resembling all things.[13] So the order of elements (or letters) is important, and so is the fact that a great variety of products (or words or even statements or arguments) can be produced.

I propose that Lucretius has didactic and rhetorical reasons for his frequent repetition of the idea that atoms can compare to letters. As we already know, there has been surprisingly little scholarly attention given to repetitions in general: there has not yet been much attention paid to the reasons why Lucretius might have chosen to repeat the analogy, and in the way that he does.[14] A look at the passages will show the verbal similarities, repetitions, and allusions between all instances of the analogy:

[11] Volk (2002), 101. On variety of outcome, see Kyriakidis (2006), 606-7.
[12] Cf. Snyder (1980), 40-1.
[13] Fowler (2000), 148 points out the similarity.
[14] It is noticeable that scholars do not question the authenticity of these repetitions—and repetitions they are—presumably because they are not as exact as repetitions in other places in *DRN*, or because there are fewer problems of sense here than with other repetitions. This should cause some hesitation, if not scepticism, about an approach which would problematise some long repetitions (i.e. repetitions of whole verses, singular or multiple), but not others, simply because of readerly ease, or difficulty, of interpretation. There is also a methodological problem with repetitions in *DRN* where critics at times are more comfortable with exact repetitions, and at others prefer inexact repetitions.



ut potius **multis communia** corpora rebus
multa putes esse, ut **verbis elementa vide**mus,
quam sine principiis ullam rem esistere posse. (1.196-8)

nimirum quia **multa modis communia multis**
multarum rerum in rebus primordia mixta
sunt, ideo variis variae res rebus aluntur.
atque eadem magni refert primordia saepe
cum quibus et quali positura contineantur
et quos inter se dent motus accipiantque;
namque eadem caelum mare terras flumina solem
constituunt,[15] **eadem fruges arbusta animantis,**
verum aliis alioque modo commixta moventur.
quin etiam passim nostris in versibus ipsis
multa elementa vides multis communia verbis,
cum tamen inter se versus ac verba necessest
confiteare et re et sonitu distare sonanti.
tantum elementa queunt permutato ordine solo;
at rerum quae sunt primordia, plura adhibere
possunt unde queant variae res quaeque creari. (1.814-29)

iamne vides igitur, **paulo** quod diximus ante,
permagni referre eadem primordia saepe
cum quibus et quali positura contineantur
et quos inter se dent motus accipantque.
atque eadem **paulo** inter se mutata creare
ignis et lignum? quo pacto verba quoque ipsa
inter se **paulo** mutatis sunt elementis,
cum ligna atque ignis distincta voce notemus. (1.907-14)

quin etiam passim nostris in versibus ipsis
multa elementa vides multis communia verbis,
cum tamen inter se versus ac verba necesse est
confiteare alia **ex aliis** constare elementis;
non quo multa parum communis littera currat
aut nulla inter se duo sint ex omnibus isdem,
sed quia non vulgo paria omnibus omnia constant.
sic aliis **in rebus item**, communia multa
multarum rerum cum sint primordia, verum
dissimili tamen inter se consistere summa
possunt; ut merito **ex aliis** constare feratur
humanum genus et fruges arbustaque laeta. (2.688-99)

quin etiam refert **nostris in versibus ipsis**
cum quibus et quali sint ordine quaeque locata;
namque eadem caelum mare terras flumina solem
significant, **eadem fruges arbusta animantis;** 1016
si non omnia sunt, at multo maxima pars est
consimilis; verum positura discrepitant res.
sic ipsis **in rebus item** iam materiai 1019
concursus motus ordo positura figurae 1021
cum permutantur, mutari res quoque debent. (2.1013-22)

[15] Given the high rate of precise repetition in these lines, it is possible to advocate writing *constituunt* at 2.1016 in place of *significant* at 1.821. For further discussion of the matter see main text, below. In this case I leave the text as it is.

The verses are in fact much more complex than a simple illustration of the behaviour of atoms or letters of the alphabet, and, as Dalzell has shown through detailed exposition of the context of each passage, each occurs as part of a wider argument about the atomic makeup of the world.[16] What has not been examined is the relationship between the passages, and in turn the relationship between the *elementa* analogies and the wider messages of *DRN*.

There is evidently close connection between different appearances of the analogy. An initial impression leads one to ask: does Lucretius really mean what he says? Does the repetition of the verses so overtly and clearly in fact tell us what I stated a little earlier: that for him, even if he claims the diversity of product, in the end, there is always a unity, not only to his text, but crucially, to the universe. There will be more to say on this a little later. Pushing this idea to one side, let us explore how far the verses, taken at face-value, can apply to *DRN*.

One can perceive differences in the 'end-products' of the repetitions of the analogy, in which case Lucretius may be illustrating on a large-scale the application of his *elementa* analogy to *DRN*. Each analogy differs from the others in terms of its immediate argumentative context. The first appearance of the analogy (1.196-8) occurs as part of an assertion that the earth needs nourishment. The second at 1.814-29 makes a related, but still different, point, that specific things need specific nourishment. The third point where the analogy occurs at 1.907-14 is part of an assertion that seeds of all things are not inside all things: so seeds of fire are not in wood. The context of 2.688-99 explains how different shapes of atom affect the senses (such as smell and colour) differently, and the final instance at 2.1013-22 tells us that we are made from elements of the earth and the sky, and that life and death is

[16] Dalzell (1980), 20-4.

simply a cycle.[17] These propositions and assertions are outwardly very different in terms of argument. And of course linguistically, all instances of the analogy are different by virtue of simply *being* different in various ways, but also by their context. Still, it is unavoidable that the analogy is repeated, even if the wording differs. This brief argumentative summary makes an initial observation that the main assertion of the *elementa* analogy—that similar elements occuring in a different *ordo* can produce different outcomes—might indeed be reflected in Lucretius' language, and even in the very analogies themselves. Perception of the repetitions and internal allusions is crucial for understanding this. So, just as similar, but rearranged *elementa* can produce different substances, so similar and related instances of the analogy can contribute towards or produce varied arguments or statements. This suggests that the analogy can be applied on a larger scale than has so far been proposed.

But if one considers the broader arguments of each *elementa* analogy, one sees that ultimately there is a unity. All instances of the analogy revolve around fundamental particles and what everything, living or non-living, is made of. 1.196-8 centres on the concept that nothing comes from nothing, beginning at 1.150: *nullam rem e nilo gigni divinitus umquam*.[18] The next analogy (1.814-29) occurs as part of the general assertion that there are atoms and void (not four elements) (1.734-829 or in full 1.705-829), which is also in the end building on the notion that nothing can be produced from nothing, at 1.150-214 (which includes the first *elementa* analogy). At 1.705-829, Lucretius argues that the basis of things cannot be fire, air, water, or earth, or two of them, or four. He argues specifically that Empedocles, as one of the proponents of such a theory, was mistaken. Lucretius attributes the belief that things can come to nothing when destroyed, and therefore can be created from nothing, to those

[17] On this argument see below, Sections 5.1.3 and 5.1.3.1.
[18] This is a fundamental argument and one which Lucretius uses to build others on.

erroneously supposing that these 'elements' constitute the fundamental principles of our world. These people stray far from the truth (*quorum utrumque quid a vero iam distet habebis* (1.758)). This clearly refers back to the argument begun at 1.150 that nothing can be created *ex nihilo* in divine fashion. Arguments about nothing coming about *ex nihilo* are inextricably linked to suggestions of the nature of fundamental matter—about which the other *elementa* analogies revolve as we shall see—because if nothing comes about *ex nihilo*, the natural question which arises is 'from what are all things produced', or: 'what is/ are the fundamental particle(s)?'

The passage at 1.907-14 debunks the idea of *homoeomeria* (1.830-920), which refutation also indirectly reasserts the existence of atoms and void;[19] 2.688-99 are part of the broad thesis that nothing consists of only one kind of element (an assertion of atomic variety) (2.581-729); and 2.1013-22 occurs as part of the broad claim that atoms are inanimate and that even living things are built from the same things as non-living things (2.865-1022). This particular argument is important, and one we shall return to shortly, in 5.1.3 and 5.1.4.

We have seen that the narrow arguments surrounding the analogies are always diverse. This reflects precisely the point of the analogy. But I propose that broadly, there is order in amidst the apparent chaos. This is not only reflective of the poem, but also of Lucretius' vision of the world.

Some specific connections between the first two passages will help to illustrate more precisely this relationship between Lucretius' language and the atomistic world he depicts:

> Huc accedit uti sine certis imbribus anni
> laetificos nequeat fetus submittere tellus
> nec porro secreta cibo natura animantum
> propagare genus possit vitamque tueri;
> ut potius **multis communia** corpora **rebus**

[19] Dalzell (1980), 22 and see further below, 5.1.2.

multa putes esse, ut **verbis elementa videmus**,
quam sine principiis ullam rem esistere posse. (1.192-8)

nimirum quia **multa modis communia multis**
multarum rerum in **rebus** primordia mixta
sunt, ideo variis variae res rebus aluntur.
atque eadem magni refert primordia saepe
cum quibus et quali positura contineantur
et quos inter se dent motus accipiantque;
namque eadem caelum mare terras flumina solem
constituunt, eadem fruges arbusta animantis,
verum aliis alioque modo commixta moventur.
quin etiam passim nostris in versibus ipsis
multa elementa vides multis communia verbis,
cum tamen inter se versus ac verba necessest
confiteare et re et sonitu distare sonanti.
tantum elementa queunt permutato ordine solo;
at rerum quae sunt primordia, plura adhibere
possunt unde queant variae res quaeque creari. (1.814-29)

I have said that the first passage at 1.192-8 is part of the broad argument that nothing can be created from nothing, and comes as part of the statement that things need nourishment: the earth needs rain in order to produce fruits, and living things need food to stay alive. Therefore, Lucretius argues, many bodies are common to many things, just as letters are common to words. The logical progress of the argument that nothing can come from nothing to its conclusion that many bodies are common to many things is confusing, and as Dalzell points out, this will become clearer later in the poem.[20] For now it is enough to say, as may already be clear, that the notion of bodies common to many things is subtle reassertion of the atomic make-up (as opposed to theories of divine generation) at the foundation of every thing in our world.

The second instance of the analogy (1.814-29) also emphasises this idea, even if its immediate argumentative context is different, as we have already observed. It begins in a markedly similar way to the first passage's statement at 1.196-8, reasserting in almost exact duplication of the language there that many first beginnings are common

[20] Dalzell (1987), 20 thinks that 2.589-99 and 2.660-99 help make more sense of this argumentative progression. See below, 5.1.4.

to many things, much as letters of the alphabet are common to different words. This idea, and the notion that different products are nourished by different nourishments recalls the first *elementa* analogy, but also expands upon it. The differences between the two passages—the supplementation of 1.192-8 in 1.814-29—is is highlighted by the following verbal signposts:

> **multa** *elementa vides* **multis communia** *verbis* (1.824)
>
> quia **multa** modis **communia multis**
> **multarum** rerum in rebus primordia mixta
> sunt….. (1.814-16)
>
> ut potius **multis communia** corpora rebus
> **multa** putes esse, ut *verbis elementa videmus* (1.196-7)

There are clear links from 1.824 to the verses slightly earlier in the second *elementa* analogy (1.814-16), and also to the first point of the analogy at 1.192-8. The second statement of the principle of shared elements at 1.814-16 repeats the idea from 1.196-8 as fact (*quia…sunt*), as if the reader has now accepted it. This is a prime example of the idea of 'common-grounding' by repetition which we have seen in the previous chapter, p. 185 whereby a repetition can allow for supplementation of the argument at hand, in leading the reader to suppose that the repeated item (here that there are shared elements to many things) is now 'common-ground', or even fact.[21] There is, indeed, a new element to the second passage (and therefore difference in outcome)—the supplementation of the earlier assertion that things need nourishment.[22] The reader learns more about specific kinds of nourishment.

A word on the fact that these repeated statements are verbally slightly different, though the elements they are made of are *communia*. As Lucretius himself says: *cum tamen inter se versus ac verba necessest | confiteare et re et sonitu distare sonanti* (1.825-6). What is emphasised by the links between the passages is both the variety of

[21] See p. 185, fn. 11.
[22] The difference does not need to be great to illustrate what Lucretius proposes in the analogy: the analogy does not specify how different products might be from one another.

production and the shared idea that the atoms, nothing else, are the bedrock of the generation of things on Earth. The connections actually show the reader both of these elements by highlighting not only connections between the passages but also disparities.[23] The conclusion of the second *elementa* analogy (*at rerum quae sunt primordia, plura | adhibere possunt unde queant variae res quaeque creari* (1.828-9)) emphasises the notion that atoms are the root of all creation, and so implicitly negates the idea of divine creation which the first *elementa* analogy targets (especially with the word *creari* which is suggestive of the conscious act of the gods). One also sees, then, an ultimate unity of thought between the first two instances of the analogy.

We learned above that each passage in some way refutes the notion of divine production or emphasises the existence of fundamental particles (arguably the latter contributes implicitly to the former and I indicate the inextricability of the two above, at p. 245). First let us look more closely at the following couplet:[24]

> namque eadem caelum mare terras flumina solem
> constituunt, eadem fruges arbusta animantis, (1.820-1)

The emphasis in the passage at 1.814-29 is on atoms and letters which are common to various end products, whether the products are different or similar to one another. The passage also emphasises the importance of the position and motion of the *elementa* (whether letters or atoms):[25]

> verum **aliis alioque modo commixta moventur**.
> quin etiam passim nostris in versibus ipsis
> multa elementa vides multis communia verbis,
> cum tamen inter se versus ac verba necessest 825
> confiteare et re et sonitu distare sonanti.
> tantum elementa queunt **permutato ordine solo**;
> at rerum quae sunt primordia, plura adhibere

[23] Although the first analogy occurs far in advance of the second, which may make the reader's detection of the similarity (especially the verbal similarity) more unlikely, the repetition so close together in the second instance (at 1.814-15 and 1.824) might lead the reader to recall the earlier language at 1.196-7, or to look back at the first analogy, or else to be aware of it in the future and in re-reading the poem.
[24] These lines are repeated almost exactly at 2.1015-6 (with the exception of the substitution of *constituunt* in 1.821 for *significant* in 2.1016). Oddly, scholars do not seem to have trouble interpreting 1.820-1, but they do admit trouble with 2.1015. I discuss the couplet in detail below, 5.1.3 and 5.1.3.1.
[25] Cf. Arist. *Metaph.* 1.985b.

possunt unde queant variae res quaeque creari. (1.822-9)

As well as focusing on the importance of the arrangement (*ordo*) and movement of atoms or letters (noting that in letters, movement must be the same thing as arrangement) the passage at 1.814-29 also returns (like 1.192-8) to the idea that nothing can be divinely created from nothing, found earlier at 1.150, and I have said more on this broad context above at pp. 244-5.[26]

One can see that, in addition to the verbal echoes between the first two instances of the analogy at 1.192-8 and 1.814-29, there are also significant connections of content to be found, as well as some differences. This might be said to illustrate the principle suggested in the analogies: *tantum elementa queunt permutato ordine solo*.

5.1.2 Mirroring Word Order

Remembering that the passage at 1.814-29 focuses on the notion that letters and atoms are alike, in that motion and position are highly significant as to their product after combination, one can see obvious connection to the next instance of the analogy at 1.907-14. There is even a direct repetition of a couplet at 1.909-10 which has already been seen at 1.818-9:

cum quibus et quali positura contineantur
et quos inter se dent motus accipantque.

This particular instance of the letters-atoms analogy at 1.907-14 is sure support for Friedländer's thesis:

iamne vides igitur, **paulo** quod diximus ante,
permagni referre eadem primordia saepe
cum quibus et quali positura contineantur
et quos **inter se** dent motus accipantque,
atque eadem **paulo inter se mutata** creare
ignis et lignum? quo pacto verba quoque ipsa

[26] The limits of the analogy are perhaps revealed here, when one notes this difference. That said, letters can also 'move' in a sense (though, somewhat problematically for an Epicurean, they require an author to move them).

> **inter se paulo mutatis** sunt elementis,
> cum ligna atque ignis distincta voce notemus. (1.907-14)

I have said above that this passage is ultimately part of a refutation of Anaxagoras' theory of *homoeomeria*, which posits that each substance is constituted of smaller parts of the main compound, so bones are made up of small pieces of bone. The argument is explained at 1.834-42.[27] Lucretius repeats the idea that the arrangment (*quibus et quali positura contineantur*) and movement (*motus*) of the atoms are very important for the result of their unions. And so the same elements combined with something a little different can create something distinct (as in *ignis* and *lignum*). A small change in atomic arrangement can result in a significant change in substance.

The analogy works on another level: Lucretius rejects the idea that substance X is made up of many minute particles of X. Letters too are not a smaller, mirror image of the words which, when grouped together, create larger compounds. So first beginnings or atoms must also be of a basic nature, and fundamentally and ostensibly different to the end product. Crucially, while for Anaxagoras, position of the smaller constituents is no consideration, for Lucretius' atomistic theory this is paramount.[28]

The reader may note in 1.907-14 the repetition and recombination of the words *paulo* and *mutat-a/-is*, and the phrase *inter se*. The altered placement of the words and phrases is crucial: Lucretius does not miss the opportunity to illustrate through repetition and relocation that the same *elementa* (here on a smaller scale than I illustrated with the analogies in their entirety at 5.1.1) rearranged, can create a different outcome. The repeated couplet too at 1.818-9 = 1.909-10 can be used as illustration of the principle of the letter/ atoms analogy: the meaning of the verses

[27] See Wills (1996), 209.
[28] As much as Dalzell (1980) attempts to refute the notion of any purposeful imaging of the world in Lucretius' language, he admits, 22, that 'This is a brilliant and witty adaptation of the traditional illustration, and it comes closer than any of the other examples to supporting the thesis which Friedländer wishes to defend.'

which contain the reiterations is by no means the same at each instance of the duplicated couplet.

The *elementa*, then, need not be individual letters, but, just as in the world, where 'repetition' or recurrence of atoms and larger particles and substances in different arrangements and combinations can create different substances, plants, or animals, so too in *DRN*, in which the repetition may be relatively minute or larger, the outcome may still be distinct.

5.1.3 A Problematic Repeated Couplet

The importance of position and motion of atoms is stressed too in the final instance of the analogy, at 2.1013-22:[29]

quin etiam refert **nostris in versibus ipsis**
cum quibus et quali sint ordine quaeque locata;
namque eadem caelum mare terras flumina solem 1015
significant, **eadem fruges arbusta animantis;**
si non omnia sunt, at multo maxima pars est
consimilis; verum positura discrepitant res.
sic ipsis **in rebus item** iam materiai 1019
concursus motus ordo positura figurae 1021
cum permutantur, mutari res quoque debent. (2.1013-22)

The couplet at 2.1015-16 is repeated from the analogy's second occurrence, at 1.820-1, which I discussed briefly above, p. 248. Here Lucretius explains that just as the placement of letters is crucial for writing a given word, so the makeup of substances is contingent on atomic position. Moreover, as we have seen, the placement of a larger syntactical component is important for the resulting meaning. While the first iteration of the couplet at 1.820-1 is not part of an argument about any cycle of life, its later dupliciation at 2.1015-16 is part of this argument. I explained briefly in Section

[29] There is clear connection between morphology and syntax and atomic arrangement. Snyder (1980), 44 points out that the first and last instances of the analogy enclose the atomic exposition, given their positions near the start of Book 1 and at the end of Book 2.

5.1.1 the argument as part of which the analogy at 2.1013-22 occurs: that atoms are not sentient and that that even living things are constructed from non-living things. The ultimate point is that, though the atoms are not living, they are still the root of everything, including living things. Living and non-living things, moreover, are resolved to these same non-living particles on the point of death. We are made from the elements of the earth and the sky, and we return to these elements (2.991-1022). These principles are crucial to note for the analysis of the couplet which follows. But for now, we have already seen that an identical *elementum* (here, the repeated couplet), in a different *ordo* (or position or sequence in the text), contributes to the production of *variae res* (a vastly different context).

Scholars have had trouble with these lines, and especially with 2.1015-6 (=1.820-1): the second instance of the couplet, in Book 2, has been questioned by many and deleted by some.[30] Dalzell too is puzzled by the couplet: 'Clearly *solem* and *mare* are not formed from the same letters and lines 1015-6 will make sense only if *eadem* is interpreted to include all the letters of the Latin alphabet. But in that case it is difficult to construe the following couplet: "If all (all of what?) are not alike...."'.[31]

But the lines have been misinterpreted and mistranslated. Scholars have taken each verse in the couplet in isolation from the other: they have supposed that Lucretius says that the same letters which constitute *caelum* also make up *mare,* and make up *terras,* and *flumina*, and *solem*. They have also understood that Lucretius claims *independently* that the same letters as make up *fruges* make up *arbusta*, and also *animantis*.

[30] Munro (1866); Brieger (1894); Giussani (1896-8); and Bailey (1947) all question the verses' presence in Book 2. Munro deletes the verses; Brieger and Giussani bracket them; Bailey (1947), p.958 in his introductory note to 2.991-1022 describes them as 'a patchwork passage, hastily composed by Lucretius as he was seized with the thought of using his illustration once again.'
[31] Dalzell (1987), 22.

If he were, in fact, claiming this, Lucretius would clearly be incorrect or misleading us (see Dalzell's comment above). The letters in *fruges* (e, f, g, r, s, and u) clearly do not make up *arbusta* or *animantis*.

But if we understand each verse in relation to the other, so that the first *eadem* at 2.1015 does not mean 'the same letters', but 'whichever letters', this alters the sense significantly, and the problems of interpretation disappear. Each separate verse should be seen in relation to, or connected to, the other, and not as a statement independent of the other verse.[32] Lucretius tells us that whichever letters make up this list of words also make up a different list. Taking the Latin this way still makes grammatical sense: *eadem...eadem...* can easily be taken as 'whichever [things]... those same [things]...'.[33] If we make this change, we have the following translation (Rouse's adapted by me):

> Moreover, it is important in my own verses with what and in what order the various elements are placed. For **whichever letters** denote sky, sea, earth ,rivers, sun, **the same ones** denote crops, trees, animals. Even if they are not all alike, they are for the most part; but position marks the difference in what results. So also when we turn to real things: when the combinations of matter, when its motions, order, position, shapes are changed, the thing also must be changed.

This minor change has the crucial interpretative benefit of fitting in exactly with the broad argument of which 2.1015-16 is a part, which I have just described. The reader has at this point just been told that atoms are inanimate, that they make up living things as well as non-living things, and that we ourselves come from the same elements as 'father earth' and 'mother sky'. The couplet now makes sense: here, Lucretius paints a picture of this for the reader. Lucretius emphasises in the couplet the difference between two groups of things: the sky, sea, earth, rivers, and sun make

[32] Stephen Harrison suggests to me 'parallel [letters/atoms]' as an alternative; these are also viable suggestions, but what is crucial is that each *eadem* indicates relativity to the other.
[33] *TLL*, 7.1.194.6-7.1.194.28. The examples cited defend my interpretation of the Lucretian verses (esp. Cic. *Ver. cum ... Verres fortunas agi suas diceret, idem testimonium diceret, idem esset in consilio, idem accusatorem parasset*); they illustrate that there is a relationship between each clause which contains the pronoun, and that the clauses are not to be seen as separate from each other but related and connected by the repeated pronoun. Incidentally, *TLL* lists 1.820, but not 2.1015, suggesting the author doubts the authenticity of the repeated couplet. Cf. *H-S* 467[3]. *Kühner-Holzweissig* does not contain any reference to the duplication of *eadem* at 594-5; nor does Menge (2007), 119-20; the couplet 1.820-1 is not named in the index locorum of *Kühner-Stegmann*.

the first group, which is different from crops, trees, and animals. The differentiation is clearly between non-living and living things.

He makes the point that living and non-living things differ from each other (to the extreme), but these things, much in the same way that the letters making up the words which represent them are actually shared and cross any boundary which might exist between them, are similarly made up of shared atoms.[34] Inanimate atoms make up living things and non-living things in the world. This precise concept is mirrored in these two verses.

As explained in the repeated *elementa* analogies, it is the position of the basic units which makes the words different from each other. From the *caelum, mare, terras, flumina,* and *solem* of line 1015, we have the letters: a, c, e, f, i, l, m, n, o, r, s, t, u. For making the words *fruges, arbusta,* and *animantis* of line 1016, we are supplied with all of the letters needed, except two: g in *fruges* and b in *arbusta*. As Lucretius admits, *si non omnia sunt, at multo maxima pars est* | *consimilis* (2.1017-8). Not all of the letters are the same or are supplied, but for the most part, the fundamental elements are identical. The elements which create the non-living things ('mother earth' and 'father sky') can, rearranged, create the living things.

The two lines following 2.1015-6 which Dalzell complains about should now make sense. This is an precise illustration of the repeated *elementa* analogy. This example supplies more substantiation for Friedländer's findings that for Lucretius, his language is meant to reflect the Epicurean world. Here Lucretius illustrates, through his arrangement of letters, his point that there are common fundamental particles to things which are distinct. He even explicitly says that just as it is with language, so it is with matter (2.1019-22). Lucretius is clearly interested in reflecting reality through

[34] Friedländer (1941).

his language, and I hope to illustrate in this chapter that his interest in this pervades *DRN*.

Perhaps Lucretius also thinks that fundamentals work in the reverse direction. The reason the analogy is so neat may be because language for Lucretius is a part of the world he describes: the principle therefore can extend to his writing if he believes his own arguments about the makeup of the world.[35]

5.1.3.1 A Textual Question

The couplet just discussed has already occurred at 1.820-1, as I mention above; it has a minor alteration (the substitution of *constituunt* at 1.821 for *significant* at 2.1016):

> namque eadem caelum mare terras flumina solem
> constituunt, eadem fruges arbusta animantis, (1.820-1)

While it is possible that the repetition should be exact,[36] and one of the readings is incorrect, let us consider the text as it is and see how this affects interpretation. In the second instance of the repeated couplet which we have just discussed in detail, the point is that the letters of the alphabet are common to the names of both living and non-living things. This is made clear by *significant* at 2.1016, while *eadem* could refer either to atoms or to letters.

Significant, translated into English as 'means' or 'signifies' makes it impossible that *eadem* means anything other than the letters of the alphabet. But at 1.821, where we have *constituunt*, the meaning is ambiguous. It could mean 'arrange' or 'set up', or something similar. In this case, Lucretius could refer to the arrangement of the letters *or of the atoms* of the living and non-living things. *Constituunt* could also mean

[35] Volk (2002), 101 points out the two-way possibilities of the analogy. Cf. Wills (1996), 211 who hints at the reflection of the world in Lucretius' discussion of multiple mirrors at 4.302, 4.308, and 4.314.
[36] See also pp. 119-20.

'create', in which case the referent might be stretched to include letters of the alphabet (the letters of the alphabet might feasibly 'create' a word), but on this reading it is more likely to refer to the atoms which make up the different things, living and non-living.[37]

If we accept that there is a strong sense of atomic makeup in the first passage, at 1.814-29, then it is surely meaningful that Lucretius should change one word in his duplication of the couplet hundreds of lines later at 2.1015-6. The result of the repetition with alteration is twofold. First, the connection between atoms and letters is further strengthened through the repetition and consequent association between the two passages. The allusion from the couplet in Book 2, where Lucretius refers exclusively to letter-arrangement, to an identical earlier passage which suggests atomic structure stresses the affinity of atoms with letters even across a large section of text. Secondly, one minor change in the ingredients results in a significant difference of output. This point is seen in particular at 1.907-14 about *ignis* and *lignum*, and in general has been seen with the larger repeated idea of the *elementa* analogy: that minor changes, or changes of position, on a fundamental level can lead to significant diversity. Language again reflects the world Lucretius describes.[38]

One might briefly compare long repetitions which contain variations: for example, the duplication of 3.784-97 at 5.128-41 (quoted above, p. 122). A small change at the end of the passages: *durare genique* / *formamque animalem*, a mere atom-shift, alters

[37] By this reasoning, *significant* cannot be the correct reading in both places, though it may be at 2.1016. The choice is between seeing a purposeful and noticeable change in the text (from *constituunt* to *significant*) intended to draw further attention to the similarities of atoms and letters (as I explain in the main text), and taking *constituunt* at both places, and so seeing an ambiguity in both places. It is worth saying that the editors do not question the text in either place.

[38] It is possible that a later (competent) copyist made the change when unable to make out the Latin at 2.1016. It is feasible too that Lucretius wished to repeat himself exactly, and that when writing from memory the second instance of the passage, he replaced the verb accidentally with one which makes equal sense. This has possibly happened elsewhere in the text where there is a non-significant substitution (usually synonymous) of a verb e.g. 2.29-33 ≈ 5.1392-6, on which see Farrington (1953). In this instance, however, because to change either verb (*significant* or *constituunt*) to match the other would be interetatively constrictive, and because the potential reasons for variation are compelling, I think the repetition with the variation is as intended.

the meaning of the passage. The first broadly asserts the mortality of the soul; the second, that of the world. There are obvious similarities, and an affinity between the human body and the worldly body shows the ultimate unity I propose for *DRN*. But the arguments and end-product are inescapably different.

5.1.4 Atomistic Language Against Divine Creation

Let us take a more detailed look at argumentative connections between the first and fourth instances of the elements analogy. The passage 1.196-8 (part of the argument discussed above in 5.1.1, that nothing can be created from nothing) is clearly connected to a later part of the poem at 2.589-99, which contains an assertion that the earth contains all kinds of elements (*corpora prima*). Lucretius ends this short passage with the conclusion that this is why the earth is rightly called *mater*.[39] At 2.589-99 Lucretius claims that it is the land which creates new products. This is compatible with Lucretius' advocation of the conservation and continuous recycling of matter, which will later occur at 5.247-323 (and especially at 5.318-23). Similarly, at a later part of Book 2, Lucretius describes how matter resolves and goes back into the earth when it dies, and likewise new products are produced from the earth (2.991-1022), which we have discussed. 2.660-71 anticipates this argument and also proposes that different things (animals, the plants they consume, and the rivers from which they drink) are made up of different elements. This argument is the essential basis on which to build the later arguments that living things are made from non-living atoms: that animals can indeed be made from the earth (though not in the way

[39] The etymology existed before Lucretius; see Müller (1935), 37; *W-H* s.v. *terra*. For personification and deification of *terra* see *Ernout-Meillet* s.v.. Deification of *terra* has been changed in Lucretius to an anti-deifying argument; rationalising myth or tradition.

that is sometimes suggested by Lucretius' language).[40] In the end this is an argument against divine creation: the power is removed from the god.

The passage in Book 2 concludes with another instance of the *elementa* analogy, at 2.688-99. It does not end, as at 1.196-8, with a veiled reference to an anti-creation argument. But the passages are connected, nonetheless, and one might recall the fuller passage at 2.589-699. Here, Lucretius describes how everything contains more than one kind of element, and dispels the *magna mater* myth explicitly at 2.644-60, explaining the production of matter by combinations of different atoms at 2.661-99. One can see strong connections between the *elementa* analogies and an argument for the powerlessness of the gods: the assertion of the crucial nature of fundamental matter to the world as we know it is bound up with a rejection of traditional beliefs about powerful gods.

The fourth *elementa* analogy, despite not having a particular focus on position and/ or movement of atoms and/ or letters, also contains significant connections (both verbal and argumentative) to the other instances of the analogy. First let us look at the repeated lines in 2.688-91 from 1.823-6 (emphasised):

> **quin etiam passim nostris in versibus ipsis**
> **multa elementa vides multis communia verbis**,
> **cum tamen inter se versus ac verba necesse est**
> **confiteare** alia ex aliis constare elementis;
> non quo multa parum communis littera currat
> aut nulla inter se duo sint ex omnibus isdem,
> sed quia non vulgo paria omnibus omnia constant.[41]
> sic aliis in rebus item, communia multa
> multarum rerum cum sint primordia, verum
> dissimili tamen inter se consistere summa
> possunt; ut merito ex aliis constare feratur
> humanum genus et fruges arbustaque laeta. (2.688-99)
>
> ni mirum quia multa modis communia multis
> multarum rerum in rebus primordia mixta 815
> sunt, ideo variis variae res rebus aluntur.
> atque eadem magni refert primordia saepe
> cum quibus et quali positura contineantur

[40] e.g. 2.991-8: the naming of earth as 'mother' implies deification, clearly not what Lucretius actually promotes.
[41] Compare 2.693-4 with 2.336-7 and 2.723-4.

et quos inter se dent motus accipiantque;
namque eadem caelum mare terras flumina solem 820
constituunt, eadem fruges arbusta animantis,
verum aliis alioque modo commixta moventur.
quin etiam passim nostris in versibus ipsis
multa elementa vides multis communia verbis,
cum tamen inter se versus ac verba necessest 825
confiteare et re et sonitu distare sonanti.
tantum elementa queunt permutato ordine solo;
at rerum quae sunt primordia, plura adhibere
possunt unde queant variae res quaeque creari. (1.814-29)

At 2.688-99 words and letters are used as an example of the idea that no thing contains only one type of element, but rather all things are composed of different elements. The expressly self-conscious verses at 1.823-4 are repeated at 2.688-9.[42] These lines compare the production of distinct 'products' of repeated letters of the alphabet (and, as I argue, different-sized components, even couplets and passages) in the text, to the generation of distinct products from repeated elements in the world. The variety in all of the broader arguments where each instance of the analogy occurs should illustrate the variety which Lucretius wants to show can be created with repeated (but rearranged) atomic particles.

All repetitions of the analogy contain shared elements and internal allusions, yet each creates to some degree a part of a different argument. This particular set of internal connections and allusions is a particularly apt embodiment of the very phenomenon it describes. The apparently small-scale argument, that letters and/or atoms are shared and yet with rearrangement can produce wholly distinct outcomes, is expanded, as I mention above, to apply to larger components: we are shown that repetitions of words, phrases, and even verses, can occur within a much larger section of text and yet produce different results. The notion of repetition and reconfiguration of fundamental elements to produce different results is reflected in the text on a micro-scale (such as in the couplet of rearranged letters in 5.1.3) right up to the

[42] See Volk (2002), 100-101.

macro-scale (such as in the analogies themselves which consist of multi-linear repetitions and allusions, at 5.1.1) in which not only letters and atoms are analogous, but also larger components of *DRN* and larger bodies.[43] Yet there is still an ultimate argumentative unity to the message, suggestive of Lucretius' vision of the world.

5.2 Building on Fundamentals

This section will investigate Lucretius' language for the fundamental particles, to see how their reiteration (or lack thereof) helps to paint a picture of the Epicurean universe (5.2.1). As I shall show following this (5.2.2), even Lucretius' argumentative structure might be seen to suggest the worldview he proposes.

5.2.1 Atomic Variety and Avoiding Repetition

A striking feature of repetition in *DRN* is a propensity towards variation in naming the atoms.[44] Lucretius repeats the names of the atoms many times, despite varying the nomenclature he uses. While repetition may be thought of as a natural result of the fundamental nature of the atoms to the world as Lucretius sees it, the variety among the terms used is remarkable. In order of frequency, the terms for the atoms are: (*genitalia*) *corpora*, *primordia rerum*, *semina* (*rerum*), *principia*, *elementa*, and *exordia rerum*.[45] Different designations are chosen depending on which aspect of the fundamental particle is emphasised, and I shall offer some explanation here.

In Book 1 Lucretius gives a plan for the poem: he says that he will explain the *summa ratio* of the skies and the gods, the *rerum primordia*, and from where *natura*

[43] On analogy see for instance above, p. 152, fn. 34, and p. 190, fn. 25.
[44] See above, pp. 18-20 for what constitutes repetition and therefore by extension what constitutes avoidance of repetition.
[45] The number of instances in *DRN* of the following 'elementary' words, only in plural form shown: *corpora* (161); *primordia rerum* (72) ; *semina (rerum)* (66) ; *principia* (46) ; *elementa* (10) ; *exordia rerum* (4). NB *genitalia corpora* is seen only 3 times (though *genitalia materiai* | *corpora* is also seen at 2.62-3). See too fn. 48 below.

creates them and resolves them again (1.54-7). This is the first mention of the atoms. Of all of the terms Lucretius will adopt for 'atom', the basis of the world, he chooses *rerum primordia*. This can represent the notion that to learn about atoms (and subsequently apply such knowledge) will be the basis (*primordia*) of Lucretius' teachings of the *rerum natura*. Even at this point in the poem, the language of *DRN* might be said to be reflecting the workings of the world.

On occasion, Lucretius prefers *semina* or *corpora genitalia* to other names for particles because these terms alone convey the biological aspect of procreation.[46] The first instance of *semina rerum* at 1.59 appears in close proximity to *genitalia corpora* (1.58), and these terms for the generative principles arguably draw attention to the creative capabilities of fundamental matter (*genitalia* being related to *gignere* which is a cognate of the Greek *gignesthai*, and *semina* having clear biological implications).[47]

At the point where *semina rerum* occurs at 1.59, and before that at 1.58 *genitalia corpora* occurs, Venus has been undermined. Some fifty lines previously she was hailed as the creative principle on Earth, and now *natura* is the creator (*unde omnis natura creet res auctet alatque* at 1.56). I suggest too that the use of the verb *alat* recalls the second line of the poem where Lucretius addresses *alma Venus*: kindly, or, literally and etymologically, 'nourishing' Venus (the adjective derives from *alere*). Nature, or at least a true understanding of it, has supplanted the gods.

Further, the use of *genitalia*, seen in the poem with *corpora* and *semina*, must recall the first two words of the poem: *Aeneadum genetrix*.[48] This is especially

[46] See Schrijvers (2007), 257-66, who points out, 265, the problem that strictly speaking, explaining imperishible matter through biological imagery does not work, since biological matter will eventually perish. Cf. Kennedy (2007), 387, 394-6, and Fowler (1989), 145-8 for anthropomorphism of atomic matter.
[47] For the etymology of *gignere* see *W-H* and *Ernout-Meillet*.
[48] For *genitalia corpora*: 1.58, 1.167, 2.62, 2.548; *genitalia semina*: 5.851; *semina*: 1.59, 1.176, 1.501, 1.614, 1.895, 1.902, 2.439, 2.481, 2.497, 2.677, 2.725, 2.755, 2.760, 2.776, 2.833, 2.1054, 2.1059,

plausible given that *genitalia* first occurs at 1.58, not long at all after the first statement of Venus' (supposed) creative powers, at the open of the poem. From this point on any mention of the atoms or particles which uses such biological imagery is likely to carry with it an implied undermining of the hymn to Venus and therefore of divine power in general.

The use of *corpora* may be intended to draw a connection between human bodies as in *membra*, and fundamental bodies such as *corpora prima*. Just as smaller bodies are ultimately made of the same *elementa* (atoms and letters of the alphabet), so too are larger bodies, and this is mirrored in the very language used.[49] The connection between bodies or particles of different sizes is emphasised where we see Lucretius talk within just a few lines, at 5.59-66, of the soul's having had a birth, and that being bodily (already discussed at 3.445-58), and the fact the world too had a birth (which he will discuss later in Book 5). The language used for each statement is nearly identical, and creates a definite and obvious connection between the body of the human and the structure of the world:[50]

> quo genere in primis animi natura reperta est
> **nativo** prima **consistere corpore** creta (5.59-60)
>
> quod super est, nunc huc rationis detulit ordo,
> ut mihi mortali **consistere corpore** mundum
> **nativomque** simul ratio reddunda sit esse (5.64-6)

The connection of the two kinds of *corpus* in the world is reflected in linguistic links in the text.

2.1072, 2.1108, 3.127, 3.226, 3.393, 3.496, 3.713, 3.727, 3.857, 4.305, 4.309, 4.644, 4.649, 4.715, 4.1215, 4.1257, 4.1261, 4.1267, 5.660, 5.668, 5.852, 5.916, 6.160, 6.182, 6.201, 6.206, 6.213, 6.217, 6.272, 6.276, 6.316, 6.343, 6.444, 6.497, 6.507, 6.520, 6.662, 6.672, 6.789, 6.841, 6.863, 6.867, 6.876, 6.884, 6.896, 6.899, 6.1003, 6.1093.

[49] For this type of analogy see Schrijvers (2007), 255-88.

[50] This association between larger and smaller bodies and the connection between the mortal nature of the human body and of the body of the world. Schrijvers (2007), 271-6, on *makranthropos* (man as microcosm for the world) – applies here I think. See too above, p. 143, fn. 5 and p. 90, fn. 25.

The use of *elementa* has been discussed in detail above. In part it recalls the connection between language and world in *DRN*, but there are also other uses of the word. Its first instance is at 1.81 where Lucretius writes:

> Illud in his rebus vereor, ne forte rearis
> impia te rationis inire elementa viamque
> indugredi sceleris. (1.80-2)

Initially, the word *elementa* refers to Lucretius' teachings, and comes as part of Lucretius' statement of concern that the reader might suppose he begins on a path of wickedness (*viamque* | *indugredi sceleris*), and enters on the 'principles of some unholy reasoning' (*impia…rationis…elementa*) (Bailey's translation). Bailey's rendering of *elementa* reflects the close connection between Lucretius' teachings or 'principles', between the letters of the alphabet, and the fundamental or 'principle' parts of the world. These connections become apparent with further uses of *elementa* as the poem progresses.

The next instance of *elementa* when not part of the famous analogy is at 3.374:

> nam cum multo sunt animae elementa minora
> quam quibus e corpus nobis et viscera constant,
> tum numero quoque concedunt et rara per artus
> dissita sunt, dum taxat ut hoc promittere possis,
> quantula prima queant nobis iniecta ciere
> corpora sensiferos motus in corpore, tanta
> intervalla tenere exordia prima animai. (3.374-80)

The meaning of the *elementa* here is quite different. Lucretius here refers to the constituents of the *anima*. Particles of matter are meant too by the instances of *elementa* at 4.441, 5.599, 5.1445, and 6.312.

There is some defence here for Schiesaro's *palingenesis* theory of *DRN*.[51] While one might not recall the fairly subtle allusion found in these different uses of *elementa*, in re-reading, this would be clearer, and one could not help but anticipate the atoms of *DRN* on reading of the *impia…rationis…elementa*. A connection has

[51] In which he argues that the poem is intended by Lucretius to be re-read, and so 're-born'.

been built between 'principles' and fundamentals of teaching and the 'principles' and fundamental parts of physical matter.

Let us recollect the five examples of the analogy between *elementa* of language and of matter. On the reading I have just suggested it is difficult to ignore the clear connections not only between the principles of matter and of Lucretius' teachings, but also of the language of *DRN*. The three types of *elementa*: language, physical matter, and the teachings of the poem itself, are woven and interconnected throughout the poem. Language is a vehicle to convey the workings of the world, but the two are also so intertwined within the poem that both the poem and even the rather more abstract concept of the teachings contained within it are—to an extent—made a part of the world.[52] Since the *elementa* can mean something so different depending on context, this also reflects Lucretius' point about similar elements making up various products depending on arrangement.

It is not until a third of the way through Book 2 that Lucretius comes to discuss the different kinds of the fundamental particles. At this point, Lucretius uses a new term for the principal parts: *exordia rerum* (2.333). This new term is perhaps reflective of the new discussion at hand: the fact that the discussion of the different types of particles begins here. The use of *exordium* is also suggestive of oratorical discourse, and so may constitute a meta-literary reference to the rhetorical terms.[53] One might imagine too that the use of *exordium* further stresses the 'newness' or new start to this part of the work, if it is understood as a meta-literary reference to the rhetorical term.

Until this point the reader has seen *primordia rerum*, *(genitalia*) *corpora*, *corpora prima*, and *semina* (*rerum*). More broadly, the variety of terms for the elemental particles may reflect too Lucretius' vision of the fundamental parts as being different

[52] For this concept, which might encapsulate a breaking of the boundary between text and the 'real' world, or the world of the reader, see too above, 3.4.
[53] See e.g. *Rhet. Her.* 1.3.4-8. Cf. Rawson (1985), 149.

to each other in many ways (such as relative size, smoothness or roughness). Although this is the first use of *exordia* to mean atoms, it is not the first time that the word has been used in the poem. The first instance of the word is at 1.149, where Lucretius tells us that no thing arises from nothing by divine action:

> Principium cuius hinc nobis exordia sumet,
> nullam rem e nihilo gigni divinitus umquam. (1.149-50)

This, he tells us, is the foundation of his teachings, and the *beginnings* of the reader's *lessons*: both *principium* and *exordia* indicate and emphasise the fundamental nature of this principle.[54] The connection between basic principles of matter and basic principles of teaching is bound up here with the notion that nothing can be created from nothing.

The lesson that nothing comes about *ex nihilo* is shown to be fundamental, even crucial, to the rest of the teachings in *DRN* through the connection to the idea of *exordia* as fundamental particles at 1.149-50. An *exordium* can indicate both a fundamental argument and a fundamental particle: its repetition therefore connects these physical arguments to the abstract idea of Lucretius' teaching these principles.

I discuss above in 4.3.1 the repetition of the idea that nothing is created *ex nihilo*. I argue there that with the removal of *divinitus* from subsequent reiterations of the idea, the linguistic or textual absence of the divine mirrors the absence of the divine both from the worldview Lucretius represents, and from the world itself.[55] This is also discussed below (5.3.5). The use of two new terms, *principia* and *exordia*, which will be used later in the poem to refer to the basic particles of our world, and which are

[54] This connection between a foundation of teaching and of matter is also conveyed by the use of another term for particles: *principia*. We have already seen in particular in Chapter 4 that the notion that nothing comes about through divine power *ex nihilo* is fundamental to many arguments in the poem and also pervasive.

[55] For Lucretius' allusion to Sappho fr.31, and that part of the allusion includes the omission of the final extant stanza which is there 'in Derrida's phrase… "under erasure"', see Fowler (2000), 151-2, esp. 152. For the concept of allusion 'under erasure' elsewhere cf. Fowler (2000), 119-21, 129, 154, and 166. The creation (and disappointment or lack of fulfilment) of readerly expectation is clear to me in these cases, and leads me to believe that omission of a repetition where it is expected functions similarly to the concept Fowler discusses, and can therefore also be qualified in some sense as a repetition or internal allusion.

used at 1.149-50 to describe the fundamental nature of the teachings which follow, creates a connection between simple particles and simple principles; between the structure of the world and the teachings about this structure. Lucretius has built a bridge between his poem and the world which it describes.

I close this discussion of diversity of atomic structure with a small case-study which explores the differing forms of atoms in *DRN*, and the way in which Lucretius reflects the different types of atoms in the world onto the text.

I have mentioned that at 2.333 Lucretius uses *exordia* for the first time to refer to fundamental matter. This is both a new usage of *exordia* in the poem and a new name for atoms. The introduction of *exordia* with this sense comes at a point where Lucretius talks about the various forms and shapes of atoms; a new name for atoms can reflect the atomic variety which Lucretius is about to discuss.

The next two lines restate the same point in two different ways, again reflecting Lucretius' description of reality in the text: *distantia formis* (2.334) and *variata figuris* (2.335) both refer to the variety among atoms in their shape, and the variety of vocabulary, notwithstanding the identical grammatical forms, may mirror this difference. This point is made again at 4.45-6, and *exordia* is re-used as the name for the fundamental particles. Perhaps Lucretius makes the point that, despite variation in shape and appearance, the basic principles, the *exordia*, are the same.

To end this section on particles, I bring the focus to matter and void: the two ultimate constituents of the world which Lucretius brings up as a basis for all the things he discusses after their introduction. It is enough to say here that the repeated vocabulary of *corpora* (and other terms) and *inane* may well be a simple example of Lucretius' attempt to show the reader a vivid picture of the world in his poem. Likewise, in repeating so frequently the words which in particular refer to atomic

structure and the opposite of matter, void, Lucretius mirrors the description of the fundamental constituents of the world, which are themselves repeated and reconfigured in the world itself, with repeated fundamental vocabulary.[56] The fact that there is just one word for void (*inane*) but so many for basic matter is also clearly illustrative of reality: while there may be many variations of substance, this cannot be true of nothingness.

5.2.2 Atomistic Arguments

An aspect of Lucretian argumentative strategy is to build argument upon simpler argument: to heap up conclusions upon premises, to the extent that it is difficult to separate one particular (part of an) argument from another. A broad claim about Lucretius' attempt to show the reader his view of the world may be made in pointing out that this argumentative strategy is mirrored in his picture of the atomistic makeup of the world: simpler compounds are built upon and built up to create more complex substances, just as simpler statements are accumulated, repeated, and supplemented, to create more complicated arguments.[57]

The structural division of *DRN* into three pairs of books (Books 1 and 2 on atoms; Books 3 and 4 on humans; Books 5 and 6 on the wider world) is well-established and generally accepted.[58] This belief, though entirely reasonable on one level, may allow a reader of the text to miss the interdependent and interconnected nature of the arguments in the poem. This may be illustrated by exploration of intratextual

[56] I have discussed above, Chapter 3, the repetition of atoms and void in greater detail, and explore possible rhetorical roots for this repetition. I also look at the Empedoclean roots to this repetition in 1.4.1 and 1.4.4. Here, my focus is on Lucretius' rather more literary technique of painting a picture of the world in his text; trying to reflect the realities of the world via language.

[57] One might connect this idea too to the strategy which Wardy (1988) explores in his article, of bridging the gap between the invisible and visible worlds, of blending the apparently binary world.

[58] Farrell (2007), 76-91, esp. 78-9 bases a discussion of the poem's architecture on this division; cf. Farrell (2008). So far I have seen adherence to the 'pairs' structure in: Bailey (1947), 31-7; Boyancé (1963), 69-83; Owen (1968), 122-3; Cox (1971), 7-8; Kenney (1971), 12; Kenney (1977), 18-23; Sedley (1998), 144-5; and Gale (1994b), 8. Against fragmentation, see Sharrock (2000), 14-16 and (2013), 6.

connections that extend not only beyond the boundaries of individual books, but also beyond the boundaries of book-pairs.[59] To give an example, there are strong intratextual connections between Books 2 and 5: at 2.1084-8, when Lucretius argues that there are multiple worlds, the reader is told that *caelum…terramque et solem lunam mare, cetera* 'consist of a body which had a birth', *nativo corpore constant*; this notion of the world's being *nativum* will be picked up in Book 5, where Lucretius will make a detailed assertion of the world's natural (not supernatural) birth at 5. 416-508. In the proem to Book 5, where Lucretius prepares the reader for what he will discuss in the book, we see verbal repetition (of *corpus*, *nativum*, *constare/ consistere*) where he states: *mortali consistere corpore mundum | nativomque…*(5.64-6). The obvious argumentative connections are signposted by the verbal repetitions. Consideration of Lucretius' use of repetition can in such a way add significantly to a vision of the poem's argumentative structure as cumulative, and more complex than may have been previously perceived.[60]

That said, aspects of the division into book-pairs can be useful: fundamentals are described in Books 1 and 2, and used and reused later in the poem. This has the result that the reader can apply these basic principles to more complex arguments which are found in the later books of *DRN*, and to aspects of the world around her. One finds in the later books echoes of the first two books which have an obvious focus on atoms Just as for the Epicureans the world is based on atoms, so too is Lucretius' teaching based on *study of the atoms*. Examples of applications of fundamental lessons to later arguments in the poem will reveal this aspect of Lucretian repetition, internal allusion, and didactic strategy. They will also show the extent to which arguments in *DRN* cannot easily be contained within a book-boundary.

[59] See Smith (1966) for this approach.
[60] Scholars who see, and point out, connections between books are, e.g., Smith (1966); Asmis (1983), 66; Volk (2002), 89-93, esp. 92-3.

5.2.2.1 World and Text

The connection between Lucretius' text and the world he describes can be seen through a general intratext seen between 1.50-61 and the whole of the poem. There is also clearly connection on a smaller scale between 1.50-61 and Book 5.[61]

In Book 1, as I have described, Lucretius says that he will account for the *summa ratio* of the skies and of gods (1.54). He says that he will explain the *rerum primordia*, and their creation and resolution by *natura*. This might be seen as a microcosm in just a few lines, representative of the physics of the skies, the birth and death of the world, and nature's production of the *primordia* of human life, all of which is contained in the poem in general. It might also be seen in particular as a microcosm of Book 5 which, in summary, contains an explanation of the birth, development, life (so-to-speak) and future death of our world and all that lives upon it).[62]

There is also more specific internal allusion. Where the four 'elements' of the world, earth, fire, air, and water, are discussed at 5.235-305,[63] there is a connection in particular between 5.249-50 and the same lines in Book 1, from the so-called 'first syllabus', which introduce to the reader the notion that nature reduces 'all' into its specific elements (1.56-57). For comparison, both extracts are below:

unde omnis natura *creet* res **auctet** alatque
quove eadem **rursum** natura perempta **resolvat** (1.56-7)

...neque umorem dubitavi aurasque **perire**,
atque eadem *gigni* **rursusque augescere** dixi (5.249-50)

[61] Cf. 3.784-797; 5.128-141 for more internal allusion about mortality.
[62] See the plan of the *DRN* at 1.127-35, and specifically of Book 5 at 1.127-30.
[63] These elements are the four Empedoclean elements: Air, Earth, Fire, and Water. Cf. Trépanier (2007), 243-82 for a discussion on Lucretius and Empedocles; Cf. Sedley (2007), 1-8 for the Presocratic cosmogonies; for Empedocles see Sedley (2007), 52-9.

An Epicurean conception of death means that a structure is resolved into its smaller and smallest parts. The idea of creation (*creet*, *gigni*) then resolution (*resolvat*, *perire*) of elements seen in the plan for Book 1 is built upon in the fuller description and explanation of death and recreation in Book 5. The statement from 1.56-7 has already been repeated and augmented at a later stage in Book 1 (1.215-64).[64] The use of *rursus* in a similar, yet opposite way later (in Book 1 the *res* are 'resolved' *again*, while in Book 5 the *aurae* 'increase' (*augescere*) *again*) recalls the earlier passage but also reflects the cycle Lucretius describes. The use of the cognate of *augere* in both passages and the equivalences *resolvere* and *perire*[65] connect the two passages. These repetitions lead the reader from a theoretical situation in which destruction can occur—that is to say, a possibility—to a full description of the process of decay. To take things further, the recycling of similar elements from Book 1 to Book 5 can also be seen as reflective both of the repetitive nature of formation, decay, and rebirth (the cyclical nature of which has already been illustrated in *DRN*), as well as of the recycling of the elements themselves.[66]

The cycle of the elements recurs in Books 1 and 5. Each of the four elements in turn breaks down the other three. The earth is destroyed by air (5.254), reminding the

[64] This 'resolution' idea is not only seen at 1.56-57, but also at 1.215-328. For the concept that nothing is resolved to nothing cf. Epicur. *Epist. ad Hdt.* 39. Cf. *una dies dabit exitio* (5.95); Soph. *OT* 438. Lucretius draws attention, not to our own ephemeral nature, but to that of the world. Cf. Hom. *Il.* 6.144-9.

[65] To an Epicurean, death and resolution are precisely the same thing. Cf. Aaron Freeman (2005): 'You want a physicist to speak at your funeral. You want the physicist to talk to your grieving family about the conservation of energy, so they will understand that your energy has not died. You want the physicist to remind your sobbing mother about the first law of thermodynamics; that no energy gets created in the universe, and none is destroyed. You want your mother to know that all your energy, every vibration, every Btu of heat, every wave of every particle that was her beloved child remains with her in this world. You want the physicist to tell your weeping father that amid energies of the cosmos, you gave as good as you got.' Audio accessed 26/10/15 at http://www.npr.org/templates/story/story.php?storyId=4675953.

[66] There may be further defence here for Schiesaro's (1992) idea of the *palingenesis* and re-reading of *DRN*; if my suggestions about Lucretius' close connection of the text and the world have any basis, then this will strengthen an argument that Lucretius intended there to be a sort of 're-birth' of the poem once the reader has completed it: this is in line with the idea of the conservation and persistant recycling of matter. Cf. Gale (2000), 21-2 who views the proems as the re-births of the gloomy finales which precede them; and Minadeo (1965) who views the proem to *DRN* as a microcosm of the poem, beginning with creation and ending with destruction at 1.102-35.

audience of 1.273-9, which describes the wind's effect on trees and mountains. The passage from Book 1 comes as a part of the statement that there are atoms, despite their invisibility. Wind is the example Lucretius chooses to illustrate that an invisible body can nonetheless exist and indeed have an effect. In Book 5, earth is then broken down by water (5.255-6), evoking the water rushing over rocks in Book 1 (1.288-9). Water is swept away by air (5.266), just as in Book 1 the wind 'beats' the sea (*verberat*) (1.271). The sun, *retexens*, diminishes water (5.267), bringing to mind the argument for the drying of garments being caused by the sun's heat dispersing water particles (1.305-10). Aside from the contextual connection between these passages, where the sun is diminishing water at each instance, *retexens* might recall the idea of the (woven) garments in Book 1. This weaving of words in turn reminds the audience of the development of the process of weaving (5.1350-60).[67]

All of the verses of Book 1 which the Book 5 passage evokes come from the same passage, which asserts that atoms can exist and have an effect, though they are unseen. Lucretius describes the effects of invisible bodies such as wind, water vapour, and heat, on bodies which can be seen, such as mountains, rocks, and trees.[68] This is reminiscent of the strategy of using analogy, to reveal something unseen as something visible, in order to allow the reader to more easily understand the concept.[69]

The description of the breakdown of the worldy elements at 1.271-328 is all part of the broad statement that atoms, though invisible, *do exist*, and it is therefore one part

[67] West (1969), 81-82 suggests that *radiis* means shuttles. A connection is made with 5.1353, where *tela* is the loom (5.1351). One might wonder if weaving is intended as a metaphor for the process of writing *DRN* more generally. This may be another, metaliterary, way in which Lucretius unites the world of the text with the world outside the text. Writing as weaving words is originally epic. See *OLD* s.v. *texo*, 3b; Snyder (1981), 193-6; Section 3 of Scheid and Svenboro's (2001) monograph; and Hendren (2012), 409-21 who studies the weaving of alliteration.

[68] Wardy (1988), 112 and *passim* talks of the strangeness of the invisible atomic world which the Epicureans need to describe, and suggests that Lucretius' use of visible examples to illustrate unseen particles is a way of counteracting the possible alienation of his audience. This idea might easily extend to the whole strategy I am outlining in this chapter: in creating such vivid pictures of the world through his language and repetition, Lucretius is surely helping his reader picture more easily the world he describes, and possibly also helping him more readily believe it.

[69] On this see Lehoux (2013), 131-51.

of the most fundamental premises of the poem: the existence of atoms and void.

The simple premise is recalled much later in the poem when the reader is aware both of the earlier, basic teachings, and more complex arguments or applications which occur at a later stage in the text. The fundamentals are applied to more complicated arguments about the resolution of matter later in Book 5. This is knowledge necessary to understand that the world will die, and that one need not fear this death.[70]

A description of the resolution of air particles follows the description of the destruction (or rather, resolution) of earth and water in Book 5 (5.247-72). This particular explanation differs from the passages on the resolution of the other elements. The air is not described in terms of destruction alone, as the other elements are, but rather Lucretius explains its continual cycle of dissolution and re-production. The vocabulary used here draws together the passage with one in Book 1:

> sic igitur debent venti quoque flamina ferri,
> quae veluti validum cum **flumen** procubuere
> quamlibet in partem, trudunt res ante **ruuntque**
> impetibus crebris, interdum **vertice torto**
> corripiunt rapidoque **rotantia turbine** portant.
> quare etiam atque etiam sunt venti corpora caeca,
> quandoquidem factis et moribus aemula magnis
> **amnibus** inveniuntur, aperto corpore qui sunt. (1.290-7)

> Aera nunc igitur dicam qui corpore toto
> innumerabiliter privas mutatur in horas.
> semper enim, quodcumque **fluit** de rebus, id omne
> aeris in magnum fertur **mare**; qui nisi contra
> corpora retribuat rebus recreetque **fluentis**,
> omnia iam resoluta forent et in aera versa.
> haud igitur cessat gigni de rebus et in res
> reccidere, adsidue quoniam **fluere** omnia constat.
> Largus item **liquidi fons** luminis, aetherius sol,
> **inrigat** adsidue caelum candore recenti (5.273-82)

The passage in Book 1 which I have described above depicts the destruction of the elements water, fire, and earth, by the wind. The Book 5 passage comes as part of the assertion that the world is subject to death.

[70] For difficulties inherent in allaying a fear of death, see Reinhardt (2002), 291-304.

The language used in each passage which centres on air (wind being a type of *aer*) obviously brings to mind another element, water.[71] In the Book 5 passage, *fluit* (5.275), *mare* (5.276), *fluentis* (5.277), *fluere* (5.280), *liquidi fons* (5.281) and *inrigat* (5.282) all lead the reader to think of water.[72]

This is strikingly similar, not only in vocabulary and imagery, but also in terms of the argumentative context, to the passage in Book 1 (1.290-7), where Lucretius compares wind to rivers in a simile, and argues for continual resolution of elements, in an assertion that there are atoms though they are invisible. The passage also defends the principle that 'nothing is reduced to nothing'. The simpler premises from Book 1 may be reapplied through internal allusion to the more complex arguments about resolution in Book 5.[73] Further, the fundamental idea from Book 1 that nothing is reduced to nothing (and nothing is created from nothing) is recalled in the Book 5 passage about the death of the world. As in the world of basic particles and complex structures, basic premises are built upon and inseparable from more complex arguments.

I have mentioned above the idea that the cumulative nature of arguments in *DRN* may reflect the world's construction from simple parts which combine and accumulate to create related, and often more complex, end-products. In part of his syllabus of Book 5 Lucretius tells the reader his plans for the refutation of a divine creation of the world and also for its natural birth and inevitable death.[74] The

[71] Apparent wordplay between *flamina ferri* (1.290) and *flumen* (1.291) emphasises the play between two other elements: fire and water. This is more striking when one considers the word position in the hexameter.
[72] West (1969), 90 shows that light is also expressed in terms of water; he points out that the sun is a fountain in 5.281-2, and that this imagery is seen again in 5.590-603. He argues, 91, for this poetry's use in terms of Lucretius' argument at the time. We might also see something of Lucretius' 'atomistic' language in the proximity of *aer* and *mare* in 5.276, given Lucretius' earlier statements (found in the *elementa* analogies) of the importance of minor changes in atomic makeup to the final product, and given too the assimilation here between water and air.
[73] On which see West (1970), 262-75; Schiesaro (1990), 22-3.
[74] After the proem on man's fears, and Epicurus' knowledge (light) dispelling the darkness of human ignorance, Lucretius reviews his earlier statements that the world is birthly and deathly, and claims that he has 'exsolved' the heavenly phenomena; this builds a connection to his promise to *exsolvere* the

vocabulary here almost exactly anticipates that used in Book 6, when the poet introduces his aim of discussing more celestial phenomena:

> quod superest, nunc huc rationis detulit ordo,
> ut mihi **mortali (1) consistere corpore mundum**
> **nativomque (2)** simul ratio reddunda sit **esse** (5.64-6)
>
> Et quoniam docui **mundi mortalia (1)** templa
> **esse ac nativo (2) consistere corpore** caelum (6.43-4)

The consistency of the language is striking: *constare* or *consistere* is present, as are *corpus*, *mortalis*, and *nativus*.[75] *mortalis* (meaning subject to death) is always placed *before* the adjective *nativus*, which is particularly conspicuous since in actuality Lucretius reverses the plan in his execution of it. Yet still he insists on referring to it in this particular order.

The language originates in Book 2, where Lucretius explains the qualities of the fundamental particles. Here he argues that they cannot be considered to have feeling, since if they had feeling they would be *mollia* as opposed to *solido cum corpore*—and *mortali* and therefore subject to death:

> …….quae cumque videmus
> mollia **mortali consistere corpore** creta. (2.905-6)

Though this example is an outlier, most instances of the phrase assert that various bodies *are* mortal. The repetition throughout the poem of related phrases generates a consistency to Lucretius' assertions of the certainty of death, and that the birth of all things including the earth is a natural one. It also connects the notion of death on a large scale to the resolution of elemental particles into the smallest, immortal ('solid') parts. But as well as generating an apparently simple unity, these lines also combine with the later repetitions of the assertion of mortality which we see in Books 5 and 6,

'knots' of religion at 1.932-4. The full argument for the world's natural birth and its eventual death is at 5.91-508.

[75] This is seen too at 2.1084-9, in the argument for multiple worlds. At 2.1084-8 the reader is told that *caelum...terramque et solem lunam mare, cetera* 'consist of a body which had a birth', *nativo corpore constant*, as well as not being unique, Cf. 1105-1143 for the birth of the world. For the death of the world see 2.1145-5.

accumulating in some sense, as atoms do in reality to create a more complex idea or structure.[76]

A principle of mortality is rejected for the most simple compound, the atom, at 2.905-6, but applied to the entire world in Books 5 and 6 (especially Book 5 where the argument for the world's subjection to death occurs). The use of matching language to describe the complex structure of the world, which is ultimately made of atoms which are not of mortal body, might be considered simple illustration of the affinity between language and world. The simple premise that, while small bodies resolve into smaller ones, atoms are ultimately not resolved any further, is applied to something more complex later in the poem. The result is that a relatively simple argument about the 'solid' nature of the smallest parts, but the 'soft' nature of larger parts, becomes a more complicated one. Without the earlier, simpler, statements of resolution or lack of resolution, many a reader would doubtless find death on a large scale (particularly when it is as large as the whole world) too difficult to comprehend.

This leads us to another cumulative aspect to the interaction between Books 2, 5, and 6. Books 5 and 6 depend on the reader's understanding of the nature of death and resolution of matter, explained fully in the first two books of the poem. Simple precepts must be applied to arguments more difficult to comprehend. This is something which Lucretius says explicitly at 2.167-76: he makes it clear that it is first necessary to understand matter, before one can comprehend that the gods did not make the world.[77]

Secondly, the notion of mortality, seen alone at 2.905-6 is eventually combined explicitly in Book 5 with the idea of having a natural birth (that is, not being created

[76] The repetition in general also places these more basic ideas in 'common ground', so that the reader is inclined to simply accept the statements of natural birth and inevitable death, as I discuss above, pp. 184-5. This 'common grounding' repetition has the effect of making space in her mind, as it were, for the other matters Lucretius discusses at the point of repetition.

[77] Here, among other connections to Book 5, we see the exact repetition of the essence of Lucretius' anti-creation argument: *tanta stat praedita culpa* (2.181; 5.199).

by divine power), and before that, at 2.1105-74, birth and death have been seen one after the other, if not yet argumentatively intertwined, as they will be in Book 5.[78] A simple principle is combined with another idea also seen earlier in the poem, to create a more involved, intricate argument: the elements of the poem combine in this case to create a more complex product.

The quotation above from Book 2 (2.905-6) questions only the *mortalis* nature of the atoms,[79] while the passages from the later Books 5 and 6 expressly speak not only of the *mortalis* nature of the *corpus* (of the world), but also of the fact that it is *nativus*. The description of matter in Book 2 which is linked to the idea of mortality is clearly not connected explicitly at this stage to the idea that the gods did not create the world, while in Book 5 the notion of birth (that is, *not* divine creation) and death and mortality (or resolution of matter) come firmly as a pair. I suggest that this is because Lucretius knows well that for ideas more difficult to grasp (such as the anti-creation argument) simple arguments more easily accepted must be supplemented and accumulated. Two difficult ideas must be seen separately, at least initially.

In order to make the argument that the world had a natural (not divinely caused) birth more easily acceptable, Lucretius mentions only mortality where he is explaining the various qualities of atoms: as difficult to envisage as it is, the idea that larger particles all eventually resolve into their residual (permanent) parts, is not a particularly threatening one. Here in a sense Lucretius uses difficulty of comprehension of unseen particles to his argumentative advantage.

[78] In Book 1 we see the idea that nothing can be created from nothing (1.150, 1.155-6, 1.205, 1.543-4). At 1.150 the word *divinitus* makes the statement (*nullam rem e nilo gigni divinitus umquam*) mean not only that nothing is born from nothing, but crucially that nothing is born from nothing *through divine action*. As I argue above, 4.2.2.1 the later repetitions, though they omit the word *divinitus*, must recall the precise statement from 1.150, given the closeness of the repetitions. I also argue for reflection of reality in the text in this case, given that Lucretius has removed the divine from his account of birth, and they are also absent, according to Lucretius, from the world itself.

[79] See Bailey (1947), *ad loc.* for an explanation of the issues both textual and interpretative surrounding these lines.

The idea of natural birth must nonetheless be particularly unsettling, necessitating as it does the removal of the divine from any scheme of production of matter, and by necessity, also from the origin and development of man and his world. In Book 5 Lucretius eventually combines the assertion of the world's subjection to death with its natural birth, smuggling the argument against creation at 5.110-234 into an argument where it does not logically belong.[80] Lucretius understands that the natural birth of the world is not an easy one for the reader to accept, especially given mythological accounts.[81]

The concept of death is also difficult for the reader, but arguably less so if it is gently introduced as a resolution into constituents. The allusion to the idea of the breakdown of particles (though the mortality of atoms is actually rejected) at 2.905-6, before it is combined later in the book with the notion of mortality, and connected to the full statement and description of the world's eventual death in Book 5 (5.235-415), is probably intended to render the notion of the inevitable death of the world less threatening.[82]

It is also possible that only the mortal state of the *corpus* (as in particle) is alluded to in Book 2 because Lucretius knows that he will add to this idea later in the poem. The reader has already been prepared for the idea that the world had a birth and not a creation, in the repeated statements that nothing can be created from nothing. But she has not received a full explanation: she has been drip-fed. In Book 5, Lucretius mentions explicitly the death of the world before embarking on an expansive description of the world's birth and reasons against belief in a divine creation (5.235-415).

[80] I see this as rhetorical strategy as opposed to digression as it is commonly viewed.
[81] For myth proper, see, e.g. Hes., *Th.*; for philosophical 'myth', see, e.g. the account in Plat., *Tim.* 27c1-31d1.
[82] Surely too the death of the person.

Finally, an element of accumulation in the complexity of the argument may even be seen in the repetition of one word: *corpus*. The *corpus* of the earlier books is the atom or a small particle; later, the word is expanded to mean the entire world (and in between, it is the human body). While minimal parts are everlasting, the idea of the death of smaller particles is applied to a much larger body later on in the poem, when the reader has grasped the first premise of resolution.[83]

With this example of the idea that bodies of various sizes have had a birth and will have a death, I hope to have illustrated an example of internal allusion which creates a broad unity of argument across the poem, but which, like the atomistic world, also increases in complexity.

The atomistic structure of the world is portrayed in the text in another way. The accumulation of language and argument—just as atoms and smaller particles accumulate to form more complex substances—is illustrated in the connection between the detailed account of the world's death in Book 5, and the allusion to it at the close of Book 2. The detailed emphasis of the fact that the world is subject to death at 5.235-379 and the description of this eventual death at 5.380-415 certainly builds on what was seen earlier at 2.1144-1174.[84] We see more specific description of Lucretius' 'emphatic generalization', as Cox put it, that *omnia paulatim tabescere* (2.1173) in Book 5, where the four elements destroy each other in turn (5.247-317).[85] And so there is a build-up from Book 2 to Book 5. Book 2's rather abrupt statement of the future ruin of the world in which we live is clearly not enough for the reader: this is hardly a comforting idea, and is one which must be expanded upon later in

[83] What is more, one might say—though this might be stretching the interpretation too far again—that the repetition (both of *corpus* and the other linguistic repetitions) draws attention to the fact that the process is precisely the same, regardless of the size of the *corpus* which is resolving or dying.
[84] One might also consider that it is a particularly large-scale version of the strategy described by Büchner (1936), 29-30, in which Lucretius includes a conclusion to an argument as part of his series of arguments to prove that very point. In the same way, the conclusion later described and argued for in Book 5 is pre-empted at the finale of Book 2.
[85] Cox (1971), 12.

Book 5 (5.235-415):

> Sic igitur magni quoque circum moenia mundi
> expugnata dabunt labem putrisque ruinas. (2.1144-5)

The idea of an old and weary Earth preempts the fuller description of its weariness: *spatio aetatis defessa vetusto* (2.1174; 5.827), and we are told of the earth's youth in producing life, an idea which will recur in Book 5 (5.772-924). These statements appear in Book 2 as preparations for a later, fuller account which can allow the reader to truly understand the nature of her world.

The argument is made more complex by the combination of the notion of the world's eventual death with other statements and arguments. First, the world's mortality has been connected, after Book 2, to the mortality of the human body and soul (dealt with at length in Book 3).[86] Secondly, mortality is linked to birth, and then to the anti-creation argument in Book 5. Lucretius immediately follows the account of particle dispertion, which happens at the point of the soul's death, with a description of how the mind is born with the body (3.445-58). This passage at 3.445-58 places particular emphasis on the relationship between birth and death, arguing that because the mind is born and grows with the body, it is natural too that it should die with the body.[87]

This connection between birth and death makes the original statement of the world's gradual decay more complex: Book 5 combines both the original statement from the end of Book 2 with the idea proposed in Book 3 that birth and death are part of the same process and in fact exist in a constant, repeating cycle of combination and dispersal of particles. This creates an argument which he has perhaps been building

[86] And in particular at 3.417-829.
[87] Even the assertion of the death, and birth, of the soul, might be seen as reflecting (Lucretius') reality, in which all particles are part of a cycle of assembly and dissembly: the account itself is rather cyclical, beginning as it does with the argument for mortality, proceeding to discuss birth, and then returning to death. The same might be said of Book 5's arguments for the mortality of the world and his account of its birth. After these arguments, Lucretius returns to describe the world's death in detail, just as in Book 3 he returns to discuss the mortality of the soul.

up to: that the world was not created by divine power, and that as all matter, it will eventually be destroyed and resolved into its smallest parts.

Arguments in *DRN* are constructed (repeated and accumulated) in the same way that Lucretius argues matter is. The poem is built from the ground up: from elementary particles into a complex argumentative structure, just as atoms combine to create the *moles et machina mundi*.

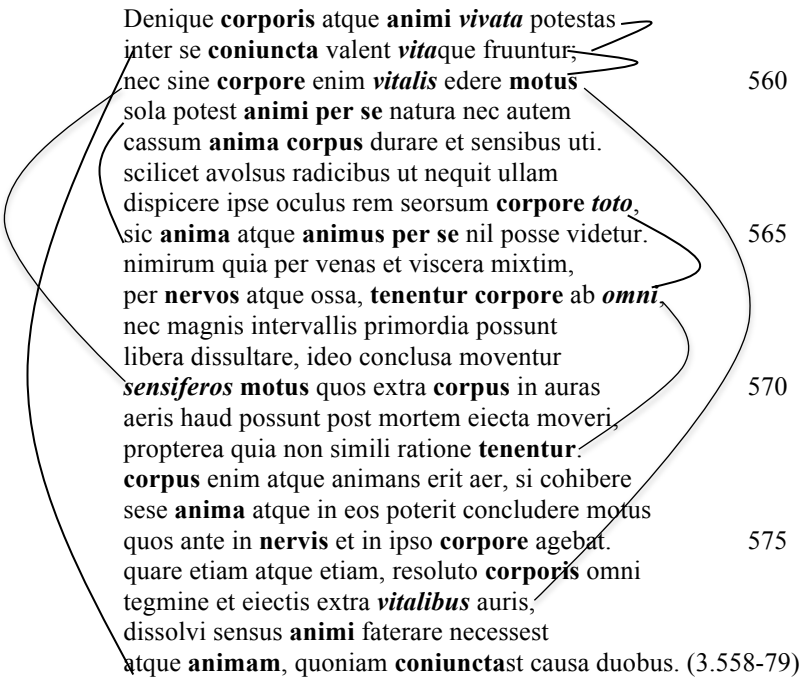
5.3 Picturing the *rerum natura*

This section aims to use examples to give a general picture of the ways in which Lucretius creates images in his text of the world he describes, through internal allusions and connections.

5.3.1 Mind and Soul

There is observable repetition of important vocabulary where Lucretius argues that body and mind exist only as a unity.[88] This passage is all part of the broad argument that the spirit and mind are mortal (found in its entirety at 3.417-829).

[88] See above, p. 23, fn. 55 for emphatic repetition.



Only the vocabulary which is crucial to the argument is repeated: *anima*, *animus*, and *corpus* are seen at the highest rate, while words pertaining to existence or life (cognates of *vivere* and *vita*) are repeated less frequently. Also repeated is *tenentur*, which refers at each occurrence to the fact that the *primordia* are 'held in' by the 'whole body'. *coniuncta* occurs at the start and the end of the section. These particular repetitions, especially of *anima*, *animus*, and *corpus*, might be said to show the connection between these components of the human. Repeating these key words in close conjunction with each other may constitute an attempt to build associations between them, and thus to allow the reader to similarly associate these parts of the human in their mind, and see them as being closely connected in actuality as in the text.[89]

It is possible that in lines 560-2, where Lucretius states that neither the mind (*animus*), nor the body (*corpus*), can show *vitalis...motus* without the other, and that the body cannot endure nor use the senses without the spirit, the placement of the

[89] For building of associations as didactic strategy, see above, Section 4.2.

'crucial' vocabulary is intended to reflect his statement. *corpore* is alone in line 560, where Lucretius asserts the impossibility of the body's vital movements if it is isolated (that is, without the mind). Likewise, *animi* is seen without *corpus* in line 561, where Lucretius says the same vice versa of the mind. The two are placed together (though we have *anima* rather than *animus*) in the next line, 3.562. This is the final line of this specific argument, perhaps representing the reality: 'but, they *do* exist together'.

One might note too that in the first line of the argument, 558, *corpus* and *animus* are seen together, which gives the five lines a small-scale ring-composition. These repetitions and allusions and even allusions 'under erasure'[90] can also be seen as reflective of the statement made at that point. Lucretius states at the start of the argument the power that body and mind have *only when seen together*. Lucretius' rejection of the idea that either mind or body can show *vitalis motus* without the presence of the other is illustrated not only argumentatively but also physically by the repetition and various absences of *corpus* and *anima*.

This same reflection of unity may be seen at 3.565 where *anima* and *animus* are seen in the same line as Lucretius asserts that they too cannot act if they are isolated from each other. Juxtaposition here generates unity in the text, and mirrors Lucretius' description of reality. Finally, the substitution I mention above of *anima* for *animus* at 3.562 might reflect the affinity between soul and mind: so intertwined must they be that one might even take the place of the other in the text.[91]

[90] For which see above, p. 136, fn. 134.
[91] In this specific suggestion I may be guilty of what Friedländer (1941) seems to fear in his article: of seeing too much. But, as he says, 24: 'Our interpretation may and perhaps must overemphasize the facts. But it is better to run this risk than to close ears and eyes to the reality.'

5.3.2 Flesh and Blood

I offer now a brief example as further evidence of text-world mirroring. The *primordia* are 'held in' by the 'whole body', mixed in through the *venas et viscera... nervos atque ossa* (3.566-8). The reader does not find out that Lucretius is talking of the *primordia* until after he is told what they are held in by and mixed in with: *primordia* comes at line 568. This could be intended as a reflection of the fact that one could not (theoretically) find the *primordia* without first considering the veins, flesh, sinews, and bones, again because of their interconnectedness with these parts of the body. The fundamental parts of the mind and soul are both bodily and inseparable from their larger components.

5.3.3 *varios linguae sonitus*

More reflection of the world may be seen in the explanation of the origin of language in Book 5.[92] The phrase *varios linguae sonitus...mittere* in the first two lines of the argument for language's natural development (in full at 5.1028-77) is almost repeated word for word—and it is repeated in sense—at line 1044, with *varios sonitus emittere linguae*.[93] In addition to the use of the verb *mittere* at 5.1028, and 5.1044 (where the compound *emittere* is used), there is also correspondence with the e-prefixed verb *exprimere* at 5.1029.[94] 'Significant' vocabulary recurs: *res* (5.1029, 1051, 1052, 1058, 1062), *vox* (5.1044, 1046, 1055, 1057, 1058, 1060, 1066, 1070), *sonitus* (5.1028, 1044, 1055, 1065), *lingua* (5.1028, 1031, 1044, 1057, 1067), *varius* (5.1028, 1044,

[92] Reinhardt (2008a), 127-40 takes the reader through Lucretius' account of the origin of language, and deals with the potentially problematic multiple-correspondence analogy between human and animal vocalisation at 5.1028-40. He argues that learning to control speech can be considered separately from the emergence of names.
[93] Cf. 1.812- 816, 1.1024-5 for natural development.
[94] On which see Reinhardt (2008a), 130. Reinhardt uses multiple-correspondences to explain that *sonitus linguae emittere* and *nomina rerum exprimere* may be seen as different 'levels' of the same phase of development (when compared with the *gestus* of the child becoming a finger-point; and given too that the more vague *sonitus* is picked up as the more specific *nomina*).

1058, 1060), *hinnitus* (5.1073, 1077) and finally *mittere..e* and *emittere* (5.1028, 1044).[95] It is reasonable to conclude that repetitions in some of these cases must occur partly through pure necessity in order to convey the argument.[96] But their repetition also draws attention to the idea of the emergence of names for things—names require repetition to become names.

Verbal connections and repeated vocabulary-items which are significant but often altered in form, case, and position allow Lucretius to illustrate the various sounds which were made in the process of establishing these names (in particular *nec ratione...ulla* (5.1052, 1054) and *non alia ratione* (5.1030), *varios linguae sonitus* (5.1028, 1044), *nomina rerum* (5.1029, 1051)). Variety may be viewed as reflecting the sounds which were more random at one point according to Lucretius' theory of language, and then came under control.[97]

Finally there are also some striking 'patterns of sound' here: in *blande* depicting the affection of the mother licking her puppies, there is the combination of *lingua* and *lambere*, which possibly suggests and reflects the process of development of vocabulary as reflective of meaning.[98]

5.3.4 'Elemental' Destruction

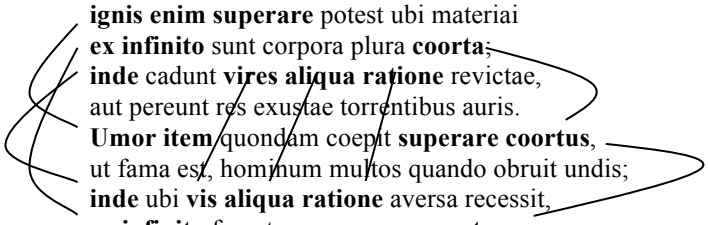
At the end of the account of the world's demise (5.380-415), which in its entirety asserts both that the world is susceptible to death and that it will die,[99] there is a

[95] See p. 3, fn. 9.
[96] See above, Section 0.1.
[97] As explained in Reinhardt (2008a), 127-40. Linguistic variation here might also be seen as *expolitio* (*Rhet. Her.* 4.42.54). See above, 3.2. The author of *Rhet. Her.* cautions against too much repetition (4.12.18), which may also have influence here.
[98] It is also onomatopoeic. Friedländer (1941), 16-7 suggests a connection between Lucretius' language and the theory of linguistic development, noting that 'one directly experiences the natural process'. Lucretius' use of pseudo-etymology would be an interesting area for further study.
[99] For a general point about rhetoric and poetry: Classen (1968), 99-100. Classen views anything with *lepor* as rhetorical, and so Lucretius' poetry for him is persuasive by these means.

description of the four elements at war.[100] The translation below should illustrate at a glance the rate of repetition at this point:

> For flame is able to **overpower** when bodies of material
> **driven together from the infinite** are increased;
> **from where strength** conquered **somehow** falls,
> or everything burned up by scorching blasts dies.
> And water begins to **overpower driven together**,
> as is the story, when once waves flooded the crowd of men;
> **from where strength**, turned aside **somehow**, receded,
> **driven together from the infinite**,
> and the rains stopped and rivers reduced their force. (5.407-15)

This passage displays a wave-like narrative of repeated rising and falling, where, on the one hand, *ignis* conquers (5.407-8), then its *vis* falls (5.409-10), and on the other hand, *umor* prevails (5.411-2), and then its strength too fails (5.413-5). The structure created by the repetitions befits the sense of one element triumphing over the others, and then another in turn destroying other elements, and so on. The repetitions of individual words, or on one occasion phrase-shape (*ignis enim* (5.407) and *umor item* (5.411)), also create a circular image: the repetitions make a whirl of an outer circle and then an inner circular structure visible in the verses:



> **ignis enim superare** potest ubi materiai
> **ex infinito** sunt corpora plura **coorta**;
> **inde** cadunt **vires aliqua ratione** revictae,
> aut pereunt res exustae torrentibus auris.
> **Umor item** quondam coepit **superare coortus**,
> ut fama est, hominum multos quando obruit undis;
> **inde** ubi **vis aliqua ratione** aversa recessit,
> **ex infinito** fuerat quaecumque **coorta**,
> constiterunt imbres et flumina vim minuerunt. (5.407-15)

The physical manifestation of the sense of the verses through repeated vocabulary—or small-scale internal allusion—not only illustrates a certain unity to the passage, but also shows the artfulness with which Lucretius attempts to mirror in his text the world he describes. There are reminiscences here of the Hellenistic technique of *technopaignia*, where poems which are intended to be read on the page reflect their

[100] See West (1969), 51-3 on 5.396-410, and particularly for hints at the correspondence between the Phaethon myth and the rationalistic explanation. Cf. 103: 'Lucretius did not believe these myths, but…he could see that they corresponded to some facts of history or of the human situation.'

subject matter through their shape on the page.[101] This is certainly a didactically useful strategy for Lucretius to have picked up; it inevitably adds to the vividness of the text, but is also artful and delicate. Such attention to aesthetic matters might be considered an extension of Classen's idea that the poetic is in itself rhetorical: it persuades simply through its aesthetic appeal to the reader.[102]

5.3.5 Reality Reflected: deleting gods

The principle that nothing is ever produced from nothing by divine power: *nullam rem e nilo gigni divinitus umquam* (1.150) has been discussed before (4.2.2.1). This is partly because of its fundamental nature in relation to much of the rest of the poem—as Lucretius shows us, what is worth saying is worth saying more than once. It forms the first scientific argument in the poem, and occurs immediately after the proem. To argue that *nil posse creari* | *de nilo* (1.155-6), Lucretius says that everything must come from some source or seed and reduces the argument to absurdity, claiming that if this were not the case, men would arise from the sea, trees would alter their fruit, and there would be no fixed season or order (1.159-83).

Through this statement, Lucretius removes the power of creation from the gods. The reader knows having read this that divine power is not the cause for unseen happenings. Lucretius is explicit in his motive, stating that a fear holds all mortals: without awareness of the means by which particular phenomena occur, they attribute them to a god: *quod multa in terris fieri caeloque tuentur* | *quorum operum causas nulla ratione videre* | *possunt, ac fieri divino numine rentur* (1.152-4).

[101] For the strategy see the monograph by Luz (2010); the chapter on technopaignia proper is at 327-54.
[102] Classen (1968), 98-9. This is comparable to the argument Luz (2010), 327-54 makes about the technopaignia or *carmina figurata*: she suggests that the shape of the poems helps convey the idea therein, but also that their shapes can also hold the solution to the puzzles they contain.

The amount of repetition is remarkable; but what is perhaps more noticeable is that after the lines which introduce the argument and summarise man's mistaken beliefs (1.146-58), the divine does not reappear. Divine power is mentioned three times in this short passage:[103]

> principium cuius hinc nobis exordia sumet,
> nullam rem e nilo gigni **divinitus** umquam.
> quippe ita formido mortalis continet omnis,
> quod multa in terris fieri caeloque tuentur
> quorum operum causas nulla ratione videre
> possunt, ac fieri **divino numine** rentur.
> quas ob res ubi viderimus nil posse creari
> de nilo tum quod sequimur iam rectius inde
> perspiciemus, et unde queat res quaeque creari
> et quo quaeque modo fiant opera sine **divom**. (1.149-58)

The point of 1.150 is repeated very soon after: *opera sine divom* at 1.158.[104] After these ten lines, in which the gods are mentioned explicitly in three, they are not mentioned again.[105] For Lucretius, this reflects reality: his last mention of the gods here is to state that each thing comes about *opera sine divom* (1.158). Lucretius mirrors reality with what is in his poem, and even connects text with world. The absence of the gods in the language reflects their absence in earthly affairs, but also the belief or understanding of the reader as they learn from the poem.[106] Additionally, where the gods do appear, they are negated. The gods should be absent from the reader's understanding of the world, if not at this stage of the text, in the lines which follow.

[103] The other repetitions which occur are: *res* (1.150, 1.155, 1.157); *nil* (1.150, 1.156); *gigni*/ *creari* (1.150, 1.155, 1.157); *fieri* (1.152, 1.154, 1.158); *tueri*/ *videre*/ *perspicere* (1.152, 1.153, 1.155, 1.157); *causa*/ *modus* (1.153, 1.158); *posse*/ *quire* (1.154, 1.155, 1.157).
[104] Cf. Classen (1968), 81 discusses the argumentative structure of the passage, and especially the lines which follow at 1.159-214. He explains that the beginning of this section begins with the form, 'if P then Q; Not Q therefore not P.' On this form of argument, which was later called *modus tollendo tollens* or 'denying the consequent', cf. Fowler (2002), on 2.112-41.
[105] The (repeated) claim might be restated in the form: 'not P; people think that P; but not P'.
[106] For the idea of 'predicting the mind of the reader', see above, Chapter 4. In general, such a view of passages like this should illustrate that the 'scientific' sections of *DRN* are just as highly wrought as the so-called 'purple passages'. This suggests that the dichotomy as previously seen between the 'dry and dusty' parts of the poem and the poetical parts is artificial and does not give due credit to the art behind the technical sections.

If one looks at later lines at 1.498-505 and 1.623-34, one might note the presence of *creata* at 1.502 and *creatrix* at 1.629. At 1.501-2, the *semina* and *rerum primordia* are responsible for the 'creation', while at 1.629 *natura* is the creator:

> sed quia **vera** tamen **ratio** naturaque rerum
> cogit, ades, paucis dum versibus expediamus
> esse ea quae solido atque aeterno corpore constent, 500
> semina quae rerum primordiaque esse docemus,
> unde **omnis rerum** nunc constet summa ***creata***.
> Principio quoniam duplex natura duarum
> dissimilis rerum longe constare repertast,
> corporis atque loci, res in quo quaeque geruntur, (1.498-505)
>
> Quod quoniam **ratio** reclamat **vera** negatque
> Credere posse animum, victus fateare necessest
> esse ea, quae nullis iam praedita partibus exstent
> et minima constent natura. Quae quoniam sunt,
> illa quoque esse tibi solida atque aeterna fatendum.
> denique, si minimas in partis cuncta resolvi
> cogere consuesset **rerum natura creatrix**,
> iam nil ex illis eadem reparare valeret,
> propterea quia, quae nullis sunt partibus aucta,
> non possunt ea quae debet genitalis habere
> materies—varios conexus, pondera, plagas,
> concursus, motus, per quae res quaeque geruntur. (1.623-34)

But we can recall the proem to *DRN* 1, where Venus is clearly the *creatrix*: Lucretius depicts her as *genetrix* in verse 1, and asserts that through her (*per te*) every living thing (*genus omne animantum*) is born (1.1-5):[107]

> Aeneadum ***genetrix***, hominum divomque voluptas,
> alma Venus, caeli subter labentia signa
> quae mare navigerum, quae terras frugiferentis
> concelebras, per te quoniam genus omne animantum
> concipitur visitque exortum lumina solis (1.1-5)

The divinity as creator has been replaced. If we compare the three passages together, it does not seem insignificant that *vera ratio* will occur in the later passages where the atoms replace Venus as the generative principle of the world.[108] The presence of *vera ratio* at this stage of the text reflects not only the fact that Lucretius here has scientific

[107] Cf. 1.21-3.
[108] Esp. the use of *semina* (1.498-505), which one might compare to the biological imagery in the proem. It is difficult to say whether this makes the removal of Venus at 1.498-505 more subtle or more stark.

explanation in mind, but could even reflect the mind of the reader.[109] At first, the reader believes that Venus is the *genetrix*; 500 lines on, she knows that this is not the case.[110] One may see a subtle effect in the first instance of *vera ratio*, at 1.51. Here, Lucretius urges the student to apply their mind to *vera ratio*, and hereafter, the poem, and the perspective of the student, will radically change.

5.4 Conclusion

In this chapter I wanted to corroborate Friedländer's suggestion of atomistic language in *DRN*, but also that his study, which was intended as investigative, might be supplemented.

I aimed to show that Lucretius uses language in a way which not only explains clearly his Epicurean vision of the world, but which also makes the vision as vivid as possible for the reader. The *elementa* analogies I discuss in Section 5.1 form part of the evidence for this aspect of Lucretius' intention. The analogies point to the idea of similarity of elements, and diversity of the end-product. Lucretius shows this to be the case in his language, with letters, words, phrases, or whole lines and passages. Slight rearrangement produces a different immediate argumentative outcome. At the same time, the message is ultimately unified: there is order in what might seem chaotic. The frequent repetition of verbs to do with sight in the *elementa* analogies (for example, *multa vides enim*) may validate Robert Wardy's idea that unseen particles must be rendered visible if their existence is to be non-threatening, and, I would argue,

[109] This idea of the intellectual progress of the reader has much in common with Schrijvers' description of this instruction as a journey (1970), 25; for the path metaphor, see also Volk (2002), 89-93. Cf. also above, 4.3.
[110] Cf. Thomas (1999).

persuasive.[111] Lucretius applies the dominant idea behind his *elementa* analogy (that basic elements in combination, depending on their arrangement, can create manifold results) to his text using pervasive repetition, reconfiguration, and rearrangement.[112] In so doing he creates an 'atomistic' text.

In 5.2 I showed that Lucretius' choice to repeat but also to vary the names and discussion of fundamental particles and their properties is meant to reflect the variety of atomic bodies in actuality. I also explained that some of the language Lucretius uses is meant to convey multiple meanings, which also reflects this variety. I also explored how Lucretius builds simpler premises into more complex, and varied, ideas: just as simpler compounds combine to form more complex structures in the world Lucretius describes. Lucretius' argumentative strategy depends on accumulation of interdependent arguments. These arguments which are often built on more basic premises reflect the reality of the Epicurean atomic structure of the world. (This is related to what is explored in 4.2 but there I focus on the other psychological, didactic effects apart from imaging of the world). Lucretius may use this particularly atomistic structure of argument because he believes that a persuasive argument must be formed upon basic, well-learned, easy-to-grasp principles (something in line with Epicurus' extant writings).[113] But he may also have chosen to use the strategy because he so firmly believes in this structure of the world that he thinks that his poem as a part of it, and as something which aims to represent it as accurately as possible, should also encompass it.

Finally, in Section 5.3 I used further examples in which text reproduces the *rerum natura* to show how broadly this technique of reflection via repetition extends

[111] Wardy (1988), 112-28; cf. Lehoux (2013), 134-5.
[112] The fact that repetitions are shown again and again to stress differences as well as similarities (on which, see e.g. above, 5.1) illustrates the suitability of the technique for what Lucretius wants to achieve.
[113] See above, pp. 143-5.

throughout the poem. The strangeness of the Epicurean world which Wardy indicates and which must have been clear to Lucretius may form the background for the strategy which I outline in the chapter in general: in painting such a vivid picture of the world for his reader, Lucretius helps his reader see the invisible and believe the incomprehensible.

Conclusions

> '"Only connect" is the legend on the title page of E.M. Forster's "Howards End". Lucretius was connecting all the time and if we are to read him justly, we must not miss the associations he is always seeing'
>
> David West (1969), 93.

This thesis set out to explore the supposed 'problem' of the manifold verbal repetitions in Lucretius' epic, *DRN*. I tried to illustrate not only the interpretative helpfulness of repetitions for reading Lucretius' poem, but also to reveal the remarkable complexity of the intratextual network which Lucretius uses internal allusions and connections to build. I hope to have supplied counter-arguments to those who would dismiss or otherwise marginalise repetitions. But I also wanted to supplement the body of scholarship with a much-needed treatment of repetition as didactic and rhetorical strategy, as opposed to the other ways it has been viewed. I tried to show the sophistication of even ostensibly simple reiterations of vocabulary, and to propose that for Lucretius, repetition and internal allusion is a crucial part of the artful, polished way in which he conveys, and convinces of, his message.

Chapter 1 aimed to establish repetition in the didactic-epic tradition before Lucretius as meaningful and reader-focused. It also attempted to deal with the relatively recent idea that Lucretius' repetition is formulaic in nature and has less of a didactic function than a role in helping the author in composition. Through comparative analysis of the repetitions and internal allusions seen in Lucretius' didactic-epic predecessors, the chapter shows that in fact, already in Homer, one can see that repetitions play a much more complex role than this, and that Lucretius, as a reader of Homer and the epic poets, is clearly emulating these writers in different ways, taking something from all, except Apollonius. There are strikingly few repetitions to be found in the *Argonautica*, and clearly Apollonius attempts to create

distance between traditional epic and his own work. In turn, Lucretius distances himself from Hellenistic aesthetics to return to the epic style proper. In general Chapter 1 gave initial corroboration to the notion that repetition in Lucretius, having been subject to years of scholarly criticism and neglect, is part of a complex strategy which is reader-focused, not author-focused. The conscious choice of a return to the epic style is in a sense didactic, since in returning to the traditional style and distancing his poem from the contemporary post-Hellenistic sensibilities, the strategy disguises *DRN* as a familiar friend, hiding the radical contents in epic clothing.

The conviction that *DRN* was left unfinished holds an important place in the history of interpretation of Lucretius. This widespread belief explains much of the scepticism towards the idea that repetitions are genuinely intended by Lucretius to be part of his text. Repetitions are treated with scepticism because of subscription to the idea that *DRN* is incomplete, but in turn, those who adhere to the idea of incompletion are also ready and willing to dismiss and delete repetitions, especially long ones. Chapter 2 tackled the vexed question of how complete *DRN* is, in an effort to show first that the poem need not be considered as incomplete as has previously been thought, that the internal evidence often cited in favour of incompletion can be otherwise explained, so incompletion should not be cited as reason to ignore or delete repetitions, and moreover, repetitions must not be held up as part of the evidence in any case. Part of the chapter (2.2) uses extensive internal connections between the ending of the poem and other parts of the text, to show that the finale of the poem—often supposed to be proof of incompletion—is indeed a satisfactory ending which unites many closural themes running through *DRN*. Long repetitions are shown in 2.3 to play an important role in *DRN*, which adds to the case that the chapter makes that they should not be marginalised or dismissed. The analysis of illustrative long

repetitions also challenges the view that they are later interpolations, not written by Lucretius.

Although some rhetorical aspects of *DRN* have been the subject of study, the notion that repetition might be rhetorical in *DRN* has not been explored. Chapter 3 considers the rhetorical functions of Lucretian repetitions and internal allusions. It looks at strategies outlined in rhetorical handbooks and used in Cicero's speeches to investigate the rhetorical background to Lucretius' strategy of building internal connections in his poem. The chapter finds that some repetitions in *DRN* perform in a way which is identifiable with rhetorical instruction, and that some are modifications of, or deviations from, these standard rhetorical practices. The chapter includes study of the recurrent addresses to the reader, and proposes that these are part of an attempt by Lucretius to break the boundary between his own fictive and didactic world of the text and the 'real' world of the student. In his own version of repetitive *metalepsis*, Lucretius achieves a blurring of the boundary between the two worlds. Breaking the *moenia mundi*, Lucretius allows the reader to more easily apply lessons from the text to her own existence.

Chapter 4 explored some examples from the network of internal connections, to try to show that repetitions and allusions can have didactic and even psychological effects. The intratextual network reveals the close connection between rhetoric and didactic in Lucretius, which may be a worthy area for further study, not only of Lucretius but possibly also of other authors. The chapter showed that, although many repetitions—of different sizes—exhibit a 'primary' function of basic emphasis which must occur before any more sophisticated effect is had on the reader, even those repetitions which are ostensibly the most simple have a complex effect. Emphatic repetitions not only emphasise the topic or subject matter which is reiterated, but they

also render this repeated item ‘common ground’. Space is then created, so to speak, in the reader’s mind for supplementary information, or for a more complex idea. I also proposed that even Lucretius’ argumentative structure is dependent upon the repetition and reapplication of fundamental ideas and concepts to later, more complicated ones. This cumulative argumentative structure increases the ease of learning for the reader as well as simultaneously and continuously stressing the basic principles at the root of it all. Internal allusion also encourages self-consciousness on the part of the reader. Just as an author can ‘correct’ another text by alluding to it, so too Lucretius self-corrects, and in so doing, reveals to the reader her previous misconceptions. Aware of her previous ignorance on being persuaded of the correctness of a particular idea, the reader is consequently aware of her progress. Though potentially unsettling, this arguably induces the reader to continue with the lessons of *DRN*, given their effectiveness.

The fifth and final chapter proposed that internal allusions and repetitions on many different scales and in different ways ultimately reflect the atomistic structure of the world Lucretius describes. I argued that this is a broad-reaching strategy, and made a case that the five instances of the analogy between letters of the alphabet and atoms in themselves exhibit the very qualities they describe, in an extension of the analogy on a larger scale. Lucretius claims in the *elementa* analogy that similar elements, when rearranged, have the potential to create different things: animals, trees, a river, or the moon. In just the same way, he says, similar letters can be rearranged and yet create quite different words. I propose that just as the analogies describe, they themselves are rearranged or re-ordered in the text, by virtue of being in a different position in *DRN* but also by being supplemented, or occurring in slightly different forms. They contain many shared elements, and yet the reality they create is quite diverse: their

immediate textual surroundings differ to each other. Yet there is an eventual harmony in their broader arguments: all contribute in the end to an argument in favour of the atomistic structure of the world, and against the notion of intelligent design or creation. Throughout *DRN* Lucretius reveals a unanimity in his message. Perhaps this message is extended to his vision of the world: a picture of ordered chaos.

I made some suggestions on Lucretius' text where appropriate: repetitions can evidently be used helpfully—with caution—for issues of textual criticism. I did not arrive at any definitive conclusion as to whether verbal repetitions rightfully contain variations: the matter seems to me to necessitate case-by-case treatment, and it does not seem that Lucretius either prefers or avoids variation when repeating himself. Nor am I certain whether variety among repetitions proves or disproves genuineness of a given repetition, especially because some variations are potentially corruptions. As well as in textual matters, I hope to have illustrated the use of repetitions and connections in making sense of difficult or apparently disparate trains of thought. Internal connections in such places in the text also reveal a deeper unity to the poem and its arguments than may be seen without understanding or perception of the intratextual network of repetitions. It is hoped that these arguments, cumulative as they are in nature, may contribute towards a view of *DRN* as sophisticated and highly wrought, even in parts of the text which are still thought to be dryer and duller. The unanimity often revealed behind internal allusions should demonstrate the order in Lucretius' poetic vision.

It was not possible in this thesis to explore all avenues which might have been profitable and interesting. Potential areas for further related research include exploration of the notion that certain narrative or argumentative situations have a predisposition towards repetition, not only in Lucretius but in other authors (for

example, in ritual language or in proems). Related to this, exploration of repetitions and argumentative connections in philosophical texts could profitably gain further insight about rhetorical strategy in philosophy more generally. Further investigation might be made into the psychological research into which I dipped my toes in Chapter 4. Can one apply psychological and pedagogical concepts to other rhetorical strategies? I am interested in pursuing further study of Cicero's use of repetition: I was able only to scratch the surface in Chapter 3. Nor was there space for a comparative study between Lucretius and Vergil's early works, which would be revealing for an understanding of the reception of Lucretian repetitions and internal allusions. Finally, there is still surely much more to be explored as regards the general influence of the rhetorical tradition on Lucretius' *DRN*; and, unrelated to this, potentially also in the ways that repetition might add to an understanding of analogies more generally in Lucretius.

On p. 87 I disputed the existence of perfection in a written text. This thesis is surely evidence of my proposition. But I hope to have in some way shown that even where one sees chaos, there is an order in the midst of it all. The swirling, swerving elements of Lucretius' poem repeat, combine, reconfigure, and rearrange, to explain, convince, persuade, manipulate, and coerce the reader, in the end forming the world of *DRN*, a chaotic, but captivating universe.

Appendix: A Catalogue of Repetitions in Lucretius' *De Rerum* Natura

A Note on the Catalogue of Repetitions

The catalogue was generated by a purpose-written computer programme, for which I record here my thanks to Dan James. Lloyd Elliott also helped with the organisation and presentation of the catalogue. There are several limitations to computer code, which would not exist if the catalogue was compiled manually and which I shall discuss below. There are, however, obvious advantages in that this programme can potentially be used for any texts, and it is inescapably more efficient than compiling a manual catalogue. An inevitable general consequence of such a programme is that inevitably, the programme picks up more repetitions than one might want; on the other side, a catalogue compiled by hand may miss a repetition in human error.

Limitations

Repetitions recorded in the catalogue are limited to repetitions within a line's length, which is an obvious area for improvement on the code. The main reason for this is that the code would take too long to run on my own computer if the code were set up to detect longer repetitions. Multi-linear repetitions can still be seen easily enough in the catalogue, and I have given the multi-linear repetitions in the thesis at fn. 75, p. 119. The minimum number of words to detect a repetition is set at 2. The percentage of similarity can be adapted, and the catalogue here is set at 30 per cent similarity. I found that lower percentages missed repetitions which I perceived, while higher percentages generate much that is not repetition. The code is unable to detect repetitions, of, for example, phrases of multiple words which are separated by other words (e.g. *coniunctus… inter se* and *coniunctus inter se* would be unlikely to be noted depending on the size of separation between repeated words, and will not be detected if *coniunctus* and *inter se* occur on different lines). Lastly, the catalogue lists a repetition at its first instance only, and does not repeat it at the later instance(s).

Adaptations to the Text

I used Martin's (1969) text to generate the catalogue. Since I deviate from him in a few points of the text, I made these adjustments before running the code, so changes I note in the thesis should also be present in the catalogue. Some are simple changes to orthography. They are the following:

Martin's (1969) reading—my reading

1.44 divum – divom
1.45 immortali- inmortali
2.30 rivum – rivom
2.651 neque – nec
4.24 percipis – perspicis
5.128 salso – in alto
5.351 necessust – necessest
5.362 qui – quis
5.361 summa est – summast

Catalogue of Repetitions in Lucretius' *De Rerum Natura*

Initial line of phrase—phrase—all instances of phrase—number of instances

1.1, ['hominum divomque voluptas,'], [1.1, 6.94], 2
1.2, ['Veneris partusque', 'Venus, aut', 'Veneris differre', 'Venus inter', 'Veneris dulcedinis', 'Venus est', 'Veneris blanditur', 'Veneris perrumpere', 'Veneris membris', 'Venus inminuit', 'Venus, caeli', 'Venus ut', 'Veneris res,', 'Veneris res.', 'Venus varia'], [1.2, 1.228, 2.173, 2.437, 3.777, 4.1058, 4.1059, 4.1084, 4.1107, 4.1148, 4.1172, 4.1223, 4.1248, 4.1276, 5.1017, 5.848], 16
1.3, ['quae mare'], [1.3, 5.453], 2
1.3, ['quae terras'], [1.3, 5.655], 2
1.4, ['genus omne'], [1.4, 5.1356, 5.865, 5.902], 4
1.4, ['per te'], [1.4, 1.407, 5.1282, 6.70], 4
1.4, ['quoniam genus'], [1.4, 5.822], 2
1.8, ['aequora ponti'], [1.8, 2.772], 2
1.9, ['diffuso lumine'], [1.9, 3.22], 2
1.10, ['nam simul ac'], [1.10, 3.14], 2
1.15, ['pabula laeta'], [1.15, 2.317], 2
1.16, ['quo quamque'], [1.16, 2.318], 2
1.17, ['ac montis'], [1.17, 5.992], 2
1.17, ['denique per'], [1.17, 6.951], 2
1.20, ['generatim saecla'], [1.20, 1.597, 6.1113], 3
1.21, ['quae quoniam'], [1.21, 1.607, 1.626, 2.512, 4.1092, 4.63, 5.150], 7
1.22, ['nec sine'], [1.22, 3.326, 3.560, 4.810], 4
1.25, ['rerum natura'], [1.25, 1.629, 2.1117, 3.932, 6.646], 5
1.25, ['de rerum'], [1.25, 2.978], 2
1.26, ['tempore in'], [1.26, 3.114, 3.24, 4.775, 4.794, 5.172, 5.878], 7
1.26, ['in omni'], [1.26, 1.337, 4.98, 5.1344], 4
1.28, ['quo magis'], [1.28, 2.197, 4.1185, 5.1146, 5.19, 6.1262, 6.42, 6.473, 6.67, 6.843, 6.920], 11
1.29, ['fera moenera'], [1.29, 1.32], 2
1.30, ['maria ac terras omnis'], [1.30, 5.592], 2
1.30, ['per maria ac terras'], [1.30, 1.340], 2
1.31, ['tranquilla pace'], [1.31, 6.78], 2
1.35, ['atque ita'], [1.35, 2.227, 3.620, 4.249, 4.890, 5.678, 6.201, 6.292], 8
1.36, ['te, dea,'], [1.36, 1.6], 2
1.39, ['ex ore'], [1.39, 5.1133, 6.6], 3
1.41, ['nam neque'], [1.41, 1.532, 2.296, 2.304, 3.381, 3.689, 5.793], 7
1.41, ['nos agere hoc'], [1.41, 4.969], 2
1.44, ['omnis enim per se divom natura necessest'], [1.44, 2.646], 2
1.45, ['inmortali aevo summa cum pace fruatur'], [1.45, 2.647], 2
1.46, ['semota ab nostris rebus seiunctaque longe;'], [1.46, 2.648], 2
1.47, ['nam privata dolore omni, privata periclis,'], [1.47, 2.649], 2
1.48, ['ipsa suis pollens opibus, nihil indiga nostri,'], [1.48, 2.650], 2
1.49, ['nec bene promeritis capitur nec tangitur ira.'], [1.49, 2.651], 2
1.50, ['Quod super est, ae<s at>que aurum', 'Quod super est, ne te in', 'Quod super est, siquis corpus sentire', 'Quod super est, facilest ex his', 'Quod super est, vacuas auris animumque', 'Quod super est, agere incipiam quo'], [1.50, 3.350, 5.1241, 5.91, 6.423, 6.906], 6

1.51, ['adhibe veram ad'], [1.51, 2.1023], 2
1.53, ['prius quam'], [1.53, 3.824, 4.837, 6.917], 4
1.53, ['quam sint,'], [1.53, 3.857], 2
1.54, ['nam tibi'], [1.54, 2.1024, 3.945], 3
1.57, ['natura perempta'], [1.57, 4.40], 2
1.59, ['et semina'], [1.59, 5.660, 6.841], 3
1.60, ['haec eadem'], [1.60, 4.759, 4.955, 5.242], 4
1.60, ['et haec'], [1.60, 3.601], 2
1.61, ['sunt omnia'], [1.61, 3.946, 3.980, 4.392, 5.1391, 5.499], 6
1.61, ['ex illis'], [1.61, 1.773, 2.612, 2.820], 4
1.61, ['corpora prima,'], [1.61, 2.589, 3.438], 3
1.61, ['quod ex'], [1.61, 6.1029], 2
1.62, ['ante oculos'], [1.62, 1.998, 2.113, 2.732, 3.185, 3.488, 3.75, 3.996], 8
1.62, ['Hymenaeis ante', 'Humana ante'], [1.62, 4.1251], 2
1.68, ['quem neque'], [1.68, 6.1250], 2
1.72, ['vis animi'], [1.72, 3.499, 3.748], 3
1.72, ['et extra'], [1.72, 2.155], 2
1.77, ['qua nam sit ratione atque alte terminus haerens.'], [1.77, 5.90], 2
1.83, ['atque impia'], [1.83, 2.622], 2
1.88, ['ex utraque'], [1.88, 5.511], 2
1.90, ['et hunc'], [1.90, 6.604], 2
1.93, ['in tali'], [1.93, 6.815], 2
1.95, ['ad aras'], [1.95, 5.1199], 2
1.96, ['more sacrorum'], [1.96, 2.610], 2
1.96, ['non ut'], [1.96, 3.939], 2
1.98, ['tempore in ipso'], [1.98, 4.1076], 2
1.102, ['a nobis'], [1.102, 2.912, 4.284, 5.107, 6.80], 5
1.104, ['quippe etenim'], [1.104, 2.1133, 2.547, 3.440, 3.801, 4.860, 4.901, 5.1169, 5.126, 6.1235, 6.209, 6.271, 6.826, 6.984], 14
1.104, ['multa tibi'], [1.104, 5.113], 2
1.104, ['quam multa'], [1.104, 6.1080], 2
1.104, ['tibi iam'], [1.104, 2.1038], 2
1.107, ['nam si'], [1.107, 1.360, 1.592, 3.675, 3.889, 4.1061], 6
1.107, ['finem esse'], [1.107, 1.844], 2
1.108, ['aliqua ratione'], [1.108, 3.823, 4.593, 5.409], 4
1.110, ['nulla est'], [1.110, 2.1050], 2
1.111, ['in morte'], [1.111, 3.1023, 3.867, 3.876, 3.881, 3.889, 3.917], 7
1.112, ['quae sit'], [1.112, 3.1022, 5.1432, 5.509, 5.532], 5
1.112, ['sit natura'], [1.112, 2.1058], 2
1.114, ['et simul'], [1.114, 1.924, 4.782, 5.1213, 5.1242, 6.1166, 6.185, 6.313, 6.466, 6.583, 6.886], 11
1.117, ['Ennius ut', 'Ennius aeternis'], [1.117, 1.121], 2
1.117, ['qui primus'], [1.117, 3.2], 2
1.120, ['tamen esse'], [1.120, 1.347, 1.703, 1.843, 2.279, 3.224, 3.543, 4.635, 4.976], 9
1.120, ['Acherusia templa', 'Acherusia fit', 'Acherusia templa,'], [1.120, 3.1024, 3.25, 3.86], 4
1.122, ['animae neque'], [1.122, 3.632], 2
1.122, ['quo neque'], [1.122, 5.36], 2
1.125, ['lacrimas effundere'], [1.125, 1.91], 2
1.126, ['et rerum'], [1.126, 1.139, 1.55], 3

1.126, ['rerum naturam'], [1.126, 1.21, 5.54], 3
1.127, ['qua propter'], [1.127, 1.334, 1.557, 2.1040, 2.1084, 2.155, 2.238, 2.297, 2.442, 2.998, 3.678, 4.154, 4.191, 4.237, 4.610, 5.243], 16
1.127, ['de rebus'], [1.127, 1.424, 3.826, 4.145, 5.279, 5.393], 6
1.128, ['nobis est'], [1.128, 2.433, 5.563], 3
1.128, ['solis lunaeque'], [1.128, 5.1206, 5.471], 3
1.129, ['et qua vi quaeque'], [1.129, 1.568], 2
1.130, ['cum primis'], [1.130, 1.716, 2.536, 2.849, 3.917, 5.621, 6.1222, 6.225, 6.939], 9
1.130, ['in terris,'], [1.130, 1.868, 6.449, 6.713], 4
1.130, ['ratione sagaci'], [1.130, 1.368], 2
1.131, ['unde anima atque animi constet natura'], [1.131, 4.121], 2
1.132, ['nobis vigilantibus obvia mentes'], [1.132, 4.33], 2
1.132, ['et quae res'], [1.132, 4.879], 2
1.135, ['morte obita'], [1.135, 4.734], 2
1.135, ['tellus amplectitur'], [1.135, 4.734], 2
1.136, ['Nec tamen', 'Nec mulier', 'Nec me'], [1.136, 1.329, 2.700, 3.231, 4.1192, 4.379, 4.706], 7
1.137, ['versibus esse,'], [1.137, 1.24], 2
1.138, ['cum sit'], [1.138, 2.338, 2.525, 3.852, 6.976], 5
1.138, ['praesertim cum'], [1.138, 3.363, 4.67, 6.859], 4
1.140, ['tamen et'], [1.140, 1.734, 6.1211], 3
1.143, ['et quo'], [1.143, 1.155, 2.1134, 2.471, 2.549, 2.89], 6
1.143, ['quibus et'], [1.143, 2.1014], 2
1.146, ['hunc igitur terrorem animi tenebrasque necessest'], [1.146, 2.59, 3.91, 6.39], 4
1.147, ['non radii solis neque lucida tela diei'], [1.147, 2.60, 3.92], 3
1.148, ['discutiant, sed naturae species ratioque.'], [1.148, 2.61, 3.93, 6.41], 4
1.149, ['hinc nobis'], [1.149, 4.154], 2
1.150, ['nullam rem'], [1.150, 2.185, 3.359], 3
1.152, ['in terris'], [1.152, 1.210, 1.63, 2.477, 5.586, 5.903, 5.916, 6.50], 8
1.152, ['quod multa'], [1.152, 5.916], 2
1.153, ['nulla ratione'], [1.153, 1.335, 1.344, 1.608, 3.1011], 5
1.155, ['quo quaeque'], [1.155, 1.206, 1.546, 5.56], 4
1.156, ['nil posse creari'], [1.156, 1.543], 2
1.158, ['res quaeque'], [1.158, 1.218, 1.383, 1.541, 1.634, 1.829, 1.995, 2.826, 4.253, 5.923], 10
1.158, ['et unde'], [1.158, 2.1109, 3.177, 3.877, 4.722, 4.929, 5.1048], 7
1.158, ['unde queat'], [1.158, 2.1138, 6.664], 3
1.159, ['ex omnibus'], [1.159, 1.172, 1.661, 2.668, 2.693, 2.711, 2.892, 6.476, 6.506, 6.825], 10
1.159, ['omnibus rebus'], [1.159, 2.175, 4.1035], 3
1.159, ['si de nihilo fierent,'], [1.159, 1.180], 2
1.161, ['e terra'], [1.161, 1.804, 1.867, 2.2, 5.796, 6.553], 6
1.162, ['genus et'], [1.162, 2.699], 2
1.163, ['genus omne ferarum,'], [1.163, 5.1338], 2
1.163, ['atque aliae'], [1.163, 4.90], 2
1.167, ['quippe ubi'], [1.167, 1.617, 1.990, 3.430, 4.434, 4.664, 4.925, 5.1158, 6.854], 9
1.167, ['ubi non'], [1.167, 3.839, 4.553, 6.327], 4
1.167, ['corpora cuique,'], [1.167, 2.72], 2

1.167, ['genitalia corpora'], [1.167, 1.58], 2
1.169, ['at nunc'], [1.169, 1.340], 2
1.170, ['in luminis'], [1.170, 1.179, 1.22], 3
1.171, ['et corpora'], [1.171, 1.445, 2.1083, 2.878], 4
1.171, ['cuiusque et'], [1.171, 5.1111], 2
1.171, ['materies ubi'], [1.171, 2.769], 2
1.172, ['omnibus omnia'], [1.172, 2.340, 5.233], 3
1.173, ['in rebus'], [1.173, 1.488, 1.497, 1.511, 1.748, 1.778, 1.915, 2.290, 3.53, 3.56, 4.474, 4.54, 4.644, 4.811, 4.815, 5.1240, 5.1335, 5.365, 6.29, 6.647, 6.917], 21
1.173, ['certis in'], [1.173, 5.696], 2
1.176, ['semina rerum'], [1.176, 1.59, 2.1059, 2.1072], 4
1.176, ['si non, certa suo quia'], [1.176, 3.747], 2
1.176, ['quia tempore'], [1.176, 4.794], 2
1.177, ['quod cumque creatur,'], [1.177, 4.1230], 2
1.179, ['effert in'], [1.179, 2.654], 2
1.180, ['quod si'], [1.180, 1.213, 1.234, 1.410, 1.904, 2.47, 2.772, 2.985, 3.715, 3.767, 6.387], 11
1.181, ['spatio atque'], [1.181, 1.234], 2
1.182, ['quippe ubi nulla forent'], [1.182, 1.242], 2
1.184, ['foret usus'], [1.184, 1.219], 2
1.188, ['quorum nil fieri manifestum est, omnia quando'], [1.188, 2.707], 2
1.189, ['par est'], [1.189, 2.125], 2
1.189, ['ut par'], [1.189, 1.458], 2
1.190, ['ut noscere possis'], [1.190, 3.588], 2
1.192, ['Huc accedit uti non omnia,', 'Huc accedit uti videamus, corpus', 'Huc accedit uti mellis lactisque', 'Huc accedit uti, solidissima materiai', 'Huc accedit uti sine certis'], [1.192, 1.565, 2.398, 3.459, 6.959], 5
1.194, ['nec porro'], [1.194, 1.325, 1.526, 1.529, 2.295, 2.571, 4.497, 5.370], 8
1.196, ['corpora rebus'], [1.196, 1.58, 4.67], 3
1.198, ['quam sine'], [1.198, 2.839], 2
1.198, ['ullam rem'], [1.198, 2.922], 2
1.199, ['Denique quae nobis', 'Denique si semper', 'Denique conubia ad', 'Denique in aethere', 'Denique nil sciri', 'Denique non lapides', 'Denique cur animi', 'Deinde, quod omnino', 'Denique res omnis', 'Denique iam saltu', 'Denique cum suavi', 'Denique cum corpus', 'Denique saepe geli', 'Denique si vocem', 'Denique quod longo', 'Denique cur homines', 'Denique saepe hominem', 'Denique uti possint', 'Denique ubi in', 'Denique iam quoniam'], [1.199, 1.238, 1.584, 2.251, 2.444, 2.973, 3.526, 3.580, 3.615, 3.777, 3.785, 3.932, 4.420, 4.453, 4.469, 5.306, 5.559, 6.156, 6.335, 6.340], 20
1.202, ['vincere saecla,'], [1.202, 3.949], 2
1.203, ['rebus reddita'], [1.203, 2.512, 5.620], 3
1.203, ['si non,'], [1.203, 1.515, 4.1199], 3
1.204, ['quid possit'], [1.204, 5.527, 6.139], 3
1.204, ['constat quid'], [1.204, 4.1078], 2
1.205, ['igitur fieri'], [1.205, 6.905], 2
1.207, ['aëris in'], [1.207, 2.602, 5.276], 3
1.208, ['Postremo quoniam'], [1.208, 2.834, 6.631], 3
1.208, ['praestare videmus'], [1.208, 1.358], 2
1.209, ['et manibus'], [1.209, 3.52, 5.915, 6.1210, 6.795], 5
1.210, ['primordia rerum'], [1.210, 1.592, 1.712, 1.753, 2.1007, 2.121, 2.479, 2.567, 2.696, 2.84, 2.854, 2.883], 12

1.211, ['quae nos'], [1.211, 1.58, 1.754, 4.36], 4
1.211, ['fecundas vertentes vomere glebas'], [1.211, 5.210], 2
1.212, ['terraique solum subigentes cimus ad'], [1.212, 5.211], 2
1.212, ['ad ortus;'], [1.212, 5.698], 2
1.215, ['Huc accedit ut in summa res nulla', 'Huc accedit uti quicque in sua corpora'], [1.215, 2.1077], 2
1.216, ['ad nihilum'], [1.216, 1.541, 1.668, 1.756], 4
1.216, ['dissoluat natura'], [1.216, 6.598], 2
1.216, ['natura neque'], [1.216, 3.23], 2
1.217, ['partibus esset,'], [1.217, 1.650], 2
1.218, ['ex oculis'], [1.218, 1.856, 3.289, 4.720], 4
1.219, ['nulla vi'], [1.219, 4.128], 2
1.222, ['quae res'], [1.222, 1.461, 4.476, 4.477], 4
1.225, ['Praeterea quae cumque'], [1.225, 1.867, 5.351], 3
1.227, ['in lumina'], [1.227, 2.654], 2
1.228, ['daedala tellus'], [1.228, 1.7], 2
1.229, ['alit atque'], [1.229, 5.220], 2
1.230, ['unde mare'], [1.230, 2.1109, 2.590], 3
1.232, ['omnia enim'], [1.232, 1.641, 5.455, 5.820], 4
1.232, ['mortali corpore quae sunt,'], [1.232, 5.377], 2
1.233, ['ante acta'], [1.233, 3.936, 3.973], 3
1.233, ['infinita aetas'], [1.233, 1.558], 2
1.234, ['in eo'], [1.234, 1.442, 2.187, 4.1086, 5.57, 6.1016, 6.375], 7
1.234, ['si in'], [1.234, 2.35, 2.36, 3.889, 5.192], 5
1.234, ['ante acta aetate fuere'], [1.234, 2.298], 2
1.235, ['e quibus haec rerum'], [1.235, 5.237], 2
1.236, ['natura praedita'], [1.236, 1.581, 1.798, 1.917, 6.219, 6.739, 6.982], 7
1.238, ['eadem vis'], [1.238, 6.824], 2
1.239, ['nisi materies aeterna'], [1.239, 1.540], 2
1.240, ['inter se'], [1.240, 1.244, 1.375, 1.768, 1.787, 1.819, 1.838, 1.899, 1.911, 1.913, 2.155, 2.351, 2.372, 2.439, 2.484, 2.524, 2.67, 2.693, 2.721, 2.76, 2.783, 2.942, 3.137, 3.283, 3.332, 3.424, 3.559, 3.781, 3.784, 4.726, 4.947, 4.961, 5.1020, 5.1047, 5.1100, 5.1245, 5.649, 5.72, 5.854, 5.894, 5.919, 5.959, 6.1067, 6.1110, 6.370], 45
1.240, ['aut magis'], [1.240, 2.394, 3.804], 3
1.248, ['haud igitur'], [1.248, 1.262, 1.338, 2.240, 3.633, 4.533, 4.842, 5.144], 8
1.248, ['ad nihilum res'], [1.248, 1.857], 2
1.249, ['in corpora'], [1.249, 2.876, 2.879, 3.438, 3.724, 3.761, 4.1065], 7
1.249, ['corpora materiai.'], [1.249, 1.997], 2
1.250, ['ubi eos'], [1.250, 5.1068], 2
1.251, ['in gremium'], [1.251, 1.33], 2
1.254, ['genus atque'], [1.254, 6.1216], 2
1.257, ['per pabula laeta'], [1.257, 2.364], 2
1.260, ['per herbas'], [1.260, 5.461], 2
1.262, ['penitus pereunt'], [1.262, 3.343], 2
1.263, ['natura nec'], [1.263, 1.602, 3.531, 3.561], 4
1.263, ['ex alio'], [1.263, 5.303, 5.835], 3
1.263, ['alit ex'], [1.263, 2.1156], 2
1.265, ['Nunc animam', 'Nunc age,', 'Nunc locus', 'Nunc ea', 'Nunc animum', 'Nunc omnis', 'Nil igitur', 'Nunc qui', 'Nunc quae', 'Nunc aliis', 'Nunc tibi', 'Nam quae', 'Nunc age', 'Nunc alii', 'Nunc et', 'Nunc igitur'], [1.265, 1.449, 1.675, 1.830, 1.921, 2.1023,

2.142, 2.184, 2.333, 2.62, 2.730, 3.117, 3.136, 3.417, 3.831, 4.110, 4.143, 4.269, 4.522, 4.633, 4.752, 4.877, 5.1161, 5.1281, 6.738, 6.936], 26
1.265, ['docui non posse'], [1.265, 2.499], 2
1.265, ['posse creari'], [1.265, 2.902], 2
1.265, ['quoniam docui'], [1.265, 4.26], 2
1.266, ['de nihilo neque item genitas ad nil revocari,', 'de nihilo neque quod genitumst ad nil revocari,'], [1.266, 1.544], 2
1.268, ['rerum primordia'], [1.268, 1.55, 2.309, 2.80], 4
1.269, ['quae corpora'], [1.269, 1.320, 1.688, 1.873, 2.739, 4.668], 6
1.270, ['esse in rebus'], [1.270, 1.399, 1.894], 3
1.270, ['nec posse'], [1.270, 5.61], 2
1.271, ['venti vis'], [1.271, 6.281], 2
1.277, ['ni mirum'], [1.277, 1.365, 1.601, 1.668, 2.889, 2.95, 3.979, 4.662, 6.311, 6.861], 10
1.277, ['corpora caeca,'], [1.277, 1.295], 2
1.277, ['sunt igitur'], [1.277, 4.104], 2
1.278, ['nubila caeli'], [1.278, 1.6], 2
1.278, ['quae denique'], [1.278, 3.240], 2
1.280, ['nec ratione'], [1.280, 1.448, 1.480, 4.757, 5.1052, 5.1054], 6
1.281, ['et cum'], [1.281, 2.1140, 2.416, 4.259, 4.333, 4.939, 5.1071, 5.1077], 8
1.283, ['decursus aquai'], [1.283, 5.946], 2
1.283, ['magnus decursus'], [1.283, 5.263], 2
1.290, ['sic igitur debent'], [1.290, 2.203], 2
1.291, ['vel uti'], [1.291, 3.551, 6.504], 3
1.291, ['quae vel'], [1.291, 6.478], 2
1.292, ['quam libet'], [1.292, 3.988], 2
1.292, ['res ante'], [1.292, 1.858], 2
1.297, ['corpore qui'], [1.297, 3.444, 3.587], 3
1.298, ['Tum porro venti quoque', 'Tum porro varios rerum', 'Tum porro si nil'], [1.298, 1.520, 6.623], 3
1.299, ['nec tamen'], [1.299, 1.745, 1.843, 2.201, 2.461, 3.1008, 5.101, 5.1024, 6.1219], 9
1.299, ['tamen ad'], [1.299, 3.851, 6.613], 3
1.300, ['nec frigora'], [1.300, 5.818], 2
1.302, ['constare necessest'], [1.302, 1.795, 1.868, 3.204], 4
1.302, ['quae tamen omnia'], [1.302, 3.969], 2
1.304, ['nulla potest'], [1.304, 1.324, 1.443, 1.446, 1.485], 5
1.304, ['tangere enim'], [1.304, 5.152], 2
1.305, ['litore vestis'], [1.305, 6.471], 2
1.306, ['in sole'], [1.306, 2.801, 4.364, 5.292], 4
1.307, ['quo pacto'], [1.307, 1.308, 1.84, 1.912, 2.549, 2.801, 4.522, 4.573, 5.1281, 5.615, 6.1054], 11
1.307, ['at neque'], [1.307, 1.857, 3.517, 3.631, 3.731], 5
1.307, ['neque quo'], [1.307, 2.304], 2
1.307, ['umor aquai'], [1.307, 3.427], 2
1.308, ['nec rursum'], [1.308, 1.660], 2
1.309, ['in parvas'], [1.309, 2.829], 2
1.311, ['quin etiam'], [1.311, 1.731, 1.823, 2.1013, 3.463, 3.540, 3.657, 4.710, 5.294], 9
1.319, ['haec igitur'], [1.319, 2.682, 3.506, 4.851, 5.49, 6.1125], 6

1.319, ['cum sint'], [1.319, 4.67, 5.479], 3
1.320, ['sed quae'], [1.320, 1.485, 5.532], 3
1.321, ['speciem natura'], [1.321, 5.186], 2
1.322, ['quae cumque'], [1.322, 1.325, 1.449, 1.522, 1.542, 1.669, 2.230, 2.905, 3.27, 3.979, 4.307, 4.645, 4.753, 4.832, 4.99, 5.414, 6.23, 6.338, 6.500], 19
1.322, ['cumque dies'], [1.322, 4.973], 2
1.324, ['oculorum acies'], [1.324, 4.691], 2
1.327, ['cernere possis.'], [1.327, 4.915], 2
1.330, ['est in rebus inane.'], [1.330, 1.569], 2
1.331, ['in multis'], [1.331, 6.415, 6.711], 3
1.332, ['et quaerere'], [1.332, 3.1059], 2
1.333, ['de summa'], [1.333, 1.54, 3.514], 3
1.334, ['locus est'], [1.334, 2.1068, 6.1117, 6.747], 4
1.334, ['inane vacansque.'], [1.334, 1.444], 2
1.335, ['ratione moveri'], [1.335, 1.341, 4.754], 3
1.335, ['quod si non'], [1.335, 2.481], 2
1.337, ['omni tempore'], [1.337, 2.1099, 2.652], 3
1.341, ['multa modis multis varia ratione'], [1.341, 5.792], 2
1.342, ['si non'], [1.342, 2.1017, 2.24, 3.406, 3.618, 4.1070, 4.500, 4.812, 5.1046, 5.210, 5.38, 6.268, 6.321], 13
1.342, ['ante oculos,'], [1.342, 4.979], 2
1.342, ['cernimus ante'], [1.342, 6.170], 2
1.343, ['non tam'], [1.343, 2.395, 3.194, 3.613, 4.1245, 4.701, 5.1347], 7
1.343, ['sollicito motu'], [1.343, 6.1038], 2
1.346, ['res esse'], [1.346, 1.442, 1.773], 3
1.346, ['Praeterea quamvis'], [1.346, 2.944], 2
1.347, ['raro cum corpore'], [1.347, 6.631], 2
1.349, ['liquidus umor'], [1.349, 3.427], 2
1.350, ['in corpus'], [1.350, 3.671, 4.1056, 4.1095, 4.1111, 6.1130], 6
1.351, ['arbusta et'], [1.351, 5.671], 2
1.354, ['voces et'], [1.354, 5.1406], 2
1.356, ['quod nisi'], [1.356, 2.221, 6.568, 6.591], 4
1.356, ['corpora quaeque'], [1.356, 1.381, 4.1065], 3
1.357, ['fieri ratione'], [1.357, 2.710, 4.751], 3
1.358, ['Denique iam calidos ignis', 'Denique cur alias aliis', 'Denique cur acris violentia'], [1.358, 2.431, 3.742], 3
1.359, ['res rebus'], [1.359, 1.816], 2
1.361, ['par est,'], [1.361, 1.458, 2.849, 6.1082], 4
1.361, ['corporis in'], [1.361, 5.542, 6.1164], 3
1.365, ['esse sibi'], [1.365, 3.590], 2
1.366, ['at contra'], [1.366, 1.570, 2.235, 2.392, 2.400, 2.404, 2.713, 3.191, 3.198, 3.25, 4.625, 4.661, 4.843, 6.976], 14
1.366, ['corporis esse'], [1.366, 2.937], 2
1.367, ['et multo'], [1.367, 2.162, 4.1236, 4.70, 4.956], 5
1.368, ['id quod'], [1.368, 1.451, 1.531, 1.876, 2.183, 2.528, 2.925, 3.644, 3.826, 4.1230, 4.369, 4.885], 12
1.368, ['est igitur'], [1.368, 1.419, 1.958, 3.128, 4.511, 6.843], 6
1.368, ['igitur ni mirum'], [1.368, 1.524], 2
1.369, ['quod inane vocamus.'], [1.369, 1.439], 2
1.371, ['quod quidam'], [1.371, 5.320], 2

1.374, ['quo possint'], [1.374, 5.371], 2
1.375, ['quoque res'], [1.375, 3.208, 5.327, 6.1023, 6.317, 6.703], 6
1.375, ['sic alias'], [1.375, 1.802, 5.1077], 3
1.375, ['se posse'], [1.375, 3.533], 2
1.376, ['et mutare'], [1.376, 3.749], 2
1.377, ['scilicet id'], [1.377, 2.710], 2
1.378, ['nam quo'], [1.378, 2.197], 2
1.382, ['rebus inane,'], [1.382, 1.655, 5.365], 3
1.387, ['porro quamvis'], [1.387, 2.668], 2
1.388, ['uno tempore'], [1.388, 3.454], 2
1.389, ['nam primum'], [1.389, 5.284], 2
1.391, ['cum corpora'], [1.391, 3.121, 5.901, 6.350], 4
1.391, ['quod si forte'], [1.391, 2.924, 3.723], 3
1.392, ['id fieri'], [1.392, 2.771, 5.729], 3
1.393, ['quod non'], [1.393, 2.1029, 2.528, 2.585, 3.357, 5.444, 5.836], 7
1.393, ['fuit ante'], [1.393, 3.678, 4.836], 3
1.393, ['tum fit'], [1.393, 6.805], 2
1.394, ['et repletur item'], [1.394, 4.378], 2
1.394, ['vacuum quod'], [1.394, 1.439], 2
1.396, ['nec, si'], [1.396, 3.848], 2
1.396, ['sine inani'], [1.396, 1.532], 2
1.397, ['trahere et partis conducere in'], [1.397, 3.534], 2
1.397, ['in unum.'], [1.397, 6.967], 2
1.397, ['ipse in'], [1.397, 6.402], 2
1.398, ['Qua propter, bene ubi', 'Qua propter, quamvis causando'], [1.398, 6.998], 2
1.399, ['in rebus inane'], [1.399, 1.658, 1.843], 3
1.400, ['multaque praeterea'], [1.400, 2.109, 3.358, 5.943, 6.1182, 6.588, 6.797, 6.903], 8
1.402, ['satis haec'], [1.402, 6.663], 2
1.403, ['quae possis'], [1.403, 4.1143], 2
1.406, ['cum semel'], [1.406, 3.439, 5.394], 3
1.407, ['sic alid ex alio'], [1.407, 3.971, 5.1305], 3
1.408, ['talibus in rebus'], [1.408, 1.43], 2
1.409, ['omnis et'], [1.409, 1.669, 1.864, 6.356], 4
1.411, ['tibi de'], [1.411, 1.416, 1.54], 3
1.413, ['de pectore'], [1.413, 2.354], 2
1.414, ['per membra'], [1.414, 2.262, 2.276, 2.282, 3.153, 4.869, 6.1167, 6.657], 8
1.415, ['et in'], [1.415, 1.710, 2.1102, 2.1132, 2.332, 3.133, 3.173, 3.477, 3.491, 3.575, 3.671, 3.727, 4.240, 4.421, 4.423, 4.456, 4.651, 5.193, 5.278, 5.279, 6.872], 21
1.415, ['in nobis'], [1.415, 3.114, 3.391, 5.478], 4
1.415, ['vitai claustra'], [1.415, 3.396, 6.1153], 3
1.416, ['quam tibi'], [1.416, 2.1038], 2
1.418, ['Sed nunc', 'Sed neque'], [1.418, 5.878], 2
1.419, ['omnis ut'], [1.419, 2.268, 3.676], 3
1.419, ['ut est'], [1.419, 5.583, 6.1167], 3
1.419, ['igitur per se'], [1.419, 3.633], 2
1.419, ['per se natura'], [1.419, 3.561], 2
1.420, ['sunt et'], [1.420, 1.421, 2.1140, 5.869], 4
1.420, ['corpora sunt'], [1.420, 2.1107, 2.390], 3
1.421, ['in quo'], [1.421, 3.105, 3.1075, 3.95, 6.1061], 5

1.421, ['et qua'], [1.421, 2.895, 6.85], 3
1.421, ['haec in'], [1.421, 2.673], 2
1.421, ['sita sunt'], [1.421, 4.322], 2
1.422, ['corpus enim'], [1.422, 3.573, 3.734, 5.717], 4
1.422, ['enim per se'], [1.422, 2.133], 2
1.424, ['haut erit'], [1.424, 3.716], 2
1.426, ['tum porro'], [1.426, 2.594, 4.829, 5.222], 4
1.426, ['spatium, quod inane vocamus,'], [1.426, 1.507], 2
1.428, ['esse neque omnino'], [1.428, 2.427], 2
1.429, ['id quod iam supera tibi'], [1.429, 4.672], 2
1.429, ['tibi paulo ostendimus ante.'], [1.429, 1.531], 2
1.430, ['praeterea nihil'], [1.430, 2.784], 2
1.432, ['numero natura'], [1.432, 1.446], 2
1.433, ['nam quod cumque'], [1.433, 5.322], 2
1.433, ['id ipsum'], [1.433, 4.473], 2
1.436, ['numerum summamque'], [1.436, 6.485], 2
1.437, ['de parte'], [1.437, 1.843, 4.932, 6.522, 6.99], 5
1.437, ['parte quod'], [1.437, 6.1029], 2
1.438, ['per se'], [1.438, 1.445, 1.462, 1.466, 1.506, 1.603, 1.607, 1.709, 2.1050, 2.1092, 2.910, 3.145, 3.685, 4.272], 14
1.439, ['scilicet hoc'], [1.439, 6.185], 2
1.440, ['Praeterea per se quod cumque erit, aut', 'Praeterea splendor qui cumque est acer adurit'], [1.440, 4.304], 2
1.442, ['erit ut'], [1.442, 1.620, 3.716], 3
1.442, ['ut possint in'], [1.442, 4.793], 2
1.443, ['sine corpore'], [1.443, 3.508, 3.554, 3.560, 3.732], 5
1.443, ['et fungi'], [1.443, 3.802], 2
1.443, ['potest res'], [1.443, 2.123], 2
1.444, ['nec praebere'], [1.444, 3.992], 2
1.446, ['in numero'], [1.446, 1.691], 2
1.446, ['rerum in'], [1.446, 2.897], 2
1.447, ['nec quae'], [1.447, 2.791, 3.1022], 3
1.447, ['quae sub'], [1.447, 1.642], 2
1.447, ['ullo tempore'], [1.447, 2.558], 2
1.452, ['potis est'], [1.452, 2.1096, 2.912, 5.1, 5.560, 5.719], 6
1.459, ['non est,'], [1.459, 4.920, 5.126], 3
1.459, ['per se non'], [1.459, 3.554], 2
1.459, ['est, sed'], [1.459, 2.467], 2
1.460, ['quid sit'], [1.460, 2.1046, 3.1051, 3.354, 3.910, 4.475, 5.1053, 5.125, 5.1446], 9
1.460, ['sit in'], [1.460, 2.122], 2
1.461, ['quid porro'], [1.461, 1.587], 2
1.461, ['tum quae'], [1.461, 5.69], 2
1.462, ['se quemquam'], [1.462, 3.876], 2
1.466, ['ne forte haec'], [1.466, 2.731, 5.78], 3
1.466, ['nos esse'], [1.466, 3.927], 2
1.469, ['namque aliud'], [1.469, 5.832], 2
1.470, ['quod cumque'], [1.470, 1.683, 2.461, 2.586, 2.983, 4.1083, 5.257, 5.275, 5.903], 9

1.472, ['locus ac spatium, res in quo quaeque geruntur,', 'locus ac spatium, res in quo quaeque gerantur,'], [1.472, 1.955], 2
1.474, ['sub pectore'], [1.474, 2.639], 2
1.478, ['funditus omnis'], [1.478, 1.572, 1.620, 1.854], 4
1.478, ['ut possis'], [1.478, 4.560, 5.572], 3
1.478, ['res gestas'], [1.478, 5.1444], 2
1.479, ['non ita'], [1.479, 2.1126, 2.481, 3.5, 4.1147, 4.708, 5.1016, 5.1168, 6.887], 9
1.479, ['corpus per se'], [1.479, 3.337], 2
1.479, ['ita uti'], [1.479, 1.539], 2
1.480, ['qua constet'], [1.480, 1.950], 2
1.481, ['sed magis'], [1.481, 1.612, 2.1041, 2.428, 2.869, 2.97, 3.126, 3.614, 3.983, 4.262, 5.982], 11
1.481, ['ut merito'], [1.481, 2.698, 3.716, 4.160, 5.795, 6.210], 6
1.482, ['corporis atque loci, res in quo quaeque'], [1.482, 1.505], 2
1.483, ['primordia rerum,'], [1.483, 1.570, 2.133, 2.379, 2.523, 2.653, 2.796], 7
1.483, ['sunt porro'], [1.483, 2.670], 2
1.484, ['quae constant'], [1.484, 2.820, 4.150], 3
1.485, ['quae sunt'], [1.485, 1.644, 2.157, 2.524, 2.670, 2.734, 3.126, 4.1074, 4.204, 4.362, 4.803, 4.807, 4.852, 5.37, 6.561], 15
1.487, ['esse videtur'], [1.487, 4.406, 5.258], 3
1.489, ['per saepta domorum'], [1.489, 6.228, 6.859], 3
1.489, ['transit enim'], [1.489, 6.228], 2
1.490, ['in igni'], [1.490, 3.623, 5.142], 3
1.490, ['clamor ut ac voces,'], [1.490, 6.229], 2
1.497, ['esse videtur.'], [1.497, 1.692, 4.1277, 5.565, 5.578, 6.1061, 6.980], 7
1.497, ['nihil esse'], [1.497, 1.963, 3.867, 3.928], 4
1.498, ['sed quia'], [1.498, 1.657, 3.958, 5.826, 6.448, 6.73], 6
1.500, ['esse ea quae'], [1.500, 1.625, 2.403], 3
1.501, ['semina quae'], [1.501, 6.217, 6.896], 3
1.502, ['unde omnis'], [1.502, 1.56], 2
1.503, ['Principio quoniam'], [1.503, 3.425, 4.54, 5.235], 4
1.508, ['qua porro'], [1.508, 6.404], 2
1.510, ['solida ac sine inani corpora'], [1.510, 1.538], 2
1.510, ['sunt igitur solida'], [1.510, 1.574], 2
1.511, ['Praeterea quoniam'], [1.511, 1.859, 2.795, 4.230], 4
1.513, ['vera ratione'], [1.513, 2.645, 4.446], 3
1.513, ['nec res ulla'], [1.513, 1.988], 2
1.513, ['ulla potest'], [1.513, 2.303], 2
1.517, ['quod inane'], [1.517, 1.520, 1.954], 3
1.519, ['cum cetera'], [1.519, 3.150], 2
1.521, ['nisi contra'], [1.521, 5.276], 2
1.522, ['quae loca'], [1.522, 2.344, 4.870, 5.42], 4
1.523, ['omne quod est spatium,'], [1.523, 1.969], 2
1.525, ['quoniam nec'], [1.525, 2.1148], 2
1.530, ['nec ratione queunt alia'], [1.530, 1.549], 2
1.531, ['quod iam'], [1.531, 2.499], 2
1.532, ['posse videtur'], [1.532, 1.960, 3.333, 6.236], 4
1.533, ['quicquam nec'], [1.533, 5.843], 2
1.534, ['nec capere'], [1.534, 3.298], 2
1.534, ['neque item'], [1.534, 2.858], 2

1.536, ['et quo quaeque magis'], [1.536, 4.1005], 2
1.536, ['res intus'], [1.536, 4.661], 2
1.537, ['tam magis'], [1.537, 4.1006, 4.1090, 4.82, 5.453, 5.487, 6.101], 7
1.537, ['magis his rebus'], [1.537, 2.1035], 2
1.538, ['corpora prima'], [1.538, 2.1011, 2.486, 2.843, 2.91], 5
1.538, ['ergo si'], [1.538, 5.1087], 2
1.539, ['uti docui,'], [1.539, 2.1050, 2.339, 3.522, 5.364], 5
1.539, ['haec aeterna'], [1.539, 2.907], 2
1.540, ['Praeterea nisi'], [1.540, 1.615], 2
1.541, ['penitus res'], [1.541, 6.698], 2
1.542, ['de nihiloque renata'], [1.542, 1.674, 1.757], 3
1.543, ['supra docui'], [1.543, 6.1094, 6.271], 3
1.543, ['at quoniam'], [1.543, 1.581], 2
1.548, ['sunt igitur solida primordia'], [1.548, 1.609], 2
1.549, ['per aevom'], [1.549, 5.427], 2
1.550, ['ex infinito iam tempore'], [1.550, 1.991, 5.378], 3
1.551, ['denique si'], [1.551, 6.799], 2
1.552, ['corpora materiai'], [1.552, 2.899], 2
1.554, ['certo tempore'], [1.554, 5.748, 5.823], 3
1.554, ['ut nihil'], [1.554, 3.322, 5.265], 3
1.554, ['nihil ex illis'], [1.554, 1.630], 2
1.556, ['posse videmus'], [1.556, 2.350, 3.165], 3
1.556, ['citius dissolvi'], [1.556, 3.438], 2
1.561, ['reddita finis'], [1.561, 1.577, 1.584], 3
1.561, ['at nunc ni mirum'], [1.561, 1.992], 2
1.562, ['rem quamque videmus'], [1.562, 2.68], 2
1.566, ['tamen omnia'], [1.566, 2.866, 3.948, 4.1188, 6.678], 5
1.568, ['quo pacto fiant'], [1.568, 6.533], 2
1.569, ['semel est'], [1.569, 3.931], 2
1.570, ['contra si'], [1.570, 4.300], 2
1.570, ['sint primordia'], [1.570, 2.979], 2
1.571, ['unde queant'], [1.571, 1.608, 1.829], 3
1.571, ['validi silices'], [1.571, 2.449], 2
1.572, ['non poterit ratio'], [1.572, 4.500], 2
1.574, ['pollentia simplicitate,'], [1.574, 1.612], 2
1.575, ['magis omnia'], [1.575, 1.701, 2.89, 3.45, 5.633], 5
1.577, ['porro si'], [1.577, 6.150], 2
1.578, ['tamen ex'], [1.578, 3.107, 4.399], 3
1.578, ['corporibus, tamen'], [1.578, 6.1216], 2
1.578, ['tempore quaeque'], [1.578, 4.797], 2
1.579, ['nunc etiam'], [1.579, 5.20, 5.333, 5.40, 5.797], 5
1.580, ['quae non'], [1.580, 2.579, 2.727], 3
1.586, ['et quid'], [1.586, 4.535], 2
1.586, ['per foedera'], [1.586, 2.302], 2
1.586, ['queant per'], [1.586, 5.648], 2
1.586, ['quid quaeque'], [1.586, 5.545], 2
1.587, ['quando quidem'], [1.587, 2.1087, 2.1141, 2.980, 3.457], 5
1.588, ['quin omnia'], [1.588, 3.253, 3.26, 3.330], 4
1.589, ['ut in'], [1.589, 2.475, 2.780, 3.117, 3.685, 4.1202, 5.534, 6.633], 8
1.589, ['usque adeo,'], [1.589, 1.966, 3.79, 4.760, 6.784], 5

1.589, ['variae volucres'], [1.589, 2.145], 2
1.591, ['quoque corpus'], [1.591, 4.892], 2
1.592, ['mirum; nam'], [1.592, 2.338], 2
1.592, ['si primordia'], [1.592, 1.848], 2
1.594, ['quid possit oriri,'], [1.594, 1.75], 2
1.594, ['quoque iam'], [1.594, 5.679], 2
1.595, ['quid nequeat, finita potestas denique cuique'], [1.595, 1.76, 5.89, 6.65], 4
1.596, ['qua nam sit ratione atque alte terminus'], [1.596, 6.66], 2
1.599, ['Tum porro quoniam est extremum quodque', 'Tum porro, quid id est, animum'], [1.599, 2.886], 2
1.602, ['nec fuit'], [1.602, 4.836, 5.180], 3
1.602, ['et minima'], [1.602, 1.626], 2
1.602, ['fuit umquam'], [1.602, 2.294], 2
1.603, ['neque post'], [1.603, 3.338, 3.916], 3
1.605, ['ex ordine'], [1.605, 4.370, 4.574, 4.973, 5.418, 5.679], 6
1.605, ['aliae atque aliae'], [1.605, 1.813], 2
1.605, ['inde aliae'], [1.605, 5.744], 2
1.607, ['quoniam per'], [1.607, 2.83, 4.699], 3
1.609, ['solida primordia simplicitate,'], [1.609, 2.157], 2
1.611, ['non ex'], [1.611, 2.892, 2.986, 2.988], 4
1.613, ['quicquam neque'], [1.613, 2.296, 3.243, 3.518], 4
1.613, ['unde neque'], [1.613, 3.467], 2
1.615, ['nisi erit'], [1.615, 2.544, 3.772], 3
1.618, ['nec res'], [1.618, 2.1068, 2.158], 3
1.620, ['nam quamvis'], [1.620, 2.177], 2
1.621, ['quae sunt,'], [1.621, 2.1085, 2.868, 5.294, 6.771], 5
1.621, ['summa sit'], [1.621, 2.339], 2
1.623, ['quod quoniam'], [1.623, 2.95], 2
1.624, ['victus fateare necessest'], [1.624, 5.343], 2
1.625, ['quae nullis'], [1.625, 1.631], 2
1.627, ['illa quoque'], [1.627, 5.1208, 6.1130], 3
1.627, ['quoque esse'], [1.627, 3.863], 2
1.628, ['Denique ut in fabrica, si', 'Denique si minimas in partis'], [1.628, 4.513], 2
1.629, ['natura creatrix,'], [1.629, 5.1362], 2
1.631, ['propterea quia, quae'], [1.631, 2.72], 2
1.632, ['ea quae'], [1.632, 2.134, 2.733, 2.813, 3.667, 3.941, 4.1154, 4.257, 4.396, 5.453, 5.479, 6.320], 12
1.633, ['conexus pondera'], [1.633, 2.1020], 2
1.634, ['motus, per'], [1.634, 2.242], 2
1.635, ['Quapropter qui materiem rerum esse putarunt'], [1.635, 1.705], 2
1.636, ['ignem atque ex igni summam consistere'], [1.636, 1.706], 2
1.637, ['magno opere a vera lapsi ratione videntur.'], [1.637, 2.176], 2
1.640, ['Graios, qui', 'Grai quam', 'Graii quos'], [1.640, 3.100, 6.424], 3
1.640, ['qui vera'], [1.640, 1.700], 2
1.645, ['variae res'], [1.645, 1.816, 1.829], 3
1.646, ['ex uno'], [1.646, 2.584, 5.601, 6.620, 6.914], 5
1.646, ['si sunt'], [1.646, 1.868], 2
1.646, ['sunt igni'], [1.646, 1.687], 2
1.652, ['hoc fieri'], [1.652, 6.1089, 6.249], 3
1.652, ['fieri nihil'], [1.652, 2.287], 2

1.652, ['quod posse'], [1.652, 2.350], 2
1.657, ['quae sint'], [1.657, 2.87, 2.979, 4.509, 5.1032, 5.123, 6.1094, 6.1095, 6.343, 6.738], 10
1.657, ['quia multa'], [1.657, 5.1181, 6.898], 3
1.657, ['contraria quae'], [1.657, 4.510], 2
1.660, ['exempto rebus'], [1.660, 1.742], 2
1.662, ['ab se'], [1.662, 2.856, 3.271, 4.468, 6.1054], 5
1.662, ['quod possit'], [1.662, 4.481, 5.1033], 3
1.664, ['non e'], [1.664, 2.463], 2
1.664, ['ut videas'], [1.664, 2.269], 2
1.665, ['Quod si forte aliquis dicet, dum taxat', 'Quod si forte aliquis credit graviora potesse', 'Quod si forte alia credunt ratione potesse'], [1.665, 2.225, 2.931], 3
1.666, ['in coetu'], [1.666, 1.775], 2
1.667, ['facere id'], [1.667, 1.899, 2.193, 2.64], 4
1.670, ['nam quod cumque suis mutatum finibus exit,'], [1.670, 1.792, 2.753, 3.519], 4
1.671, ['continuo hoc mors est illius quod fuit ante.'], [1.671, 1.793, 2.754, 3.520], 4
1.672, ['necesse est'], [1.672, 2.1064, 2.1074, 2.526, 2.690], 5
1.673, ['ne tibi res redeant ad nilum funditus'], [1.673, 1.797], 2
1.675, ['corpora quaedam'], [1.675, 6.302], 2
1.675, ['igitur quoniam'], [1.675, 3.434], 2
1.677, ['mutatoque ordine mutant'], [1.677, 1.686], 2
1.678, ['res et'], [1.678, 4.1123, 5.438, 6.55], 4
1.679, ['scire licet non esse'], [1.679, 1.894], 2
1.680, ['enim quaedam'], [1.680, 3.232], 2
1.681, ['atque alia'], [1.681, 5.1090, 5.734, 6.304], 4
1.682, ['ardoris naturam'], [1.682, 1.702], 2
1.683, ['ignis enim'], [1.683, 5.1015, 5.396, 5.407, 6.222], 5
1.684, ['verum, ut opinor,'], [1.684, 5.330], 2
1.685, ['concursus motus ordo positura figurae'], [1.685, 2.1021], 2
1.687, ['neque sunt'], [1.687, 3.1014, 5.898, 6.361], 4
1.689, ['sensibus et'], [1.689, 2.408], 2
1.690, ['esse neque'], [1.690, 2.796, 3.118, 5.249], 4
1.690, ['neque ullam'], [1.690, 3.39], 2
1.690, ['res omnis'], [1.690, 1.804], 2
1.692, ['hic idem,'], [1.692, 4.938], 2
1.692, ['quod facit'], [1.692, 6.1015], 2
1.693, ['ab sensibus'], [1.693, 2.312, 3.861, 4.478, 4.484, 4.521], 6
1.693, ['contra sensus'], [1.693, 4.512], 2
1.694, ['unde omnia'], [1.694, 2.568], 2
1.700, ['esse potest,'], [1.700, 5.565, 6.320], 3
1.700, ['sensibus esse'], [1.700, 4.478, 5.565], 3
1.707, ['et qui'], [1.707, 1.714, 2.420, 4.973, 5.641], 5
1.708, ['qui cumque'], [1.708, 3.515, 4.687, 4.973, 6.1104, 6.1238], 6
1.710, ['in rerum'], [1.710, 1.740], 2
1.711, ['a vero'], [1.711, 1.758], 2
1.711, ['magno opere'], [1.711, 3.105], 2
1.714, ['posse omnia'], [1.714, 5.109, 5.1203], 3
1.714, ['quattuor ex rebus'], [1.714, 1.763], 2
1.715, ['atque anima'], [1.715, 3.275], 2
1.715, ['ex igni'], [1.715, 4.928], 2

1.719, ['ab undis'], [1.719, 5.222], 2
1.722, ['hic est'], [1.722, 3.915, 4.317], 3
1.725, ['ad caelumque'], [1.725, 6.562], 2
1.726, ['quae cum'], [1.726, 1.903, 2.859, 3.159, 4.715, 4.745, 4.759, 5.1257, 6.1110, 6.896], 10
1.726, ['modis multis'], [1.726, 1.759, 2.116, 4.654, 6.134], 5
1.727, ['gentibus humanis'], [1.727, 2.595, 5.161], 3
1.729, ['tamen hoc'], [1.729, 4.473, 4.706], 3
1.730, ['magis et'], [1.730, 3.192, 3.954], 3
1.730, ['nec sanctum'], [1.730, 5.309], 2
1.734, ['supra quos diximus'], [1.734, 1.846], 2
1.736, ['ac divinitus'], [1.736, 5.52], 2
1.737, ['tam quam'], [1.737, 3.1057, 3.917, 4.263, 6.1245, 6.433, 6.866, 6.975], 8
1.738, ['sanctius et multo certa ratione magis quam'], [1.738, 5.111], 2
1.739, ['Pythia quae tripodi a Phoebi lauroque profatur,', 'Pythia quae tripode a Phoebi lauroque profatur,'], [1.739, 5.112], 2
1.740, ['tamen in'], [1.740, 3.114, 3.407, 3.553, 3.707, 4.811, 6.1206, 6.301], 8
1.741, ['et graviter'], [1.741, 5.105, 6.1208], 3
1.743, ['et res'], [1.743, 2.173, 2.566, 2.687], 4
1.743, ['constituunt et'], [1.743, 2.104], 2
1.745, ['in eorum'], [1.745, 4.310], 2
1.746, ['non esse'], [1.746, 2.1086, 2.459, 2.528, 5.174, 5.180], 6
1.746, ['deinde quod'], [1.746, 4.196], 2
1.746, ['quod omnino'], [1.746, 6.325], 2
1.748, ['minimum consistere'], [1.748, 1.752], 2
1.750, ['esse videtur,'], [1.750, 3.555, 3.778, 4.209, 5.19], 5
1.750, ['ad sensus'], [1.750, 4.708], 2
1.751, ['conicere ut possis ex hoc,'], [1.751, 2.121], 2
1.751, ['cernere non'], [1.751, 4.803], 2
1.753, ['accedit item,'], [1.753, 6.1022], 2
1.753, ['quoniam primordia'], [1.753, 4.111], 2
1.754, ['constituunt, quae'], [1.754, 2.670], 2
1.755, ['ut qui'], [1.755, 2.17, 3.739], 3
1.755, ['cum corpore,'], [1.755, 5.352], 2
1.755, ['funditus ut'], [1.755, 5.497], 2
1.756, ['iam rerum'], [1.756, 5.195], 2
1.758, ['quorum utrumque'], [1.758, 1.975, 2.565, 5.1101, 6.365], 5
1.759, ['Deinde cibum', 'Deinde inimica', 'Deinde ex'], [1.759, 2.902, 4.954], 3
1.760, ['inter se;'], [1.760, 2.461], 2
1.762, ['diffugere atque imbris ventosque'], [1.762, 1.769], 2
1.764, ['atque in'], [1.764, 3.574, 4.1107, 4.34, 4.964], 5
1.764, ['in eas'], [1.764, 6.402, 6.731], 3
1.765, ['rerum primordia dici'], [1.765, 2.916], 2
1.765, ['magis illa'], [1.765, 5.489], 2
1.770, ['ita forte'], [1.770, 3.46], 2
1.770, ['sin ita'], [1.770, 3.718], 2
1.771, ['corpus et'], [1.771, 3.452, 4.865, 4.892, 5.235], 5
1.772, ['in concilio'], [1.772, 2.564, 3.806], 3
1.773, ['poterit res'], [1.773, 4.235], 2
1.774, ['cum corpore, ut'], [1.774, 5.562, 6.1059], 3

1.777, ['cum terra'], [1.777, 2.993], 2
1.780, ['quod contra'], [1.780, 1.82, 2.280, 4.348], 4
1.780, ['contra pugnet et'], [1.780, 2.794], 2
1.781, ['quo minus esse'], [1.781, 2.787, 3.1090], 3
1.782, ['Quin etiam finis dum', 'Quare etiam atque etiam', 'Quin etiam quanto in', 'Quin etiam subito vi', 'Quin etiam repetunt a', 'Quin etiam quae cumque'], [1.782, 2.826, 3.487, 3.592, 4.335, 5.821], 6
1.782, ['a caelo'], [1.782, 1.788, 5.630], 3
1.782, ['atque ignibus'], [1.782, 6.269], 2
1.783, ['in auras'], [1.783, 3.222, 3.400, 3.570], 4
1.783, ['et primum'], [1.783, 5.291, 5.304], 3
1.783, ['vertere in'], [1.783, 4.142, 6.1171], 3
1.783, ['faciunt ignem'], [1.783, 6.305], 2
1.783, ['se vertere'], [1.783, 5.915], 2
1.787, ['haec inter'], [1.787, 5.78], 2
1.788, ['de terra'], [1.788, 2.999, 4.998, 6.1101, 6.477, 6.819], 6
1.788, ['ad sidera'], [1.788, 2.328], 2
1.789, ['quod facere haud ullo debent primordia'], [1.789, 2.750], 2
1.790, ['immutabile enim quiddam superare necessest,'], [1.790, 2.751], 2
1.791, ['ne res ad nihilum redigantur funditus omnes;'], [1.791, 2.752], 2
1.794, ['quapropter quoniam'], [1.794, 2.37, 3.130], 3
1.796, ['ex aliis'], [1.796, 2.778, 2.903, 2.981, 2.984, 3.966, 4.604, 6.1236], 8
1.798, ['quin potius'], [1.798, 4.127], 2
1.799, ['si forte'], [1.799, 2.440, 2.491, 2.630, 3.862, 4.126, 4.447, 6.146, 6.745, 6.746], 10
1.802, ['aliis rebus'], [1.802, 2.841, 3.314, 4.1261], 4
1.805, ['et nisi'], [1.805, 1.809], 2
1.807, ['pro parte'], [1.807, 4.550, 5.257], 3
1.808, ['non possint'], [1.808, 4.496], 2
1.809, ['scilicet et'], [1.809, 1.888, 1.901, 2.976, 4.1126, 4.848, 6.674], 7
1.809, ['aridus et'], [1.809, 1.864, 5.741], 3
1.810, ['vita quoque'], [1.810, 3.996, 4.507], 3
1.810, ['iam corpore'], [1.810, 3.218], 2
1.811, ['omnibus e nervis atque ossibus'], [1.811, 3.698], 2
1.812, ['dubio procul'], [1.812, 5.258, 6.1039], 3
1.813, ['ab rebus,'], [1.813, 6.921, 6.960], 3
1.814, ['ni mirum quia multa'], [1.814, 3.226], 2
1.814, ['quia multa modis'], [1.814, 4.1220], 2
1.815, ['multarum rerum in rebus'], [1.815, 1.896], 2
1.817, ['atque eadem'], [1.817, 1.911, 3.1023, 4.33, 5.250], 5
1.817, ['primordia saepe'], [1.817, 1.908], 2
1.818, ['cum quibus et quali positura contineantur'], [1.818, 1.909, 2.1008, 2.761], 4
1.819, ['dent motus'], [1.819, 2.885], 2
1.820, ['namque eadem caelum mare terras flumina solem'], [1.820, 2.1015], 2
1.821, ['eadem fruges arbusta'], [1.821, 2.1016], 2
1.822, ['verum aliis'], [1.822, 4.677], 2
1.823, ['etiam passim nostris in versibus ipsis'], [1.823, 2.688], 2
1.824, ['multa elementa vides multis communia verbis,'], [1.824, 2.689], 2
1.825, ['cum tamen inter se versus ac verba'], [1.825, 2.690], 2
1.825, ['verba necessest'], [1.825, 4.558], 2

1.826, ['et sonitu'], [1.826, 2.845], 2
1.827, ['permutato ordine'], [1.827, 5.185], 2
1.828, ['rerum quae sunt'], [1.828, 2.110], 2
1.832, ['patrii sermonis'], [1.832, 3.260], 2
1.833, ['sed tamen'], [1.833, 2.541, 3.553, 3.736, 4.689, 5.104], 6
1.835, ['pauxillis atque minutis'], [1.835, 1.836], 2
1.836, ['et de'], [1.836, 1.840], 2
1.840, ['de terris'], [1.840, 5.920, 6.633], 3
1.840, ['aurum et'], [1.840, 5.1423], 2
1.845, ['quare in'], [1.845, 2.284], 2
1.846, ['diximus ante.'], [1.846, 4.882], 2
1.846, ['errare atque'], [1.846, 2.10], 2
1.847, ['Adde quod absumunt', 'Adde quod inbecilla', 'Adde quod e'], [1.847, 4.1121, 6.330], 3
1.848, ['simili quae'], [1.848, 2.524], 2
1.850, ['res ulla'], [1.850, 2.1026, 4.238, 5.435], 4
1.850, ['neque ab exitio'], [1.850, 6.569], 2
1.851, ['nam quid in'], [1.851, 5.526], 2
1.854, ['ut opinor,'], [1.854, 2.184, 3.626, 3.964, 4.841, 5.1425, 5.6], 7
1.854, ['ex aequo'], [1.854, 3.125], 2
1.854, ['ubi ex'], [1.854, 6.914], 2
1.855, ['quam quae'], [1.855, 2.841, 4.103, 4.113, 4.66, 4.729, 6.184], 7
1.857, ['neque autem'], [1.857, 4.152, 5.366, 6.103, 6.779], 5
1.857, ['posse neque'], [1.857, 5.310], 2
1.857, ['res posse'], [1.857, 5.292], 2
1.858, ['de nihilo'], [1.858, 2.287], 2
1.860, ['scire licet nobis'], [1.860, 3.867], 2
1.860, ['venas et'], [1.860, 3.566], 2
1.862, ['esse et habere'], [1.862, 6.983], 2
1.863, ['et omnino'], [1.863, 3.496, 5.1433], 3
1.864, ['fiet uti'], [1.864, 1.919, 1.982], 3
1.865, ['ex alienigenis'], [1.865, 1.872, 5.880], 3
1.867, ['cumque e'], [1.867, 5.1252], 2
1.868, ['sunt in'], [1.868, 4.312, 4.322, 4.671, 6.883], 5
1.869, ['ex alienigenis, quae'], [1.869, 1.874], 2
1.871, ['in lignis'], [1.871, 1.891, 2.897], 3
1.873, ['[praeterea tellus', '[praeterea pereunt,'], [1.873, 4.808], 2
1.873, ['corpora cumque'], [1.873, 6.960], 2
1.873, ['cumque alit'], [1.873, 5.257], 2
1.879, ['in promptu'], [1.879, 2.583, 2.868, 3.185, 4.97, 6.941], 6
1.879, ['et magis in'], [1.879, 5.1171], 2
1.880, ['quod tamen'], [1.880, 2.919, 3.1002, 3.1011], 4
1.880, ['tamen a vera'], [1.880, 2.645], 2
1.881, ['conveniebat enim'], [1.881, 2.822], 2
1.882, ['cum in'], [1.882, 2.54, 3.101, 4.474], 4
1.885, ['quoque saepe'], [1.885, 2.822, 4.598, 4.74, 6.1131, 6.503], 6
1.886, ['et latices'], [1.886, 5.262], 2
1.888, ['glebis terrarum'], [1.888, 5.142], 2
1.889, ['et fruges'], [1.889, 2.699], 2
1.889, ['herbarum genera'], [1.889, 5.921], 2

1.893, ['manifesta docet res,'], [1.893, 2.565, 6.139], 3
1.893, ['quorum nil fieri'], [1.893, 3.165], 2
1.894, ['non esse in'], [1.894, 3.98], 2
1.894, ['rebus res'], [1.894, 5.435], 2
1.895, ['semina multimodis'], [1.895, 4.644], 2
1.895, ['verum semina'], [1.895, 1.902], 2
1.897, ['in magnis'], [1.897, 2.107, 5.1164, 5.644, 5.824, 6.157], 6
1.897, ['saepe in'], [1.897, 2.317, 3.858, 4.1012], 4
1.898, ['vicina cacumina'], [1.898, 6.459], 2
1.901, ['et non est'], [1.901, 3.103], 2
1.904, ['si facta'], [1.904, 5.22], 2
1.907, ['paulo quod diximus ante,'], [1.907, 4.383], 2
1.907, ['iamne vides igitur,'], [1.907, 2.277], 2
1.910, ['et quos inter se dent motus accipiantque,'], [1.910, 2.1009, 2.762], 3
1.912, ['verba quoque ipsa'], [1.912, 4.554], 2
1.912, ['ignes et'], [1.912, 5.660], 2
1.915, ['Denique iam quae cumque in', 'Denique iam tuere hoc, circum'], [1.915, 5.318], 2
1.916, ['fieri non posse'], [1.916, 2.809], 2
1.917, ['corpora consimili'], [1.917, 2.736], 2
1.918, ['hac ratione'], [1.918, 6.866], 2
1.919, ['risu tremulo concussa'], [1.919, 2.976], 2
1.920, ['et lacrimis'], [1.920, 2.977], 2
1.920, ['ora genasque.'], [1.920, 3.469], 2
1.921, ['quod super est,'], [1.921, 2.39, 2.491, 2.546, 4.1283, 4.195, 4.768, 5.64, 6.1000], 9
1.922, ['quam sint'], [1.922, 2.335, 2.797, 6.188, 6.460], 5
1.922, ['nec me animi fallit quam'], [1.922, 5.97], 2
1.924, ['in pectus'], [1.924, 5.103], 2
1.925, ['quo nunc'], [1.925, 2.297, 2.608, 5.20], 4
1.926, ['Pieridum peragro loca nullius ante'], [1.926, 4.1], 2
1.927, ['trita solo. iuvat integros accedere fontis'], [1.927, 4.2], 2
1.928, ['iuvatque novos decerpere flores'], [1.928, 4.3], 2
1.929, ['insignemque meo capiti petere inde coronam,'], [1.929, 4.4], 2
1.930, ['unde prius nulli velarint tempora'], [1.930, 4.5], 2
1.931, ['primum quod magnis doceo de rebus et artis'], [1.931, 4.6], 2
1.932, ['religionum animum nodis exsolvere pergo,'], [1.932, 4.7], 2
1.933, ['deinde quod obscura de re tam lucida pango'], [1.933, 4.8], 2
1.934, ['carmina musaeo contingens cuncta lepore.'], [1.934, 4.9], 2
1.935, ['id quoque enim non ab nulla ratione videtur;'], [1.935, 4.10], 2
1.936, ['vel uti pueris absinthia taetra medentes'], [1.936, 4.11], 2
1.936, ['sed vel'], [1.936, 3.685], 2
1.937, ['cum dare conantur, prius oras pocula circum'], [1.937, 4.12], 2
1.938, ['contingunt mellis dulci flavoque liquore,'], [1.938, 4.13], 2
1.939, ['ut puerorum aetas inprovida ludificetur'], [1.939, 4.14], 2
1.940, ['labrorum tenus, interea perpotet amarum'], [1.940, 4.15], 2
1.941, ['absinthi laticem deceptaque non capiatur,'], [1.941, 4.16], 2
1.942, ['sed potius tali facto recreata valescat,'], [1.942, 4.17], 2
1.943, ['sic ego nunc, quoniam haec ratio plerumque videtur'], [1.943, 4.18], 2
1.944, ['tristior esse quibus non est tractata, retroque'], [1.944, 4.19], 2

1.945, ['volgus abhorret ab hac, volui tibi suaviloquenti'], [1.945, 4.20], 2
1.946, ['carmine Pierio rationem exponere nostram'], [1.946, 4.21], 2
1.947, ['et quasi musaeo dulci contingere'], [1.947, 4.22], 2
1.948, ['si tibi forte animum tali ratione tenere'], [1.948, 4.23], 2
1.949, ['versibus in nostris possem, dum perspicis omnem'], [1.949, 4.24], 2
1.951, ['Sed quoniam docui solidissima', 'Sed quoniam docui cunctarum'], [1.951, 4.45], 2
1.952, ['per aevom,'], [1.952, 3.605], 2
1.954, ['item quod'], [1.954, 4.372], 2
1.958, ['quod est'], [1.958, 3.518, 3.805, 5.865], 4
1.962, ['quo non'], [1.962, 6.1136], 2
1.963, ['quoniam nihil'], [1.963, 2.37, 2.856, 4.1110], 4
1.965, ['nec refert'], [1.965, 2.813, 4.630], 3
1.966, ['in omnis'], [1.966, 5.469], 2
1.968, ['Praeterea si iam'], [1.968, 3.680], 2
1.975, ['et omne'], [1.975, 6.1121, 6.441], 3
1.977, ['sive est'], [1.977, 3.251], 2
1.979, ['non est'], [1.979, 2.496, 3.868, 4.1081, 4.768, 4.950, 5.539, 5.546], 8
1.980, ['ubi cumque'], [1.980, 6.100], 2
1.984, ['summai totius'], [1.984, 6.650, 6.679], 3
1.986, ['copia materiai'], [1.986, 2.281], 2
1.987, ['ponderibus solidis'], [1.987, 2.88], 2
1.989, ['nec foret'], [1.989, 2.223], 2
1.990, ['materies omnis'], [1.990, 2.949], 2
1.994, ['confluere et'], [1.994, 5.668], 2
1.999, ['atque aëra'], [1.999, 2.230], 2
1.1000, ['et contra'], [1.1000, 6.1095, 6.717], 3
1.1000, ['mare et'], [1.1000, 2.1109], 2
1.1001, ['nihil est quod'], [1.1001, 1.430, 1.652, 4.96], 4
1.1001, ['quidem vero'], [1.1001, 2.652], 2
1.1002, ['est igitur natura'], [1.1002, 3.237], 2
1.1002, ['natura loci spatiumque'], [1.1002, 5.370], 2
1.1003, ['quod neque'], [1.1003, 5.474], 2
1.1004, ['perpetuo possint aevi labentia tractu'], [1.1004, 5.1216], 2
1.1005, ['facere ut'], [1.1005, 4.793, 5.1049, 5.183, 5.843, 6.407], 6
1.1005, ['nec prorsum'], [1.1005, 1.1092, 1.748, 3.1088], 4
1.1006, ['usque adeo'], [1.1006, 1.412, 1.497, 2.1163, 2.366, 3.254, 3.320, 3.391, 3.523, 3.622, 4.1113, 4.1120, 4.1257, 4.172, 4.196, 4.332, 4.401, 4.562, 5.122, 5.1233, 5.300, 6.1047, 6.1212, 6.237, 6.458, 6.753, 6.916], 27
1.1007, ['in cunctas undique partis.'], [1.1007, 2.131], 2
1.1008, ['rerum summa'], [1.1008, 1.756, 2.75], 3
1.1010, ['et quod'], [1.1010, 2.1000, 2.586, 4.491, 5.685, 6.1107], 6
1.1010, ['quod inane autem est'], [1.1010, 1.1079], 2
1.1011, ['sic alternis'], [1.1011, 5.701], 2
1.1012, ['aut etiam'], [1.1012, 3.1068, 3.46, 4.339, 4.936, 6.1128, 6.1198, 6.1202], 8
1.1014, ['nec mare nec'], [1.1014, 2.1155, 5.434], 3
1.1014, ['nec tellus'], [1.1014, 3.26], 2
1.1017, ['suo de'], [1.1017, 4.123], 2
1.1018, ['magnum per inane'], [1.1018, 1.1103, 2.65], 3
1.1021, ['nam certe neque consilio primordia rerum'], [1.1021, 5.419], 2

1.1022, ['ordine se suo quaeque sagaci mente locarunt'], [1.1022, 5.420], 2
1.1023, ['nec quos quaeque'], [1.1023, 5.421], 2
1.1023, ['motus pepigere'], [1.1023, 5.421], 2
1.1024, ['per omne'], [1.1024, 2.1049, 2.547, 5.527], 4
1.1024, ['sed quia multa modis multis'], [1.1024, 5.422], 2
1.1024, ['mutata per'], [1.1024, 3.768], 2
1.1025, ['ex infinito'], [1.1025, 1.1036, 1.997, 2.255, 2.530, 2.574, 5.408, 5.414, 6.666], 9
1.1025, ['percita plagis,'], [1.1025, 2.715], 2
1.1026, ['motus et'], [1.1026, 2.138, 3.116, 3.247], 4
1.1026, ['omne genus'], [1.1026, 1.160], 2
1.1027, ['in talis'], [1.1027, 5.192, 5.193], 3
1.1028, ['haec rerum consistit summa'], [1.1028, 1.235], 2
1.1028, ['qualibus haec rerum'], [1.1028, 5.194], 2
1.1029, ['et multos'], [1.1029, 5.459], 2
1.1029, ['per annos'], [1.1029, 5.95], 2
1.1029, ['servata per'], [1.1029, 1.549], 2
1.1030, ['semel in'], [1.1030, 4.605], 2
1.1031, ['efficit ut'], [1.1031, 4.245], 2
1.1032, ['et solis'], [1.1032, 1.1090, 2.1032, 5.668], 4
1.1034, ['aetheris ignes.'], [1.1034, 5.448], 2
1.1035, ['nisi materiai'], [1.1035, 1.516], 2
1.1037, ['in tempore'], [1.1037, 1.320, 1.327, 1.351, 4.793, 5.1081, 6.230, 6.813], 8
1.1038, ['nam vel uti'], [1.1038, 2.720, 4.11], 3
1.1038, ['cibo natura animantum'], [1.1038, 1.194], 2
1.1040, ['simul ac'], [1.1040, 4.782, 6.402, 6.440], 4
1.1041, ['aliqua ratione aversa'], [1.1041, 5.413], 2
1.1043, ['quae cumque est'], [1.1043, 5.723], 2
1.1046, ['inter dum'], [1.1046, 1.273, 1.293, 2.282, 2.703, 2.804, 3.381, 4.1112, 4.1130, 4.1278, 4.1280, 4.133, 4.138, 5.1099, 5.1126, 5.464, 5.588, 5.603, 5.608, 6.111, 6.640, 6.912, 6.975], 23
1.1046, ['et una'], [1.1046, 3.801, 4.255, 5.717], 4
1.1047, ['principiis rerum'], [1.1047, 2.789], 2
1.1048, ['ut possint'], [1.1048, 2.470, 2.563, 2.915, 6.240], 5
1.1049, ['quare etiam atque etiam'], [1.1049, 1.295, 2.1064, 2.243, 2.377, 3.228, 3.576, 3.687, 4.216, 4.289, 4.856], 11
1.1050, ['et tamen'], [1.1050, 2.331, 2.898, 3.924, 4.1149, 4.473, 4.811, 5.1125, 5.1177, 5.1421, 5.476, 5.768], 12
1.1050, ['tamen ut'], [1.1050, 2.859, 2.919, 4.362], 4
1.1051, ['opus est'], [1.1051, 1.206, 2.1149, 5.229, 5.263, 6.1081, 6.365], 7
1.1052, ['Illud in his rebus ne te deducere vero', 'Illud in his rebus longe fuge credere, Memmi,', 'Illud in his rebus vereor, ne forte rearis', 'Illud in his quoque te rebus cognoscere avemus,', 'Illud in his rebus tacitus ne forte requiras,'], [1.1052, 1.370, 1.80, 2.216, 5.1091], 5
1.1053, ['in medium'], [1.1053, 1.1056, 1.1084, 5.1160], 4
1.1054, ['atque ideo'], [1.1054, 1.1089, 2.386, 2.395, 3.535, 3.584, 6.328], 7
1.1054, ['mundi naturam'], [1.1054, 5.157], 2
1.1056, ['quod in'], [1.1056, 2.1011, 3.830, 4.1134, 4.1137, 4.499, 5.824, 6.1107, 6.1108, 6.937], 10
1.1056, ['sint omnia'], [1.1056, 1.376, 4.162], 3

1.1056, ['summa atque'], [1.1056, 2.488], 2
1.1057, ['in se'], [1.1057, 1.366, 1.397, 1.729, 1.862, 2.1031, 2.190, 2.586, 2.589, 2.810, 3.115, 4.616, 6.898], 13
1.1057, ['posse in'], [1.1057, 2.603, 5.292], 3
1.1058, ['et quae'], [1.1058, 2.300, 2.346, 4.177, 4.738, 5.1132, 5.70, 5.940, 6.528], 9
1.1058, ['pondera sunt'], [1.1058, 5.544], 2
1.1058, ['sub terris'], [1.1058, 5.697], 2
1.1059, ['in terraque'], [1.1059, 6.398], 2
1.1060, ['rerum simulacra'], [1.1060, 4.130, 4.164, 4.210, 4.321, 4.977], 6
1.1060, ['quae nunc'], [1.1060, 2.1033, 2.1156, 2.1160, 5.940], 5
1.1060, ['per aquas quae'], [1.1060, 2.230], 2
1.1060, ['nunc rerum'], [1.1060, 5.1008], 2
1.1061, ['simili ratione'], [1.1061, 2.1073, 2.1084, 2.299, 2.377, 2.857, 3.572, 4.163, 4.754, 5.910], 10
1.1061, ['et simili'], [1.1061, 5.1260], 2
1.1062, ['in loca'], [1.1062, 2.1073, 4.1043, 5.1255, 6.1133, 6.580], 6
1.1062, ['neque posse'], [1.1062, 2.603, 4.238], 3
1.1062, ['loca caeli'], [1.1062, 5.694], 2
1.1063, ['magis quam'], [1.1063, 6.154, 6.188], 3
1.1063, ['corpora nostra'], [1.1063, 2.876], 2
1.1063, ['quam corpora'], [1.1063, 6.1286], 2
1.1064, ['sponte sua'], [1.1064, 1.214, 2.1059, 2.1158, 2.193, 3.1042, 4.131, 4.481, 4.736, 5.1147, 5.212, 5.79, 5.804, 5.872, 5.961, 6.1021], 16
1.1064, ['in caeli'], [1.1064, 2.1039, 6.452], 3
1.1064, ['caeli templa'], [1.1064, 6.1228], 2
1.1065, ['cum videant'], [1.1065, 6.567], 2
1.1067, ['dividere et'], [1.1067, 5.439], 2
1.1070, ['nihil esse potest'], [1.1070, 1.516, 4.368], 3
1.1071, ['si iam'], [1.1071, 1.396, 2.974, 3.540, 3.767, 3.844, 3.956, 4.1180], 8
1.1072, ['possit ibi'], [1.1072, 6.139], 2
1.1073, ['longe ratione'], [1.1073, 1.880, 6.853], 3
1.1074, ['omnis enim'], [1.1074, 2.266, 2.312, 2.517, 2.749], 5
1.1074, ['locus ac spatium, quod'], [1.1074, 1.426], 2
1.1076, ['qua cumque'], [1.1076, 4.371, 5.1252], 3
1.1077, ['corpora cum'], [1.1077, 1.566, 2.217], 3
1.1077, ['locus est,'], [1.1077, 2.184], 2
1.1077, ['nec quisquam'], [1.1077, 3.930], 2
1.1079, ['nec quod'], [1.1079, 3.986], 2
1.1080, ['quin, sua quod natura petit, concedere'], [1.1080, 2.237], 2
1.1081, ['haud igitur possunt'], [1.1081, 1.237], 2
1.1081, ['tali ratione'], [1.1081, 1.395], 2
1.1082, ['in concilium'], [1.1082, 2.563], 2
1.1082, ['res in'], [1.1082, 3.206], 2
1.1083, ['quoniam non omnia corpora'], [1.1083, 2.834], 2
1.1083, ['Praeterea quoniam non'], [1.1083, 2.817], 2
1.1085, ['et quasi'], [1.1085, 2.135, 2.446, 2.69, 2.79, 3.595, 4.1016, 4.161, 4.190, 4.198, 4.249, 4.989, 6.445, 6.482, 6.493, 6.571, 6.846], 17
1.1085, ['quae corpore'], [1.1085, 1.518, 1.883, 2.452], 4
1.1086, ['e montibus'], [1.1086, 5.663], 2
1.1087, ['at contra tenuis'], [1.1087, 4.95], 2

1.1087, ['aëris auras'], [1.1087, 6.1227], 2
1.1088, ['a medio'], [1.1088, 1.1091], 2
1.1088, ['simul a'], [1.1088, 6.1024], 2
1.1089, ['totum circum'], [1.1089, 5.915], 2
1.1090, ['per caeli'], [1.1090, 5.521], 2
1.1093, ['a terris'], [1.1093, 2.1111, 2.729, 4.417, 5.491], 5
1.1094, ['* * *'], [1.1094, 1.1095, 1.1096, 1.1097, 1.1098, 1.1099, 1.1100, 1.1101], 8
1.1102, ['moenia mundi'], [1.1102, 1.73, 2.1144, 3.16, 5.119, 5.1213], 6
1.1104, ['consimili ratione'], [1.1104, 1.885, 2.506, 3.282, 3.74, 6.1131, 6.506, 6.881], 8
1.1104, ['cetera consimili'], [1.1104, 1.842, 2.676], 3
1.1106, ['et omnis'], [1.1106, 2.1097, 2.945, 3.1044, 3.115, 3.504, 4.865, 6.1000], 8
1.1106, ['pedibus raptim'], [1.1106, 6.605], 2
1.1108, ['per inane profundum,'], [1.1108, 2.96], 2
1.1111, ['nam qua cumque'], [1.1111, 1.507], 2
1.1112, ['haec rebus'], [1.1112, 4.929], 2
1.1115, ['namque alid ex alio'], [1.1115, 5.1456], 2
1.1115, ['nec tibi'], [1.1115, 6.1081], 2
1.1117, ['ita res'], [1.1117, 5.678], 2
2.10, ['atque viam'], [2.10, 6.27], 2
2.12, ['noctes atque dies niti praestante labore'], [2.12, 3.62], 2
2.13, ['ad summas emergere'], [2.13, 3.63], 2
2.14, ['hominum mentes,'], [2.14, 4.1011], 2
2.15, ['in tenebris'], [2.15, 2.54, 3.77, 4.231, 4.348, 5.175], 6
2.17, ['sibi naturam'], [2.17, 3.641], 2
2.19, ['iucundo sensu'], [2.19, 2.399], 2
2.20, ['ergo corpoream'], [2.20, 3.175, 4.540], 3
2.22, ['delicias quoque'], [2.22, 5.1450], 2
2.22, ['quoque uti'], [2.22, 4.473], 2
2.23, ['inter dum,'], [2.23, 6.1043], 2
2.29, ['cum tamen'], [2.29, 2.71, 3.107, 4.718, 5.16, 6.140, 6.678], 7
2.29, ['tamen inter se'], [2.29, 2.348, 2.697, 5.922, 6.454], 5
2.29, ['inter se prostrati in gramine molli'], [2.29, 5.1392], 2
2.30, ['propter aquae rivom sub ramis arboris'], [2.30, 5.1393], 2
2.31, ['non magnis opibus iucunde corpora'], [2.31, 5.1394], 2
2.32, ['praesertim cum tempestas'], [2.32, 5.1395], 2
2.32, ['et anni'], [2.32, 5.1395], 2
2.33, ['viridantis floribus herbas.'], [2.33, 5.1396], 2
2.36, ['quam si'], [2.36, 3.183], 2
2.37, ['in corpore'], [2.37, 2.673, 2.852, 2.958, 3.169, 3.274, 3.541, 3.587, 3.666, 3.719, 3.774, 3.800, 4.1221, 4.714, 4.834, 6.1034], 16
2.39, ['est, animo'], [2.39, 3.597], 2
2.40, ['per loca'], [2.40, 4.573, 4.596, 5.1387, 6.557], 5
2.40, ['si non forte'], [2.40, 3.782], 2
2.44, ['tibi tum'], [2.44, 4.406], 2
2.50, ['reges rerumque'], [2.50, 3.1028], 2
2.53, ['quid dubitas quin'], [2.53, 3.582], 2
2.55, ['nam vel uti pueri trepidant atque omnia caecis'], [2.55, 3.87, 6.35], 3
2.56, ['in tenebris metuunt, sic nos in luce timemus'], [2.56, 3.88, 6.36], 3
2.57, ['inter dum, nihilo quae sunt metuenda magis quam'], [2.57, 3.89, 6.37], 3

2.58, ['quae pueri in tenebris pavitant finguntque futura.'], [2.58, 3.90, 6.38], 3
2.63, ['corpora res'], [2.63, 4.55], 2
2.64, ['et qua vi'], [2.64, 6.380], 2
2.64, ['qua vi facere'], [2.64, 6.244], 2
2.66, ['expediam: tu'], [2.66, 4.931], 2
2.69, ['fluere omnia'], [2.69, 5.280], 2
2.76, ['semper, et'], [2.76, 3.966], 2
2.80, ['Sidera cessare', 'Si cessare'], [2.80, 4.391], 2
2.80, ['primordia posse'], [2.80, 2.967], 2
2.86, ['fit ut'], [2.86, 4.1279, 4.154, 5.265, 5.635, 6.169, 6.706, 6.811], 8
2.87, ['neque enim'], [2.87, 3.740, 3.882, 4.883, 5.1053, 5.1119, 5.315, 5.493, 6.263, 6.641], 10
2.91, ['nil esse in'], [2.91, 6.941], 2
2.91, ['ubi corpora'], [2.91, 6.451], 2
2.94, ['et certa ratione'], [2.94, 5.1439], 2
2.95, ['quies est'], [2.95, 3.211], 2
2.99, ['pars etiam'], [2.99, 4.946, 5.255], 3
2.100, ['et quae cumque'], [2.100, 4.493], 2
2.100, ['quae cumque magis'], [2.100, 3.201], 2
2.102, ['indupedita suis'], [2.102, 5.876, 6.1010], 3
2.103, ['et fera'], [2.103, 6.592], 2
2.104, ['et cetera'], [2.104, 2.812, 3.390, 4.509, 4.669, 4.769, 5.893], 7
2.105, ['magnum per inane vagantur,'], [2.105, 2.109], 2
2.106, ['longe longeque'], [2.106, 3.69, 6.690], 3
2.108, ['nobis et'], [2.108, 3.375, 4.455], 3
2.108, ['lumina solis.'], [2.108, 2.654], 2
2.112, ['Cuius, uti', 'Cuius ego'], [2.112, 5.55], 2
2.113, ['et instat.'], [2.113, 3.651], 2
2.114, ['contemplator enim, cum'], [2.114, 6.189], 2
2.116, ['per inane'], [2.116, 2.151, 2.158, 2.202, 2.222, 2.238, 2.83, 3.17, 3.27, 6.838], 10
2.117, ['in ipso'], [2.117, 3.128, 3.506, 3.575, 3.684, 6.1128, 6.749], 7
2.118, ['et vel ut'], [2.118, 3.833], 2
2.118, ['proelia pugnas'], [2.118, 4.1009], 2
2.119, ['nec dare'], [2.119, 5.872], 2
2.122, ['in magno'], [2.122, 6.450], 2
2.122, ['quale sit'], [2.122, 4.255], 2
2.124, ['et vestigia'], [2.124, 4.365, 4.705], 3
2.125, ['Hoc etiam in primis', 'Hoc etiam faciunt ubi', 'Hoc etiam magis haec', 'Hac etiam fit uti'], [2.125, 3.913, 4.209, 6.204], 4
2.125, ['haec animum'], [2.125, 2.840], 2
2.126, ['solis radiis'], [2.126, 5.705, 6.273, 6.874], 4
2.126, ['corpora quae'], [2.126, 6.484], 2
2.126, ['in solis'], [2.126, 2.140], 2
2.126, ['quae in'], [2.126, 3.390], 2
2.127, ['motus quoque'], [2.127, 2.314], 2
2.129, ['enim plagis'], [2.129, 6.1020], 2
2.131, ['nunc huc'], [2.131, 5.64], 2
2.132, ['a principiis'], [2.132, 2.138, 2.861], 3
2.132, ['principiis est'], [2.132, 2.757], 2

2.134, ['inde ea'], [2.134, 4.890, 6.456], 3
2.134, ['sunt corpora'], [2.134, 5.408], 2
2.135, ['sunt ad'], [2.135, 3.238], 2
2.141, ['quibus id'], [2.141, 5.1185], 2
2.142, ['quae mobilitas'], [2.142, 4.177], 2
2.143, ['cognoscere, Memmi.'], [2.143, 5.1282], 2
2.143, ['licet hinc'], [2.143, 5.597], 2
2.145, ['et variae'], [2.145, 2.344], 2
2.145, ['nemora avia'], [2.145, 2.346], 2
2.146, ['aëra per'], [2.146, 4.302, 5.580], 3
2.146, ['loca vocibus'], [2.146, 4.607], 2
2.149, ['omnibus in'], [2.149, 4.564, 4.651, 5.670], 4
2.149, ['in promptu manifestumque esse'], [2.149, 2.246], 2
2.153, ['nec singillatim'], [2.153, 4.89], 2
2.154, ['inter se conque'], [2.154, 6.456], 2
2.157, ['at quae'], [2.157, 4.568], 2
2.158, ['cum per'], [2.158, 4.272, 6.557], 3
2.159, ['suis e partibus'], [2.159, 3.545], 2
2.159, ['atque ipsa'], [2.159, 5.1030], 2
2.159, ['ipsa suis'], [2.159, 4.1280], 2
2.160, ['in quem'], [2.160, 4.179], 2
2.162, ['lumina solis'], [2.162, 5.462], 2
2.163, ['multiplexque loci spatium transcurrere eodem'], [2.163, 4.207], 2
2.164, ['tempore quo solis pervolgant'], [2.164, 4.208], 2
2.165, ['primordia singula'], [2.165, 2.396, 3.372], 3
2.167, ['At liquidas', 'At quidam'], [2.167, 5.1379], 2
2.168, ['non posse'], [2.168, 2.247, 2.264, 4.113, 5.756, 6.236], 6
2.169, ['tanto opere'], [2.169, 3.689, 3.769, 4.109, 5.30], 5
2.171, ['et iam'], [2.171, 6.1132], 2
2.173, ['per Veneris'], [2.173, 2.437, 5.848], 3
2.177, ['rerum ignorem primordia quae sint,'], [2.177, 5.195], 2
2.178, ['hoc tamen ex ipsis caeli rationibus ausim'], [2.178, 5.196], 2
2.179, ['confirmare aliisque ex rebus reddere multis,'], [2.179, 5.197], 2
2.180, ['esse creatam'], [2.180, 3.229, 4.478], 3
2.180, ['nequaquam nobis divinitus esse'], [2.180, 5.198], 2
2.181, ['tanta stat praedita culpa.'], [2.181, 5.199], 2
2.182, ['quae tibi'], [2.182, 3.206, 5.155], 3
2.183, ['quod super est'], [2.183, 3.906, 5.206], 3
2.184, ['in his'], [2.184, 2.891, 3.394], 3
2.184, ['est, ut'], [2.184, 3.968], 2
2.185, ['sua vi'], [2.185, 5.206], 2
2.187, ['ne tibi'], [2.187, 6.187], 2
2.188, ['gignuntur et'], [2.188, 4.131], 2
2.189, ['fruges arbustaque'], [2.189, 2.699, 5.921], 3
2.190, ['deorsum cuncta ferantur.'], [2.190, 2.202], 2
2.190, ['cum deorsum'], [2.190, 2.217], 2
2.190, ['est, cum'], [2.190, 5.126], 2
2.191, ['tecta domorum'], [2.191, 6.223], 2
2.192, ['et celeri flamma'], [2.192, 6.224], 2
2.193, ['putandum est.'], [2.193, 2.809], 2

2.194, ['quod genus e'], [2.194, 3.327], 2
2.196, ['nonne vides etiam'], [2.196, 2.263, 4.1201, 4.1286, 5.602, 5.646, 6.1103, 6.806], 8
2.196, ['tigna trabesque'], [2.196, 6.241], 2
2.198, ['et magna'], [2.198, 4.576], 2
2.201, ['est in'], [2.201, 3.274, 3.391, 4.815, 4.97], 5
2.201, ['in se,'], [2.201, 6.877], 2
2.201, ['tamen haec,'], [2.201, 2.898], 2
2.203, ['per auras'], [2.203, 3.544, 3.752, 4.678, 4.703, 5.786], 6
2.203, ['posse per'], [2.203, 3.533, 3.759], 3
2.203, ['quoque posse'], [2.203, 4.1087], 2
2.205, ['pondera, quantum in <se> est,'], [2.205, 2.247], 2
2.206, ['faces caeli'], [2.206, 5.1191], 2
2.207, ['nonne vides'], [2.207, 4.122, 4.807, 5.382, 6.813, 6.900], 6
2.208, ['quas cumque'], [2.208, 6.921], 2
2.209, ['in terras'], [2.209, 2.212, 2.215, 2.714, 6.446, 6.496, 6.634], 7
2.210, ['sol etiam'], [2.210, 4.300], 2
2.211, ['in partis et'], [2.211, 5.642], 2
2.212, ['igitur quoque'], [2.212, 6.317], 2
2.214, ['nunc hinc nunc illinc'], [2.214, 6.199], 2
2.217, ['rectum per inane'], [2.217, 2.226], 2
2.220, ['dicere possis.'], [2.220, 3.1025], 2
2.227, ['ex supero'], [2.227, 2.241, 2.248], 3
2.228, ['quae possint'], [2.228, 2.443, 2.623, 4.68, 5.367, 5.530, 6.453, 6.772], 8
2.229, ['avius a vera longe ratione'], [2.229, 2.82], 2
2.232, ['propterea quia'], [2.232, 3.572, 4.1220, 4.186, 4.301, 4.349, 5.558, 5.920, 6.1049, 6.97], 10
2.233, ['rem quamque'], [2.233, 6.380], 2
2.244, ['plus quam'], [2.244, 5.988], 2
2.245, ['et id'], [2.245, 4.234], 2
2.246, ['esse videmus,'], [2.246, 2.47], 2
2.247, ['est, non'], [2.247, 4.768, 5.232], 3
2.248, ['quod cernere'], [2.248, 4.1231], 2
2.249, ['sed nihil'], [2.249, 2.7], 2
2.250, ['qui possit'], [2.250, 3.887, 4.175], 3
2.252, ['ordine certo'], [2.252, 5.1183], 2
2.256, ['per terras'], [2.256, 2.474, 2.706, 5.214, 5.268, 5.342, 5.911], 7
2.256, ['unde haec'], [2.256, 2.286, 3.318], 3
2.257, ['unde est'], [2.257, 2.472, 4.1048, 4.1086], 4
2.259, ['nec tempore'], [2.259, 2.293, 5.878], 3
2.259, ['tempore certo'], [2.259, 5.670], 2
2.260, ['sed ubi'], [2.260, 4.147, 4.283], 3
2.260, ['ubi ipsa'], [2.260, 2.313, 4.1031], 3
2.260, ['nec regione loci'], [2.260, 2.293], 2
2.261, ['his rebus'], [2.261, 4.160, 4.636, 4.663, 4.777, 5.620], 6
2.261, ['nam dubio procul'], [2.261, 6.249, 6.719], 3
2.261, ['sua cuique'], [2.261, 2.711, 5.540], 3
2.262, ['et hinc'], [2.262, 2.880], 2
2.265, ['de subito'], [2.265, 3.643], 2

2.267, ['per artus'], [2.267, 2.949, 2.964, 3.283, 3.376, 3.398, 3.529, 3.533, 3.586, 3.589, 3.768, 3.924, 4.1215, 5.851], 14
2.269, ['initum motus'], [2.269, 3.271], 2
2.271, ['per totum corpus'], [2.271, 5.842], 2
2.271, ['totum corpus et'], [2.271, 4.666], 2
2.271, ['et artus.'], [2.271, 3.738], 2
2.274, ['nam tum'], [2.274, 5.1391, 6.162], 3
2.274, ['totius corporis'], [2.274, 2.490], 2
2.279, ['esse in'], [2.279, 3.867, 4.1156, 4.1187, 4.237], 5
2.279, ['in pectore'], [2.279, 3.1057, 3.298, 6.34], 4
2.282, ['membra per artus'], [2.282, 6.797], 2
2.284, ['fateare necessest,'], [2.284, 3.470], 2
2.287, ['posse videmus.'], [2.287, 2.709], 2
2.289, ['res ipsa'], [2.289, 3.224, 3.47, 6.469], 4
2.289, ['sed ne'], [2.289, 2.718], 2
2.302, ['est per'], [2.302, 3.692, 6.1167], 3
2.305, ['ex omni'], [2.305, 3.30, 5.599, 6.1261, 6.610], 5
2.305, ['neque in'], [2.305, 2.570, 2.796, 3.623, 5.1422], 5
2.305, ['quicquam est'], [2.305, 3.274], 2
2.306, ['et omnem'], [2.306, 4.78], 2
2.307, ['naturam rerum'], [2.307, 3.15, 4.25], 3
2.307, ['et vertere'], [2.307, 5.831], 2
2.307, ['mutare et'], [2.307, 4.459], 2
2.308, ['Illud in his rebus mirari mitte, quod aestus', 'Illud in his rebus non est mirabile, quare,'], [2.308, 6.1056], 2
2.309, ['omnia cum'], [2.309, 3.835, 6.678], 3
2.309, ['sint in'], [2.309, 4.67], 2
2.311, ['praeter quam'], [2.311, 4.815], 2
2.316, ['saepe tamen'], [2.316, 3.120, 4.953], 3
2.317, ['nam saepe'], [2.317, 2.352, 4.136, 4.61, 5.884], 5
2.321, ['confusa videntur'], [2.321, 5.580], 2
2.321, ['quae nobis'], [2.321, 4.292], 2
2.323, ['cum loca'], [2.323, 5.760], 2
2.324, ['belli simulacra'], [2.324, 2.41], 2
2.325, ['ad caelum'], [2.325, 6.8], 2
2.325, ['se tollit'], [2.325, 3.878], 2
2.328, ['sidera mundi'], [2.328, 5.433], 2
2.329, ['et circum'], [2.329, 3.411, 4.400], 3
2.331, ['tamen est'], [2.331, 3.726], 2
2.332, ['videntur et'], [2.332, 4.137], 2
2.333, ['cunctarum exordia rerum'], [2.333, 3.31, 4.45], 3
2.334, ['et quam'], [2.334, 3.394, 5.1301, 5.99, 6.651, 6.814], 6
2.336, ['non quo multa parum simili sint praedita forma,'], [2.336, 2.723], 2
2.337, ['sed quia non volgo paria omnibus omnia constant.'], [2.337, 2.694, 2.724], 3
2.338, ['nam cum'], [2.338, 2.741, 3.374, 3.855, 4.246, 5.1204, 5.345, 6.215, 6.9], 9
2.338, ['sit eorum'], [2.338, 5.526], 2
2.340, ['non omnibus'], [2.340, 2.836], 2
2.342, ['genus humanum'], [2.342, 2.975, 3.1044, 5.1014, 5.1026, 5.71, 6.33], 7
2.343, ['armenta feraeque'], [2.343, 2.921, 4.1197, 5.228], 4
2.347, ['quorum unum quidvis'], [2.347, 4.126], 2

2.348, ['differre figuris.'], [2.348, 2.685], 2
2.349, ['nec ratione alia'], [2.349, 3.627, 4.108, 4.1197, 5.1352, 5.292, 5.348], 7
2.351, ['nec minus atque'], [2.351, 4.756], 2
2.352, ['ante deum'], [2.352, 5.1201], 2
2.369, ['quod natura'], [2.369, 4.859], 2
2.370, ['quisque fere'], [2.370, 4.962], 2
2.371, ['non tamen'], [2.371, 3.991, 4.362, 5.922], 4
2.380, ['dissimili inter se'], [2.380, 2.409, 6.982], 3
2.380, ['inter se quaedam'], [2.380, 6.1088], 2
2.381, ['est animi'], [2.381, 3.130, 3.450, 5.563], 4
2.384, ['dicere enim'], [2.384, 2.768], 2
2.385, ['magis e parvis'], [2.385, 3.244], 2
2.386, ['foramina quae'], [2.386, 4.650], 2
2.390, ['quibus est'], [2.390, 4.661, 4.815], 3
2.390, ['de quibus'], [2.390, 2.975], 2
2.391, ['et quamvis subito'], [2.391, 4.155], 2
2.393, ['aut quia'], [2.393, 2.641, 3.823, 4.338, 5.654, 5.660, 5.696], 7
2.393, ['quia ni mirum'], [2.393, 6.1049, 6.232], 3
2.394, ['magis hamatis inter se'], [2.394, 2.405], 2
2.395, ['fit uti'], [2.395, 2.803, 3.119, 4.401, 4.944, 6.1028, 6.1033, 6.1079, 6.164, 6.465, 6.727, 6.801], 12
2.395, ['uti non'], [2.395, 5.604], 2
2.396, ['inter se possint'], [2.396, 5.191], 2
2.402, ['e levibus atque rutundis'], [2.402, 2.451, 5.455], 3
2.402, ['ut facile'], [2.402, 4.1282], 2
2.404, ['atque aspera'], [2.404, 2.424, 6.134, 6.778], 4
2.404, ['contra quae'], [2.404, 6.1095], 2
2.405, ['haec magis hamatis inter'], [2.405, 2.445], 2
2.408, ['et mala'], [2.408, 3.735], 2
2.408, ['omnia postremo'], [2.408, 2.456], 2
2.410, ['forte putes'], [2.410, 2.718], 2
2.410, ['tu forte'], [2.410, 2.494], 2
2.424, ['at contra quae cumque'], [2.424, 3.201], 2
2.426, ['etiam quae'], [2.426, 4.131], 2
2.426, ['nec levia'], [2.426, 5.475], 2
2.429, ['laedere possint,'], [2.429, 4.718], 2
2.430, ['de genere'], [2.430, 4.462, 6.676], 3
2.430, ['genere est'], [2.430, 4.185], 2
2.430, ['quo de'], [2.430, 6.290], 2
2.435, ['vel cum'], [2.435, 2.436, 5.383, 5.621], 4
2.435, ['cum res'], [2.435, 5.1444, 5.345], 3
2.435, ['corporis est'], [2.435, 3.324], 2
2.436, ['quae in corpore'], [2.436, 4.887], 2
2.438, ['corpore in ipso,'], [2.438, 3.590], 2
2.438, ['aut ex'], [2.438, 5.341], 2
2.440, ['ut si'], [2.440, 6.152, 6.759], 3
2.440, ['forte manu'], [2.440, 4.619], 2
2.441, ['tute tibi'], [2.441, 4.1150, 4.573, 6.73], 4
2.445, ['inter sese'], [2.445, 2.922, 5.185, 5.445, 6.776], 5
2.445, ['esse necessest'], [2.445, 3.216, 4.674], 3

2.447, ['in quo iam genere'], [2.447, 4.185], 2
2.447, ['genere in'], [2.447, 2.567], 2
2.451, ['illa quidem'], [2.451, 4.853], 2
2.453, ['namque papaveris'], [2.453, 3.196], 2
2.454, ['enim inter se'], [2.454, 3.193], 2
2.456, ['tempore cernis'], [2.456, 5.940], 2
2.458, ['si minus'], [2.458, 3.170, 3.928], 3
2.458, ['e levibus atque'], [2.458, 2.466], 2
2.458, ['omnia sunt'], [2.458, 5.867], 2
2.458, ['sunt e'], [2.458, 4.186], 2
2.459, ['at non'], [2.459, 3.776, 5.999], 3
2.461, ['cumque videmus'], [2.461, 2.905], 2
2.462, ['facile ut'], [2.462, 3.158, 4.197], 3
2.462, ['cognoscere possis'], [2.462, 3.117], 2
2.464, ['sed quod'], [2.464, 4.835], 2
2.465, ['mirabile debet'], [2.465, 5.666], 2
2.466, ['nam quod'], [2.466, 2.532, 3.41, 5.1412, 5.916, 6.1227], 6
2.468, ['nec tamen haec'], [2.468, 3.238, 6.1065], 3
2.470, ['possint et'], [2.470, 3.8, 4.1219], 3
2.472, ['Neptuni fluctu', 'Neptuni corpus'], [2.472, 6.1076], 2
2.472, ['principiis, unde'], [2.472, 3.318], 2
2.473, ['est ratio'], [2.473, 6.83], 2
2.474, ['ubi per'], [2.474, 6.1151, 6.191], 3
2.474, ['crebrius idem'], [2.474, 6.449], 2
2.477, ['quo magis in'], [2.477, 3.55, 5.1425], 3
2.478, ['Quod quoniam docui, pergam conectere rem quae'], [2.478, 2.522], 2
2.479, ['ex hoc apta fidem ducat, primordia'], [2.479, 2.523], 2
2.481, ['iam semina'], [2.481, 6.497], 2
2.482, ['corporis auctu.'], [2.482, 5.1171], 2
2.483, ['namque in'], [2.483, 4.1086], 2
2.485, ['e partibus'], [2.485, 5.615, 5.645], 3
2.487, ['unius corporis'], [2.487, 3.265], 2
2.491, ['forte voles'], [2.491, 2.494], 2
2.496, ['est ut credere possis'], [2.496, 4.856], 2
2.507, ['namque aliis aliud'], [2.507, 2.510], 2
2.509, ['ut diximus'], [2.509, 3.538, 4.73, 4.882], 4
2.509, ['omnia sic'], [2.509, 5.444, 5.470], 3
2.512, ['quoniam non'], [2.512, 2.790, 2.837, 4.950], 4
2.513, ['fateare necessest'], [2.513, 3.578, 3.678, 3.767, 4.216], 5
2.516, ['pari ratione'], [2.516, 4.191, 4.395], 3
2.517, ['enim calor'], [2.517, 5.806], 2
2.520, ['ancipiti quoniam'], [2.520, 6.377], 2
2.530, ['summam rerum'], [2.530, 6.649], 2
2.532, ['magis esse'], [2.532, 3.41, 6.773], 3
2.534, ['regione locoque'], [2.534, 4.786], 2
2.535, ['genere esse'], [2.535, 6.1061, 6.710], 3
2.535, ['multa licet'], [2.535, 5.910, 6.1080], 3
2.535, ['esse in eo'], [2.535, 3.863], 2
2.537, ['in genere'], [2.537, 2.821, 4.510], 3
2.541, ['tamen id quoque uti'], [2.541, 4.114], 2

2.541, ['quam lubet'], [2.541, 5.1116], 2
2.543, ['toto terrarum'], [2.543, 6.629], 2
2.549, ['qua vi'], [2.549, 5.77], 2
2.551, ['non, ut opinor,'], [2.551, 3.677, 3.877, 4.489], 4
2.552, ['sed quasi'], [2.552, 3.265, 4.363], 3
2.553, ['magnum mare'], [2.553, 6.505], 2
2.555, ['per terrarum'], [2.555, 2.613], 2
2.556, ['ut videantur'], [2.556, 4.979], 2
2.558, ['ut vitare'], [2.558, 6.409], 2
2.559, ['placidi pellacia'], [2.559, 5.1004], 2
2.560, ['sic tibi'], [2.560, 3.279], 2
2.563, ['numquam in'], [2.563, 2.775], 2
2.565, ['fieri manifesta docet'], [2.565, 6.249], 2
2.567, ['in quovis'], [2.567, 2.666, 2.782, 2.819, 3.266], 5
2.567, ['esse igitur'], [2.567, 3.664], 2
2.568, ['est, unde'], [2.568, 2.992, 4.1086], 3
2.581, ['Illud in his obsignatum quoque rebus habere', 'Illud in his rebus miserandum magnopere unum'], [2.581, 6.1230], 2
2.583, ['esse, in'], [2.583, 3.980], 2
2.584, ['genere ex'], [2.584, 6.1066], 2
2.585, ['nec quicquam'], [2.585, 2.936], 2
2.585, ['permixto semine'], [2.585, 2.687], 2
2.586, ['cumque magis'], [2.586, 6.100], 2
2.588, ['genera ac'], [2.588, 5.921], 2
2.592, ['nam multis'], [2.592, 4.317], 2
2.594, ['nitidas fruges arbustaque laeta'], [2.594, 2.994], 2
2.596, ['unde etiam'], [2.596, 5.1165, 5.1365, 5.1408], 4
2.596, ['frondes et pabula laeta'], [2.596, 2.875], 2
2.600, ['Graium docti cecinere poëtae', 'Graium ut cecinere poëtae,'], [2.600, 6.754], 2
2.600, ['veteres Graium'], [2.600, 5.405], 2
2.602, ['in spatio'], [2.602, 4.1287, 6.301], 3
2.603, ['in terra'], [2.603, 3.173, 3.644, 5.1258, 6.140, 6.261, 6.770, 6.956], 8
2.607, ['locis quia'], [2.607, 4.1242], 2
2.608, ['per magnas'], [2.608, 5.1161, 5.20], 3
2.617, ['qui in'], [2.617, 5.74, 6.1037, 6.844], 4
2.617, ['in oras'], [2.617, 6.763], 2
2.624, ['cum primum'], [2.624, 4.1038, 5.1063, 5.224, 5.461], 5
2.629, ['Curetas, qui', 'Curetas nomine'], [2.629, 2.633], 2
2.632, ['terrificas capitum'], [2.632, 5.1315], 2
2.636, ['in numerum'], [2.636, 2.637, 4.769, 4.788], 4
2.636, ['[armat et in', '[in se fracta'], [2.636, 5.1328], 2
2.645, ['sunt tamen'], [2.645, 2.859, 4.1252], 3
2.653, ['et quia'], [2.653, 4.802], 2
2.654, ['multa modis multis'], [2.654, 4.861, 6.508, 6.789], 4
2.656, ['Bacchi nomine', 'Bacchi cum'], [2.656, 3.221], 2
2.659, ['esse deum'], [2.659, 5.147], 2
2.660, ['Saepe itaque ex uno', 'Saepe itaque, in promptu'], [2.660, 3.106], 2
2.661, ['pecudes et'], [2.661, 3.52], 2
2.662, ['sub tegmine'], [2.662, 5.1016], 2
2.665, ['naturam et'], [2.665, 3.270, 3.952, 4.743], 4

2.666, ['tanta est in'], [2.666, 2.667], 2
2.668, ['quamvis animantem'], [2.668, 2.944], 2
2.672, ['Tum porro quae ducit et', 'Tum porro quae cumque igni'], [2.672, 2.788], 2
2.673, ['tamen haec'], [2.673, 3.103, 3.231, 4.718, 6.532], 5
2.677, ['multarum semina rerum'], [2.677, 6.1093, 6.662, 6.789], 4
2.679, ['Denique multa vides, quibus et', 'Deinde videre licet quam multae'], [2.679, 6.781], 2
2.679, ['color et'], [2.679, 6.1112], 2
2.681, ['sunt cum'], [2.681, 6.1059], 2
2.682, ['debent constare'], [2.682, 2.981], 2
2.683, ['in artus,'], [2.683, 6.594], 2
2.686, ['in unum'], [2.686, 3.534, 5.1012, 6.211, 6.274], 5
2.687, ['conveniunt et'], [2.687, 5.600], 2
2.688, ['Quippe etenim', 'Quin etiam'], [2.688, 5.449], 2
2.691, ['alia ex'], [2.691, 2.982, 4.821, 6.304], 4
2.691, ['ex aliis constare'], [2.691, 2.698], 2
2.692, ['multa parum'], [2.692, 6.1066, 6.779], 3
2.692, ['non quo'], [2.692, 6.71], 2
2.695, ['sic aliis'], [2.695, 4.684], 2
2.696, ['cum sint,'], [2.696, 2.917, 3.696, 5.1088], 4
2.697, ['consistere summa'], [2.697, 5.237], 2
2.699, ['humanum genus'], [2.699, 4.594], 2
2.700, ['posse putandum'], [2.700, 2.809], 2
2.700, ['tamen omnimodis'], [2.700, 5.1024], 2
2.708, ['certis certa'], [2.708, 2.817], 2
2.711, ['in artus'], [2.711, 3.708, 6.655], 3
2.715, ['e corpore'], [2.715, 4.1032, 4.1054, 4.157], 4
2.716, ['quae neque'], [2.716, 5.473, 5.895], 3
2.718, ['ne forte'], [2.718, 4.37, 5.114, 5.890], 4
2.721, ['res quaeque,'], [2.721, 4.86], 2
2.725, ['semina cum porro distent, differre'], [2.725, 4.649], 2
2.726, ['intervalla vias conexus pondera plagas'], [2.726, 5.441], 2
2.730, ['quaesita labore'], [2.730, 5.213], 2
2.732, ['oculos quae'], [2.732, 4.753], 2
2.732, ['quae candida'], [2.732, 5.1210], 2
2.733, ['nigro de semine'], [2.733, 2.824], 2
2.734, ['alium quemvis'], [2.734, 6.657], 2
2.737, ['enim color'], [2.737, 2.749], 2
2.739, ['corpora si'], [2.739, 6.1013], 2
2.740, ['posse animi'], [2.740, 5.127], 2
2.743, ['ex ineunte aevo'], [2.743, 3.344, 3.746, 5.537, 5.555, 5.859], 6
2.744, ['scire licet'], [2.744, 2.797, 2.815, 2.838, 2.930, 2.967, 3.874, 4.754, 5.245], 9
2.744, ['corpora posse'], [2.744, 3.724], 2
2.748, ['Quod quoniam', 'Quod <si>'], [2.748, 5.195], 2
2.748, ['nunc esse'], [2.748, 5.1376], 2
2.749, ['mutatur in'], [2.749, 5.274], 2
2.755, ['semina rerum,'], [2.755, 5.916], 2
2.756, ['ne tibi res redeant ad nihilum funditus omnes.'], [2.756, 2.864], 2
2.757, ['Praeterea si nulla'], [2.757, 5.324], 2
2.758, ['natura et'], [2.758, 4.1200, 5.1288, 5.831, 5.879, 6.1011], 6

2.758, ['sunt praedita'], [2.758, 4.100], 2
2.760, ['semina quaeque'], [2.760, 3.728], 2
2.763, ['rationem reddere possis,'], [2.763, 6.918], 2
2.764, ['cur ea quae'], [2.764, 2.820, 4.501], 3
2.765, ['fieri possint'], [2.765, 5.750], 2
2.768, ['saepe videmus,'], [2.768, 5.460], 2
2.769, ['illius et'], [2.769, 4.1062, 5.625], 3
2.771, ['fieri ut'], [2.771, 4.749], 2
2.771, ['videatur et'], [2.771, 3.727], 2
2.774, ['nam quo cumque'], [2.774, 4.380], 2
2.776, ['alio atque alio'], [2.776, 5.303], 2
2.778, ['saepe ex'], [2.778, 6.911], 2
2.778, ['ut saepe'], [2.778, 6.784], 2
2.780, ['cernimus esse'], [2.780, 2.985, 5.242], 3
2.781, ['aequore ponti'], [2.781, 6.628], 2
2.781, ['in aequore'], [2.781, 3.493], 2
2.782, ['aut alio'], [2.782, 2.794, 2.825, 4.1072], 4
2.782, ['quovis uno'], [2.782, 2.825], 2
2.787, ['possit res'], [2.787, 4.48], 2
2.789, ['non numquam'], [2.789, 6.1257], 2
2.790, ['ex albis'], [2.790, 2.823], 2
2.791, ['sed variis'], [2.791, 2.816], 2
2.792, ['quippe etenim multo'], [2.792, 4.728], 2
2.796, ['in lucem'], [2.796, 4.1189, 6.875], 3
2.799, ['propterea quod'], [2.799, 4.340, 5.1172, 5.450, 6.53, 6.829], 6
2.802, ['quae sita'], [2.802, 4.322], 2
2.803, ['namque alias'], [2.803, 4.1039], 2
2.804, ['quodam sensu fit uti'], [2.804, 4.448], 2
2.804, ['fit uti videatur'], [2.804, 4.433], 2
2.806, ['cum luce'], [2.806, 4.1126], 2
2.808, ['qui quoniam'], [2.808, 3.538], 2
2.809, ['sine eo fieri'], [2.809, 4.810], 2
2.810, ['Et quo', 'Et quoniam'], [2.810, 4.962], 2
2.812, ['atque aliud'], [2.812, 6.992], 2
2.815, ['opus esse'], [2.815, 4.1277], 2
2.818, ['et omnia'], [2.818, 4.840, 6.1051, 6.676], 4
2.827, ['magis est'], [2.827, 3.152, 3.396, 4.677, 5.1288, 6.843], 6
2.827, ['est ut'], [2.827, 3.726], 2
2.828, ['evanescere paulatim'], [2.828, 5.535], 2
2.829, ['ubi in'], [2.829, 6.149, 6.736], 3
2.832, ['noscere ut hinc possis'], [2.832, 3.124], 2
2.835, ['propterea fit'], [2.835, 4.242, 5.635], 3
2.836, ['ut non'], [2.836, 4.709, 5.192], 3
2.837, ['cernere quimus,'], [2.837, 4.241], 2
2.840, ['nec minus'], [2.840, 3.1093, 3.970, 5.1269, 5.672, 6.14, 6.550], 7
2.841, ['quae sunt aliis'], [2.841, 5.1132], 2
2.842, ['Sed ne forte putes ea demum sola', 'Sed ne forte putes solo spoliata colore'], [2.842, 4.129], 2
2.846, ['de corpore'], [2.846, 2.877, 3.223, 3.594, 3.608, 3.844, 3.992, 4.1056, 4.123, 4.308, 4.53, 4.541, 4.59, 4.875, 5.154, 5.487, 5.568, 5.576, 5.906, 6.76], 20

2.852, ['ut possit'], [2.852, 4.688, 4.776], 3
2.855, ['gignundis rebus'], [2.855, 5.181], 2
2.856, ['sonitum, quoniam'], [2.856, 4.527], 2
2.857, ['nec simili'], [2.857, 4.542, 5.897], 3
2.860, ['cava corpore'], [2.860, 6.127], 2
2.865, ['ea quae sentire videmus'], [2.865, 2.989], 2
2.865, ['Nunc ea quae'], [2.865, 4.292], 2
2.866, ['ex insensilibus'], [2.866, 2.888], 2
2.870, ['animalia gigni.'], [2.870, 2.901], 2
2.871, ['quippe videre licet'], [2.871, 5.899], 2
2.872, ['cum sibi'], [2.872, 4.1118], 2
2.873, ['ex imbribus'], [2.873, 5.341], 2
2.877, ['corpore saepe'], [2.877, 4.1221], 2
2.879, ['corpora viva'], [2.879, 5.476], 2
2.881, ['non alia longe ratione atque'], [2.881, 5.1030], 2
2.881, ['atque arida'], [2.881, 3.918], 2
2.882, ['et <in>'], [2.882, 5.1431], 2
2.883, ['iamne vides igitur'], [2.883, 4.214], 2
2.887, ['et varios'], [2.887, 5.1044], 2
2.888, ['ne credas'], [2.888, 5.305], 2
2.889, ['et terra'], [2.889, 4.761], 2
2.889, ['lapides et'], [2.889, 5.1284], 2
2.889, ['terra quod'], [2.889, 2.999], 2
2.891, ['his igitur rebus'], [2.891, 4.865, 5.480, 6.543], 4
2.891, ['illud in'], [2.891, 5.925], 2
2.896, ['quae sint.'], [2.896, 4.510, 6.534, 6.780], 4
2.898, ['cum sunt'], [2.898, 4.715, 5.1038, 6.207], 4
2.906, ['mortali consistere corpore'], [2.906, 5.65], 2
2.907, ['sed tamen esto iam'], [2.907, 4.1171], 2
2.907, ['posse haec'], [2.907, 5.1262], 2
2.912, ['nec manus'], [2.912, 3.631], 2
2.912, ['neque ulla'], [2.912, 3.23], 2
2.913, ['sola tenere.'], [2.913, 4.592], 2
2.914, ['linquitur ut'], [2.914, 5.795], 2
2.916, ['igitur rerum'], [2.916, 4.42], 2
2.921, ['scilicet ut'], [2.921, 4.893, 5.405, 6.846], 4
2.921, ['ut nequeant'], [2.921, 4.717], 2
2.925, ['atque alium'], [2.925, 4.286], 2
2.930, ['posse ex non'], [2.930, 2.932], 2
2.933, ['aut aliquo'], [2.933, 3.223], 2
2.934, ['illud erit'], [2.934, 4.794], 2
2.939, ['ni mirum quia'], [2.939, 3.492, 3.566, 4.599], 4
2.946, ['corporis atque animi'], [2.946, 3.334, 3.372, 3.558], 4
2.947, ['enim posituraе principiorum'], [2.947, 4.943], 2
2.947, ['dissoluuntur enim'], [2.947, 4.919], 2
2.950, ['a corpore'], [2.950, 3.625], 2
2.951, ['per caulas'], [2.951, 3.708, 4.620, 6.492], 4
2.952, ['nam quid'], [2.952, 6.1106, 6.139], 3
2.952, ['quid praeterea'], [2.952, 4.120], 2
2.953, ['discutere ac'], [2.953, 2.959], 2

2.954, ['fit quoque uti'], [2.954, 6.729], 2
2.958, ['et quasi iam leti'], [2.958, 3.67], 2
2.960, ['leti iam limine'], [2.960, 6.1157], 2
2.961, ['ad vitam'], [2.961, 3.397, 3.468, 4.831], 4
2.962, ['prope iam'], [2.962, 3.1047, 6.1271, 6.838], 4
2.962, ['ire et'], [2.962, 4.139], 2
2.963, ['est, ubi'], [2.963, 4.195], 2
2.963, ['ubi materiai'], [2.963, 5.407], 2
2.964, ['per viscera'], [2.964, 3.272, 3.300, 3.336, 5.928], 5
2.969, ['non sunt'], [2.969, 3.776], 2
2.972, ['haut igitur'], [2.972, 3.738, 5.279, 5.373, 6.489], 5
2.979, ['et sibi'], [2.979, 3.145], 2
2.984, ['aliis eadem'], [2.984, 4.786], 2
2.987, ['rationem reddere'], [2.987, 3.259, 4.572, 5.1168], 4
2.989, ['minus esse'], [2.989, 3.928, 6.14], 3
2.989, ['qui minus'], [2.989, 5.648], 2
2.995, ['et genus'], [2.995, 4.586, 5.865, 6.33], 4
2.995, ['genus humanum,'], [2.995, 5.1057, 5.1145], 3
2.998, ['merito maternum nomen adepta'], [2.998, 5.795], 2
2.999, ['fuit ante,'], [2.999, 4.819], 2
2.999, ['quod fuit'], [2.999, 5.1277], 2
2.1002, ['res ut'], [2.1002, 2.1005], 2
2.1004, ['aliis aliud'], [2.1004, 3.966], 2
2.1004, ['inde aliis'], [2.1004, 6.1117], 2
2.1006, ['puncto tempore'], [2.1006, 2.456, 4.214], 3
2.1007, ['ut noscas'], [2.1007, 2.685, 4.157, 5.290], 4
2.1011, ['in summis'], [2.1011, 4.67, 6.422], 3
2.1012, ['rebus et'], [2.1012, 5.1042, 5.1106, 5.181, 5.279], 5
2.1014, ['quali sint ordine quaeque'], [2.1014, 2.884], 2
2.1017, ['non omnia'], [2.1017, 2.837, 3.937, 5.444], 4
2.1017, ['pars est'], [2.1017, 4.438, 6.368], 3
2.1019, ['in rebus item'], [2.1019, 2.695], 2
2.1023, ['animum nobis'], [2.1023, 3.169, 4.747], 3
2.1024, ['ad auris'], [2.1024, 6.165], 2
2.1025, ['et nova'], [2.1025, 5.1366], 2
2.1025, ['nova se'], [2.1025, 4.375], 2
2.1026, ['neque tam'], [2.1026, 2.1028, 3.195, 5.474, 6.102], 5
2.1026, ['ea primum'], [2.1026, 2.894], 2
2.1027, ['magis ad'], [2.1027, 6.473, 6.729], 3
2.1028, ['nil adeo'], [2.1028, 5.572, 6.1170], 3
2.1033, ['omnia quae'], [2.1033, 2.321, 4.449, 4.608, 4.803, 4.870, 5.465, 6.612, 6.760], 9
2.1033, ['primum mortalibus'], [2.1033, 2.1158], 2
2.1034, ['si sint'], [2.1034, 6.759], 2
2.1036, ['aut minus'], [2.1036, 5.572, 5.730], 3
2.1037, ['nil, ut'], [2.1037, 5.39], 2
2.1041, ['ex animo'], [2.1041, 3.109, 3.915, 4.1195, 6.68], 5
2.1042, ['et si'], [2.1042, 3.844, 4.1051], 3
2.1042, ['si tibi'], [2.1042, 3.947], 2
2.1045, ['moenia mundi,'], [2.1045, 5.371, 6.123], 3

2.1047, ['atque animi'], [2.1047, 4.26, 4.908, 6.1149, 6.1156, 6.15], 6
2.1048, ['nobis in'], [2.1048, 3.120, 3.169, 4.284, 4.364], 5
2.1048, ['in cunctas undique partis'], [2.1048, 2.1134, 2.93, 4.725], 4
2.1052, ['esse putandumst,'], [2.1052, 3.927], 2
2.1052, ['iam pacto'], [2.1052, 5.1443], 2
2.1052, ['simile esse'], [2.1052, 2.372], 2
2.1053, ['undique cum'], [2.1053, 4.461], 2
2.1054, ['innumero numero'], [2.1054, 3.780], 2
2.1055, ['volitent aeterno percita motu,'], [2.1055, 3.33], 2
2.1058, ['et ipsa'], [2.1058, 4.131, 5.181, 6.510], 4
2.1058, ['cum praesertim'], [2.1058, 4.786], 2
2.1060, ['in cassum frustraque'], [2.1060, 5.1430], 2
2.1060, ['temere in cassum'], [2.1060, 5.1002], 2
2.1061, ['ea quae coniecta repente'], [2.1061, 5.429], 2
2.1062, ['magnarum rerum'], [2.1062, 5.430], 2
2.1063, ['terrai maris et caeli generisque animantum.'], [2.1063, 5.431], 2
2.1064, ['fateare necesse'], [2.1064, 3.543], 2
2.1065, ['esse alios'], [2.1065, 2.1075], 2
2.1066, ['avido complexu'], [2.1066, 5.470], 2
2.1066, ['hic est,'], [2.1066, 3.993], 2
2.1069, ['debent ni mirum'], [2.1069, 2.161, 2.340], 3
2.1070, ['et seminibus'], [2.1070, 4.648], 2
2.1071, ['non queat'], [2.1071, 4.946, 6.1075], 3
2.1073, ['quaeque queat'], [2.1073, 5.545], 2
2.1075, ['in partibus'], [2.1075, 5.676, 5.696], 3
2.1076, ['et varias'], [2.1076, 2.678, 5.716], 3
2.1076, ['et saecla ferarum.'], [2.1076, 4.413], 2
2.1080, ['in primis'], [2.1080, 2.447, 2.681, 4.779, 5.1413, 6.1237, 6.536], 7
2.1082, ['sic hominum'], [2.1082, 3.307], 2
2.1083, ['squamigerum pecudes et'], [2.1083, 2.343], 2
2.1085, ['cetera quae'], [2.1085, 4.509, 4.755, 6.50], 4
2.1085, ['terramque et'], [2.1085, 6.687], 2
2.1088, ['et tam'], [2.1088, 5.12], 2
2.1088, ['haec et'], [2.1088, 5.1404], 2
2.1088, ['nativo corpore'], [2.1088, 2.542], 2
2.1089, ['quam genus'], [2.1089, 5.902], 2
2.1090, ['Quae bene cognita si', 'Quae bene cum videas,'], [2.1090, 4.572], 2
2.1090, ['natura videtur'], [2.1090, 3.35], 2
2.1101, ['mittat et'], [2.1101, 3.933], 2
2.1103, ['quod saepe'], [2.1103, 2.768, 3.41, 6.1055], 4
2.1105, ['Multaque tum interiisse', 'Multaque in his', 'Multaque post mundi', 'Multaque tum tellus'], [2.1105, 4.777, 5.837, 5.855], 4
2.1106, ['et terrae'], [2.1106, 2.1109, 6.587], 3
2.1108, ['semina, quae'], [2.1108, 4.715], 2
2.1110, ['caeli domus'], [2.1110, 6.358], 2
2.1110, ['spatium caeli'], [2.1110, 6.820], 2
2.1111, ['procul et'], [2.1111, 6.1039, 6.258], 3
2.1112, ['locis ex'], [2.1112, 4.370], 2
2.1112, ['nam sua'], [2.1112, 2.711], 2
2.1113, ['ad sua'], [2.1113, 2.370, 4.684], 3

2.1113, ['et ad'], [2.1113, 3.144], 2
2.1118, ['ut fit ubi'], [2.1118, 2.829, 5.100], 3
2.1118, ['plus est'], [2.1118, 3.294], 2
2.1119, ['quam quod'], [2.1119, 3.47, 3.825, 3.928], 4
2.1119, ['quod fluit'], [2.1119, 5.507], 2
2.1122, ['nam quae cumque vides'], [2.1122, 5.857], 2
2.1124, ['quam de'], [2.1124, 2.390, 5.110, 6.117], 4
2.1124, ['se corpora'], [2.1124, 2.1135, 2.589], 3
2.1125, ['facile in venas cibus omnis'], [2.1125, 2.1136], 2
2.1126, ['ita sunt'], [2.1126, 2.859, 3.782, 6.1065], 4
2.1126, ['ut multa'], [2.1126, 4.926], 2
2.1128, ['nam certe'], [2.1128, 2.67, 4.1075, 4.270, 4.72, 4.739], 6
2.1128, ['fluere atque recedere corpora rebus'], [2.1128, 4.860], 2
2.1131, ['inde minutatim'], [2.1131, 5.1293, 5.1384], 3
2.1131, ['vires et'], [2.1131, 2.878], 2
2.1132, ['in partem'], [2.1132, 4.1050, 4.446, 5.589], 4
2.1134, ['est, in'], [2.1134, 3.993, 6.140], 3
2.1135, ['et a'], [2.1135, 3.429, 4.685, 5.1040, 5.754], 5
2.1136, ['nec facile'], [2.1136, 5.929], 2
2.1137, ['pro quam'], [2.1137, 3.199, 6.11], 3
2.1137, ['satis est,'], [2.1137, 2.1149, 6.704], 3
2.1138, ['queat tantum'], [2.1138, 5.591], 2
2.1144, ['Sic igitur terrae', 'Sic igitur magni'], [2.1144, 5.495], 2
2.1146, ['omnia debet'], [2.1146, 5.829], 2
2.1148, ['ne quiquam, quoniam'], [2.1148, 4.1110, 4.1133, 4.1188, 4.464, 5.1123, 5.1231, 5.1271, 5.1313, 5.1332, 5.388, 5.846], 12
2.1149, ['est natura'], [2.1149, 2.818, 3.191, 5.1288, 6.683], 5
2.1149, ['est, neque'], [2.1149, 3.340], 2
2.1150, ['Iamque adeo', 'Iamque rubrum'], [2.1150, 4.404], 2
2.1151, ['quae cuncta'], [2.1151, 5.1240], 2
2.1153, ['mortalia saecla'], [2.1153, 5.1169, 5.1238, 5.791, 5.988], 5
2.1153, ['ut opinor, enim'], [2.1153, 3.877], 2
2.1154, ['de caelo'], [2.1154, 5.793, 6.386], 3
2.1156, ['eadem quae'], [2.1156, 2.464, 4.231], 3
2.1156, ['ex se.'], [2.1156, 6.911], 2
2.1157, ['vinetaque laeta'], [2.1157, 5.1372], 2
2.1159, ['et pabula'], [2.1159, 4.1063], 2
2.1159, ['ipsa dedit'], [2.1159, 5.186], 2
2.1165, ['in cassum'], [2.1165, 5.1129], 2
2.1166, ['et cum tempora'], [2.1166, 6.359], 2
2.1173, ['nec tenet'], [2.1173, 3.649], 2
2.1174, ['defessa vetusto.'], [2.1174, 5.827], 2
3.1, ['E tenebris tantis tam clarum', 'E tenebris autem quae sunt'], [3.1, 4.312], 2
3.6, ['quid enim'], [3.6, 3.803, 5.165], 3
3.8, ['in cursu'], [3.8, 6.302, 6.321], 3
3.23, ['porro natura'], [3.23, 5.370], 2
3.24, ['res animi'], [3.24, 3.35], 2
3.27, ['sub pedibus'], [3.27, 5.1139, 5.1236], 3
3.29, ['quod sic natura'], [3.29, 6.31], 2
3.31, ['Et quoniam docui mundi', 'Et quoniam docui, cunctarum'], [3.31, 6.43], 2

3.32, ['qualia sint et quam variis distantia formis'], [3.32, 4.46], 2
3.33, ['sponte sua volitent aeterno percita'], [3.33, 4.47], 2
3.34, ['quove modo'], [3.34, 3.770, 4.28, 5.71, 5.776], 5
3.34, ['res ex his quaeque creari,'], [3.34, 4.48], 2
3.35, ['animi natura'], [3.35, 3.709, 5.127], 3
3.37, ['Athenaeis in', 'Acheruntis agendus,', 'Acherunte vagare.', 'Acherunte reamur', 'Acheruntis in', 'Acherunta rearis', 'Acherunte iacentem', 'Acherunte profundo', 'Acherunta reamur'], [3.37, 3.628, 3.979, 3.985, 4.170, 4.37, 6.251, 6.749, 6.763], 9
3.38, ['ab imo'], [3.38, 3.57, 5.163], 3
3.38, ['qui vitam'], [3.38, 3.550], 2
3.41, ['saepe homines'], [3.41, 3.85, 3.914], 3
3.42, ['Tartara taetra;', 'Tartara deditur', 'Tartara leti'], [3.42, 3.967, 5.1126], 3
3.43, ['animi naturam'], [3.43, 4.731], 2
3.51, ['et quo cumque'], [3.51, 4.424], 2
3.57, ['tum demum'], [3.57, 4.919, 5.888], 3
3.61, ['et inter dum'], [3.61, 4.571, 5.1086], 3
3.64, ['minimam partem'], [3.64, 6.1259], 2
3.65, ['et acris'], [3.65, 5.625], 2
3.74, ['ab eodem'], [3.74, 4.1087], 2
3.77, ['se in'], [3.77, 6.446], 2
3.81, ['ut sibi'], [3.81, 5.1266], 2
3.84, ['et in summa'], [3.84, 4.454], 2
3.101, ['in parte'], [3.101, 3.98, 5.734], 3
3.102, ['dicitur esse'], [3.102, 6.1012], 2
3.103, ['pars ulla'], [3.103, 3.399], 2
3.104, ['sic animi'], [3.104, 3.329, 3.448], 3
3.104, ['non certa'], [3.104, 3.618], 2
3.105, ['opere in'], [3.105, 5.1360, 6.815], 3
3.107, ['ex alia'], [3.107, 4.821, 5.712], 3
3.108, ['fit ubi'], [3.108, 4.916], 2
3.109, ['corpore toto;'], [3.109, 4.1111], 2
3.110, ['alio pacto'], [3.110, 5.1070], 2
3.113, ['sensu corpus'], [3.113, 3.686], 2
3.114, ['in illo'], [3.114, 6.905], 2
3.114, ['nobis quod'], [3.114, 5.151], 2
3.117, ['in membris'], [3.117, 3.120, 3.127, 4.651], 4
3.117, ['quoque ut'], [3.117, 5.637, 6.261], 3
3.117, ['animam quoque'], [3.117, 3.437], 2
3.118, ['corpus sentire'], [3.118, 3.354], 2
3.119, ['principio fit'], [3.119, 6.942], 2
3.120, ['tamen nobis'], [3.120, 4.455], 2
3.120, ['vita moretur.'], [3.120, 3.127], 2
3.122, ['per os'], [3.122, 4.864], 2
3.123, ['atque ossa'], [3.123, 3.567], 2
3.124, ['non aequas'], [3.124, 5.684], 2
3.128, ['calor ac ventus'], [3.128, 3.286], 2
3.129, ['moribundos deserit'], [3.129, 3.232], 2
3.130, ['animi natura reperta'], [3.130, 3.203, 5.59], 3
3.130, ['quoniam est'], [3.130, 4.97], 2
3.131, ['atque animae quasi'], [3.131, 3.280], 2

3.133, ['sive aliunde'], [3.133, 5.522], 2
3.134, ['quae tum res'], [3.134, 6.313], 2
3.135, ['percipe dicta.'], [3.135, 4.880], 2
3.136, ['atque animam'], [3.136, 3.351, 3.422, 6.798], 4
3.137, ['ex se,'], [3.137, 3.705, 3.719], 3
3.137, ['se atque'], [3.137, 4.809, 5.1120], 3
3.137, ['unam naturam'], [3.137, 3.270], 2
3.138, ['in corpore toto'], [3.138, 4.887], 2
3.138, ['caput esse'], [3.138, 6.262], 2
3.138, ['esse quasi'], [3.138, 4.812], 2
3.139, ['quod nos'], [3.139, 4.369, 6.1137, 6.187, 6.975], 5
3.141, ['haec loca'], [3.141, 4.580, 4.597], 3
3.143, ['per totum'], [3.143, 4.202, 6.250, 6.885], 4
3.143, ['cetera pars'], [3.143, 3.150], 2
3.148, ['in nobis,'], [3.148, 4.921, 5.1425], 3
3.148, ['non omni'], [3.148, 3.978], 2
3.149, ['corpore, sic'], [3.149, 3.448], 2
3.149, ['sic animus'], [3.149, 3.554], 2
3.151, ['per membra atque artus'], [3.151, 4.1042, 4.888], 3
3.152, ['verum ubi'], [3.152, 4.741, 6.100], 3
3.153, ['membra videmus'], [3.153, 4.732, 5.240], 3
3.153, ['animam totam'], [3.153, 3.216], 2
3.155, ['corpore et'], [3.155, 3.177, 3.554, 3.883, 6.1035], 5
3.159, ['esse animam'], [3.159, 3.543], 2
3.161, ['Haec eadem ratio', 'Haec ratio quondam'], [3.161, 6.1138], 2
3.161, ['animi atque animai'], [3.161, 3.499], 2
3.161, ['naturam animi'], [3.161, 3.175], 2
3.163, ['ex somno'], [3.163, 3.926, 4.1022], 3
3.164, ['atque hominem'], [3.164, 3.211], 2
3.164, ['hominem totum'], [3.164, 3.546], 2
3.165, ['fieri sine'], [3.165, 3.347], 2
3.168, ['cum corpore et una'], [3.168, 3.445, 3.683], 3
3.170, ['vitam vis'], [3.170, 6.1224], 2
3.174, ['inter dumque'], [3.174, 3.465], 2
3.178, ['rationem reddere dictis.'], [3.178, 4.175], 2
3.179, ['atque minutis'], [3.179, 4.183], 2
3.181, ['hinc licet advertas'], [3.181, 3.45], 2
3.181, ['advertas animum,'], [3.181, 4.812], 2
3.182, ['fieri celeri ratione'], [3.182, 4.773], 2
3.184, ['quam res'], [3.184, 4.467, 4.690, 5.108, 5.97], 5
3.184, ['ergo animus'], [3.184, 3.521, 4.886], 3
3.186, ['at quod'], [3.186, 3.640], 2
3.186, ['tanto operest,'], [3.186, 3.934], 2
3.194, ['ni mirum quia non'], [3.194, 5.1432], 2
3.195, ['atque rutundis.'], [3.195, 3.205], 2
3.195, ['corporibus neque'], [3.195, 5.896], 2
3.201, ['magis cum'], [3.201, 3.701], 2
3.201, ['pondere magno'], [3.201, 4.905], 2
3.203, ['nunc igitur'], [3.203, 3.434, 4.234, 5.273], 4
3.209, ['quam tenui'], [3.209, 4.110], 2

3.211, ['quod simul atque'], [3.211, 4.1041], 2
3.212, ['animi natura animaeque'], [3.212, 3.845], 2
3.212, ['atque animi natura'], [3.212, 4.40], 2
3.213, ['toto corpore'], [3.213, 3.227, 6.944], 3
3.214, ['ad speciem,'], [3.214, 5.707], 2
3.214, ['nihil ad'], [3.214, 5.569], 2
3.217, ['per venas viscera'], [3.217, 3.692], 2
3.218, ['e toto'], [3.218, 6.944], 2
3.218, ['ubi e'], [3.218, 6.833], 2
3.219, ['extima membrorum circumcaesura'], [3.219, 4.647], 2
3.221, ['aut cum'], [3.221, 4.1135, 5.1071], 3
3.221, ['quod genus est,'], [3.221, 3.597], 2
3.223, ['cum iam'], [3.223, 4.975, 5.214, 6.827], 4
3.224, ['ipsa videtur'], [3.224, 5.1030], 2
3.227, ['corpore rerum.'], [3.227, 4.64], 2
3.229, ['scire licet perquam'], [3.229, 5.594], 2
3.231, ['nobis natura'], [3.231, 3.975], 2
3.232, ['tenvis enim'], [3.232, 4.748, 5.148], 3
3.234, ['cui non'], [3.234, 5.1218, 5.1219], 3
3.234, ['non sit'], [3.234, 3.890, 5.192], 3
3.238, ['ad sensum'], [3.238, 4.668, 4.704], 3
3.239, ['nil horum'], [3.239, 5.871], 2
3.240, ['sensiferos motus,'], [3.240, 3.570], 2
3.241, ['his igitur'], [3.241, 5.1172], 2
3.241, ['igitur quaedam'], [3.241, 4.652], 2
3.244, ['e parvis et levibus'], [3.244, 6.330], 2
3.244, ['et levibus ex'], [3.244, 6.354], 2
3.244, ['nec magis'], [3.244, 3.274], 2
3.245, ['per artus.'], [3.245, 3.711, 5.898, 6.945], 4
3.245, ['sensiferos motus'], [3.245, 3.379], 2
3.247, ['et venti caeca potestas'], [3.247, 3.269], 2
3.248, ['inde aër, inde'], [3.248, 5.498], 2
3.251, ['voluptas est'], [3.251, 4.627], 2
3.252, ['nec temere'], [3.252, 6.319], 2
3.255, ['per caulas corporis omnis.'], [3.255, 3.703, 6.839], 3
3.256, ['in summo'], [3.256, 4.442, 6.1164, 6.701], 4
3.256, ['fit in'], [3.256, 6.143, 6.965], 3
3.257, ['hanc ob rem'], [3.257, 5.1150, 6.334, 6.572, 6.873], 5
3.258, ['Nunc ea quo pacto inter sese mixta', 'Nunc ea quo pacto gignantur et impete'], [3.258, 6.239], 2
3.262, ['inter enim'], [3.262, 3.860, 4.948, 6.332], 4
3.263, ['inter se,'], [3.263, 6.1086], 2
3.266, ['quod genus in'], [3.266, 3.276, 3.431, 5.478], 4
3.268, ['omnibus est'], [3.268, 6.1036, 6.684], 3
3.268, ['est unum'], [3.268, 3.424], 2
3.269, ['atque aër'], [3.269, 6.1120], 2
3.269, ['calor atque'], [3.269, 5.806], 2
3.271, ['motus ab'], [3.271, 3.861], 2
3.271, ['se quae'], [3.271, 3.781], 2
3.273, ['nam penitus'], [3.273, 4.695, 6.1141], 3

3.274, ['corpore nostro'], [3.274, 4.547, 4.875], 3
3.276, ['corpore toto'], [3.276, 3.329, 3.351, 5.273], 4
3.276, ['membris et corpore'], [3.276, 5.789], 2
3.277, ['vis est'], [3.277, 5.1286, 6.354], 3
3.277, ['animaeque potestas,'], [3.277, 3.845], 2
3.278, ['quia de'], [3.278, 4.338], 2
3.281, ['corpore toto.'], [3.281, 3.800, 4.1104, 6.1008], 4
3.281, ['anima et'], [3.281, 4.930], 2
3.281, ['dominatur corpore'], [3.281, 3.710], 2
3.282, ['et aër'], [3.282, 4.277, 6.1035], 3
3.282, ['ratione necessest'], [3.282, 4.163, 4.191], 3
3.282, ['ventus et'], [3.282, 6.684], 2
3.283, ['et calor'], [3.283, 6.371], 2
3.284, ['atque aliis aliud'], [3.284, 6.995], 2
3.285, ['ab omnibus'], [3.285, 5.300], 2
3.285, ['videatur ab'], [3.285, 3.644], 2
3.288, ['est etiam'], [3.288, 3.292, 5.715, 6.786, 6.879], 5
3.289, ['et ex'], [3.289, 3.966, 4.1022, 5.835], 4
3.290, ['est et'], [3.290, 4.748, 5.1061, 6.354, 6.632, 6.749], 6
3.291, ['membris et'], [3.291, 4.651], 2
3.296, ['quo genere in primis'], [3.296, 4.855, 5.59], 3
3.296, ['genere in primis sensus et membra videmus;', 'genere in primis vis est violenta leonum,'], [3.296, 4.855], 2
3.299, ['mens est'], [3.299, 4.748], 2
3.310, ['nec radicitus'], [3.310, 3.878], 2
3.314, ['differre necessest'], [3.314, 4.649], 2
3.314, ['inque aliis'], [3.314, 6.1247], 2
3.319, ['illud in his rebus'], [3.319, 3.901], 2
3.321, ['parvola, quae'], [3.321, 6.305], 2
3.322, ['degere vitam.'], [3.322, 4.1282], 2
3.323, ['Haec igitur natura', 'Hasce igitur penitus'], [3.323, 4.547], 2
3.323, ['corpore ab omni'], [3.323, 3.567], 2
3.324, ['et causa'], [3.324, 5.775], 2
3.325, ['nam communibus inter se radicibus haerent'], [3.325, 5.554], 2
3.326, ['sine pernicie'], [3.326, 3.412], 2
3.328, ['facile est, quin'], [3.328, 3.330], 2
3.329, ['atque animae'], [3.329, 3.36, 3.531, 3.847, 6.578], 5
3.329, ['animae naturam'], [3.329, 3.589], 2
3.331, ['ab origine'], [3.331, 5.548, 5.678], 3
3.337, ['se nec'], [3.337, 5.1020], 2
3.339, ['umor aquae'], [3.339, 6.968], 2
3.341, ['non, inquam,'], [3.341, 5.620], 2
3.344, ['corporis atque animai'], [3.344, 3.839], 2
3.348, ['quoniam coniunctast causa'], [3.348, 3.579], 2
3.349, ['consistere eorum.'], [3.349, 4.101], 2
3.355, ['si non ipsa'], [3.355, 5.186], 2
3.355, ['quod res'], [3.355, 3.47], 2
3.356, ["at dimissa', "at nimis'], [3.356, 6.673], 2
3.356, ['anima corpus'], [3.356, 3.562], 2
3.357, ['eius in'], [3.357, 5.686], 2

3.359, ['Dicere porro oculos', 'Dicere porro hominum'], [3.359, 5.156], 2
3.365, ['neque enim,'], [3.365, 3.732, 5.377], 3
3.365, ['fit; neque'], [3.365, 4.883], 2
3.367, ['praeterea si'], [3.367, 5.1046, 6.406], 3
3.368, ['debere videtur'], [3.368, 5.170], 2
3.370, ['Illud in his rebus nequaquam sumere', 'Illud in his rebus minime mirabile', 'Illud in his rebus vitium vehementer', 'Illud in his rebus ne corripuisse'], [3.370, 4.256, 4.822, 5.247], 4
3.371, ['Democriti quod sancta viri sententia ponit,'], [3.371, 5.622], 2
3.375, ['quibus e'], [3.375, 3.840, 3.866, 5.566, 5.949], 5
3.375, ['et viscera'], [3.375, 3.566], 2
3.375, ['quam quibus'], [3.375, 4.815], 2
3.380, ['exordia prima'], [3.380, 5.677], 2
3.390, ['in nostro'], [3.390, 3.710, 4.263], 3
3.390, ['corpore quae'], [3.390, 6.76], 2
3.391, ['prius est'], [3.391, 5.1250, 5.1297], 3
3.393, ['per artus,'], [3.393, 3.759, 6.661], 3
3.393, ['corporibus nostris'], [3.393, 3.690], 2
3.394, ['quam in'], [3.394, 3.917], 2
3.397, ['et dominantior'], [3.397, 6.238], 2
3.397, ['vitam quam'], [3.397, 3.42], 2
3.400, ['discedit in'], [3.400, 3.436, 3.640, 4.870], 4
3.400, ['facile et'], [3.400, 4.377, 5.1114], 3
3.402, ['manet in'], [3.402, 4.388], 2
3.403, ['quamvis est'], [3.403, 4.426], 2
3.406, ['parte animai'], [3.406, 4.959], 2
3.410, ['dum modo'], [3.410, 4.631], 2
3.412, ['id quoque enim'], [3.412, 6.113, 6.670], 3
3.413, ['at si'], [3.413, 4.557], 2
3.416, ['anima atque'], [3.416, 3.574], 2
3.418, ['noscere possis,'], [3.418, 4.811], 2
3.421, ['tu fac'], [3.421, 4.931], 2
3.423, ['mortalem esse'], [3.423, 3.768, 3.885], 3
3.423, ['animum quoque'], [3.423, 3.470], 2
3.426, ['multoque minoribus'], [3.426, 5.456], 2
3.431, ['in somnis'], [3.431, 4.1012, 4.1097, 4.770, 4.789, 4.972, 4.988, 5.1181, 5.62, 5.885], 10
3.433, ['nobis simulacra'], [3.433, 4.154, 4.337], 3
3.433, ['procul haec'], [3.433, 6.719], 2
3.435, ['umorem et'], [3.435, 6.858], 2
3.436, ['in auras,'], [3.436, 6.819, 6.886], 3
3.436, ['nebula ac'], [3.436, 6.1121], 2
3.438, ['et citius'], [3.438, 5.702, 6.338], 3
3.439, ['ex hominis'], [3.439, 4.1094], 2
3.439, ['membris ablata'], [3.439, 3.718], 2
3.440, ['corpus, quod'], [3.440, 5.757], 2
3.440, ['quod vas'], [3.440, 3.555], 2
3.445, ['pariter cum corpore'], [3.445, 3.770], 2
3.445, ['gigni pariter'], [3.445, 3.457], 2
3.447, ['vel ut'], [3.447, 3.549, 3.685, 6.195, 6.478], 5

3.449, ['inde ubi'], [3.449, 3.502, 5.413, 6.1151, 6.281, 6.327, 6.869], 7
3.451, ['post ubi'], [3.451, 5.886, 6.128], 3
3.451, ['ubi iam'], [3.451, 3.502, 3.598], 3
3.454, ['atque uno'], [3.454, 5.1346, 5.506], 3
3.455, ['dissolui quoque'], [3.455, 3.759], 2
3.455, ['quoque convenit'], [3.455, 3.462], 2
3.456, ['aëris auras;'], [3.456, 4.693], 2
3.459, ['corpus ut'], [3.459, 4.897, 6.705], 3
3.465, ['in altum'], [3.465, 5.1434], 2
3.468, ['potis est,'], [3.468, 4.611], 2
3.471, ['in eum'], [3.471, 4.284, 6.345], 3
3.474, ['quoniam mentem sanari corpus ut aegrum'], [3.474, 3.510], 2
3.475, ['et pariter'], [3.475, 5.674], 2
3.477, ['in venas'], [3.477, 4.955, 6.946], 3
3.481, ['et iam cetera de genere hoc cur omnia membris', 'et iam cetera de genere hoc quae cumque secuntur,'], [3.481, 3.745], 2
3.482, ['nisi quod'], [3.482, 4.756, 4.758, 5.349], 4
3.482, ['sunt, nisi'], [3.482, 4.802], 2
3.483, ['corpore in'], [3.483, 3.506, 3.508, 3.715], 4
3.484, ['at quae cumque'], [3.484, 5.543], 2
3.486, ['fore ut'], [3.486, 3.872], 2
3.489, ['et spumas'], [3.489, 6.793], 2
3.492, ['distracta per artus'], [3.492, 4.916, 4.946], 3
3.492, ['quia vis'], [3.492, 3.499, 4.301], 3
3.496, ['omnino quod'], [3.496, 5.1177], 2
3.496, ['quod semina'], [3.496, 4.305], 2
3.497, ['ore foras'], [3.497, 5.906, 6.1154], 3
3.498, ['et sunt'], [3.498, 6.82], 2
3.504, ['tum quasi'], [3.504, 6.282], 2
3.509, ['cum validis'], [3.509, 5.1228], 2
3.510, ['Et quoniam mens est', 'Et quoniam toto sentimus', 'Et quoniam mentem sanari'], [3.510, 3.548, 3.634], 3
3.511, ['cernimus et'], [3.511, 4.134], 2
3.512, ['id quoque'], [3.512, 3.851, 4.1264, 4.469], 4
3.514, ['aut aliquid'], [3.514, 6.1136], 2
3.516, ['aut aliam quamvis'], [3.516, 5.369], 2
3.528, ['in pedibus'], [3.528, 4.1125, 5.542], 3
3.531, ['haec quoniam'], [3.531, 4.730], 2
3.531, ['quoniam natura'], [3.531, 5.846], 2
3.533, ['quod si forte putas'], [3.533, 3.699], 2
3.536, ['copia tanta'], [3.536, 3.721, 4.774], 3
3.538, ['ni mirum,'], [3.538, 4.370], 2
3.544, ['nec refert utrum'], [3.544, 6.1133], 2
3.546, ['magis ac magis undique'], [3.546, 6.126], 2
3.547, ['et vitae'], [3.547, 3.682], 2
3.550, ['alii sensus'], [3.550, 4.522], 2
3.552, ['sentire neque'], [3.552, 3.633, 4.560], 3
3.552, ['ab nobis'], [3.552, 4.244], 2
3.552, ['neque esse,'], [3.552, 5.891], 2
3.553, ['in parvo'], [3.553, 5.106], 2

3.554, ['non quit'], [3.554, 3.646, 4.1166, 5.152, 6.555], 5
3.554, ['animus per se'], [3.554, 3.565], 2
3.555, ['quasi quod'], [3.555, 4.950], 2
3.558, ['animi vivata potestas'], [3.558, 3.681], 2
3.562, ['corpus durare'], [3.562, 3.798], 2
3.564, ['corpore toto,'], [3.564, 3.608, 4.1021, 4.1042], 4
3.565, ['sic anima atque animus'], [3.565, 3.706], 2
3.568, ['magnis intervallis'], [3.568, 5.568], 2
3.568, ['nec magnis'], [3.568, 5.819], 2
3.570, ['corpus in'], [3.570, 6.1173], 2
3.572, ['quia non'], [3.572, 4.1081, 4.1242], 3
3.575, ['quos ante'], [3.575, 5.1334], 2
3.579, ['animam, quoniam'], [3.579, 3.768], 2
3.590, ['et prius'], [3.590, 5.1297], 2
3.590, ['prius esse'], [3.590, 6.980], 2
3.591, ['in aëris'], [3.591, 4.693], 2
3.593, ['e causa'], [3.593, 5.1252], 2
3.593, ['tamen e'], [3.593, 5.1125], 2
3.598, ['et omnes'], [3.598, 4.666, 5.923], 3
3.600, ['enim tum'], [3.600, 4.919, 5.1398, 5.990], 4
3.601, ['cum corpore'], [3.601, 3.639, 3.701, 3.748, 3.760, 4.1193, 4.27, 4.547, 4.84, 5.904, 6.1268, 6.439], 12
3.604, ['foras in'], [3.604, 6.817], 2
3.605, ['durare per'], [3.605, 5.61], 2
3.605, ['non modo'], [3.605, 4.507], 2
3.605, ['possit durare'], [3.605, 3.619], 2
3.607, ['nec sibi enim quisquam'], [3.607, 3.920], 2
3.608, ['ire foras'], [3.608, 3.614, 4.531], 3
3.609, ['et supera'], [3.609, 5.1407], 2
3.609, ['prius ad'], [3.609, 4.668], 2
3.612, ['quod si inmortalis'], [3.612, 3.749], 2
3.616, ['aut pedibus'], [3.616, 5.1331], 2
3.624, ['Praeterea si inmortalis natura'], [3.624, 3.670], 2
3.628, ['animas Acherunte'], [3.628, 4.37], 2
3.629, ['itaque et'], [3.629, 4.705], 2
3.631, ['neque sorsum'], [3.631, 3.632], 2
3.632, ['esse potest'], [3.632, 3.928], 2
3.633, ['se possunt'], [3.633, 5.922], 2
3.635, ['et totum'], [3.635, 4.1025], 2
3.639, ['simul cum'], [3.639, 3.667, 6.276], 3
3.643, ['permixta caede'], [3.643, 5.1313], 2
3.645, ['atque hominis'], [3.645, 4.741], 2
3.645, ['tamen atque'], [3.645, 4.1285], 2
3.647, ['et simul in'], [3.647, 5.1181, 6.411], 3
3.659, ['in multas partis'], [3.659, 6.411], 2
3.660, ['omnia iam'], [3.660, 5.278, 6.10], 3
3.661, ['et terram'], [3.661, 5.1254, 5.1325, 5.209], 4
3.665, ['ea ratione'], [3.665, 4.964], 2
3.667, ['quae fuit'], [3.667, 3.678, 4.373, 4.382, 4.819], 5
3.669, ['in multas'], [3.669, 4.565, 4.605], 3

3.673, ['et quae nunc est nunc esse'], [3.673, 3.679], 2
3.673, ['[interisse et', '[est] integra'], [3.673, 3.706], 2
3.677, ['id ab'], [3.677, 6.740], 2
3.684, ['cum membris'], [3.684, 4.1105], 2
3.684, ['videatur in'], [3.684, 6.291], 2
3.687, ['esse putandumst'], [3.687, 3.803, 4.922, 6.262], 4
3.691, ['quod fieri'], [3.691, 4.1088], 2
3.700, ['nobis per membra'], [3.700, 4.942], 2
3.701, ['tanto quique magis'], [3.701, 5.343], 2
3.701, ['corpore fusa'], [3.701, 4.53], 2
3.702, ['enim, dissolvitur, interit ergo;'], [3.702, 3.757], 2
3.704, ['cibus, in'], [3.704, 4.955], 2
3.704, ['diditur omnis,'], [3.704, 4.955], 2
3.705, ['atque aliam naturam'], [3.705, 5.536], 2
3.708, ['quasi per'], [3.708, 6.181, 6.493], 3
3.709, ['haec animi'], [3.709, 6.78], 2
3.710, ['quae nunc in'], [3.710, 5.1164], 2
3.711, ['ex illa quae'], [3.711, 6.313], 2
3.719, ['partis in'], [3.719, 4.603], 2
3.721, ['atque unde'], [3.721, 5.1153], 2
3.723, ['forte animas'], [3.723, 4.37], 2
3.726, ['hoc tamen'], [3.726, 4.635], 2
3.726, ['unde una'], [3.726, 6.704], 2
3.732, ['corpore cum'], [3.732, 6.1075], 2
3.734, ['enim magis'], [3.734, 5.455], 2
3.736, ['tamen his'], [3.736, 5.16], 2
3.737, ['qua possint'], [3.737, 4.977, 5.852], 3
3.739, ['nec tamen est ut'], [3.739, 5.366], 2
3.743, ['et fuga'], [3.743, 5.863], 2
3.747, ['non, certa suo quia semine'], [3.747, 3.764], 2
3.751, ['de semine'], [3.751, 4.1227, 4.1229], 3
3.754, ['saecla ferarum.'], [3.754, 4.686, 5.947, 6.766], 4
3.758, ['atque ordine'], [3.758, 5.1439], 2
3.759, ['quoque debent'], [3.759, 4.85], 2
3.765, ['fortis equi'], [3.765, 3.8], 2
3.766, ['scilicet in'], [3.766, 6.837], 2
3.771, ['cupitum aetatis tangere florem'], [3.771, 5.847], 2
3.781, ['quae prima'], [3.781, 3.783], 2
3.782, ['forte ita'], [3.782, 6.672, 6.745], 3
3.783, ['ut quae'], [3.783, 6.343], 2
3.785, ['in aethere non arbor, non aequore in alto'], [3.785, 5.128], 2
3.786, ['pisces vivere in arvis'], [3.786, 5.129], 2
3.786, ['nubes esse queunt'], [3.786, 5.129], 2
3.787, ['nec cruor in lignis neque saxis sucus'], [3.787, 5.130], 2
3.788, ['certum ac dispositumst ubi quicquid crescat et'], [3.788, 5.131], 2
3.789, ['sic animi natura nequit sine corpore oriri'], [3.789, 5.132], 2
3.790, ['sola neque a nervis et sanguine longius esse.'], [3.790, 5.133], 2
3.791, ['quod si posset enim, multo prius ipsa animi vis'], [3.791, 5.134], 2
3.792, ['in capite aut umeris aut imis calcibus esse'], [3.792, 5.135], 2
3.793, ['posset et innasci quavis in parte soleret,'], [3.793, 5.136], 2

3.794, ['tandem in eodem homine atque in eodem vase manere.'], [3.794, 5.137], 2
3.795, ['quod quoniam nostro quoque constat corpore certum'], [3.795, 5.138], 2
3.796, ['dispositumque videtur ubi esse et crescere possit'], [3.796, 5.139], 2
3.797, ['anima atque animus, tanto magis infitiandum'], [3.797, 5.140], 2
3.798, ['totum posse extra corpus'], [3.798, 5.141], 2
3.804, ['magis inter se'], [3.804, 5.452], 2
3.807, ['manent aeterna necessest'], [3.807, 5.351], 2
3.807, ['praeterea quaecumque'], [3.807, 4.123], 2
3.808, ['quia sunt solido cum'], [3.808, 5.352], 2
3.808, ['aut quia sunt'], [3.808, 6.715], 2
3.808, ['solido cum corpore'], [3.808, 5.364], 2
3.808, ['respuere ictus'], [3.808, 5.352], 2
3.809, ['nec penetrare pati sibi quicquam quod queat artas'], [3.809, 5.353], 2
3.810, ['dissociare intus partis, ut materiai'], [3.810, 5.354], 2
3.811, ['corpora sunt, quorum naturam ostendimus ante,'], [3.811, 5.355], 2
3.812, ['aut ideo durare aetatem posse per omnem,'], [3.812, 5.356], 2
3.813, ['plagarum quia sunt'], [3.813, 5.357], 2
3.814, ['quod manet intactum neque ab ictu fungitur hilum,'], [3.814, 5.358], 2
3.815, ['aut etiam quia nulla loci sit copia circum,'], [3.815, 5.359], 2
3.816, ['quo quasi res possint discedere dissoluique,'], [3.816, 5.360], 2
3.817, ['sicut summarum summast aeterna, neque extra'], [3.817, 5.361], 2
3.818, ['quis locus est quo dissiliant neque corpora sunt quae', 'quis locus est quo diffugiant neque corpora sunt quae'], [3.818, 5.362], 2
3.819, ['possint incidere et valida dissolvere plaga.'], [3.819, 5.363], 2
3.820, ['Quod si forte ideo magis', 'Quod si forte fuisse ante'], [3.820, 5.338], 2
3.821, ['ab rebus'], [3.821, 4.130, 4.144, 4.163, 4.347, 4.43, 4.64, 4.737], 8
3.822, ['aut quia non'], [3.822, 4.719], 2
3.823, ['quae veniunt'], [3.823, 4.723], 2
3.823, ['quia quae'], [3.823, 5.920], 2
3.825, ['cum corporis'], [3.825, 3.839], 2
3.825, ['quod morbis'], [3.825, 5.349], 2
3.826, ['quod eam'], [3.826, 4.96], 2
3.830, ['adde quod'], [3.830, 4.1122], 2
3.831, ['ad nos'], [3.831, 3.851, 3.927, 4.339], 4
3.831, ['est ad'], [3.831, 3.846], 2
3.833, ['ut ante'], [3.833, 5.1341, 6.176], 3
3.836, ['altis aetheris'], [3.836, 5.143], 2
3.841, ['qui non'], [3.841, 3.868, 3.890, 3.989, 6.1075, 6.675], 6
3.843, ['non si'], [3.843, 6.1076], 2
3.846, ['nil tamen est'], [3.846, 5.918], 2
3.847, ['corporis atque'], [3.847, 4.944], 2
3.853, ['nil ad nos'], [3.853, 3.973], 2
3.854, ['nos adficit'], [3.854, 3.923], 2
3.859, ['tamen id'], [3.859, 5.1157, 5.206], 3
3.860, ['vitai pausa'], [3.860, 3.931], 2
3.863, ['in eo tum'], [3.863, 6.429], 2
3.871, ['ubi se'], [3.871, 4.1115, 4.279, 5.1158, 6.1119, 6.1231, 6.446], 7
3.879, ['esse sui'], [3.879, 6.542], 2
3.880, ['sibi cum'], [3.880, 5.1142], 2
3.882, ['enim se'], [3.882, 5.1148], 2

3.882, ['se dividit'], [3.882, 4.566], 2
3.885, ['esse creatum'], [3.885, 4.698], 2
3.892, ['aut in'], [3.892, 4.148, 5.143, 6.1126, 6.746, 6.897], 6
3.900, ['una dies'], [3.900, 5.1000, 5.95], 3
3.903, ['quod bene'], [3.903, 6.653], 2
3.905, ['quidem ut'], [3.905, 6.80], 2
3.907, ['at nos'], [3.907, 5.1427], 2
3.909, ['e pectore'], [3.909, 4.908], 2
3.910, ['hoc igitur'], [3.910, 3.975, 6.905], 3
3.911, ['si res'], [3.911, 4.778], 2
3.914, ['homines et'], [3.914, 6.12], 2
3.920, ['tum se'], [3.920, 4.957, 5.467], 3
3.921, ['et corpus'], [3.921, 4.930, 4.998], 3
3.922, ['nam licet'], [3.922, 5.597], 2
3.924, ['haud quaquam'], [3.924, 4.523], 2
3.924, ['tamen haud'], [3.924, 4.689], 2
3.927, ['minus ad'], [3.927, 5.1232], 2
3.933, ['et hoc'], [3.933, 4.146], 2
3.934, ['quod nimis'], [3.934, 6.853], 2
3.937, ['et non'], [3.937, 4.1190], 2
3.937, ['quasi in'], [3.937, 4.376], 2
3.946, ['est; eadem'], [3.946, 4.381], 2
3.947, ['et artus'], [3.947, 6.1206], 2
3.950, ['atque etiam'], [3.950, 6.1213], 2
3.958, ['quia semper'], [3.958, 5.1175, 6.165], 3
3.960, ['ad caput'], [3.960, 6.729], 2
3.960, ['et nec'], [3.960, 5.1320], 2
3.968, ['opus est,'], [3.968, 5.232], 2
3.979, ['Atque ea ni', 'Atque in amore'], [3.979, 4.1141], 2
3.983, ['magis in'], [3.983, 5.1370, 6.1089], 3
3.983, ['divom metus'], [3.983, 5.73], 2
3.993, ['in amore'], [3.993, 4.1101], 2
3.994, ['anxius angor'], [3.994, 6.1158], 2
3.995, ['aut alia quavis'], [3.995, 5.372], 2
3.997, ['saevasque secures'], [3.997, 5.1234], 2
3.1000, ['atque in eo'], [3.1000, 4.1260], 2
3.1009, ['id est,'], [3.1009, 5.1252, 5.577], 3
3.1009, ['ut opinor, id'], [3.1009, 3.677], 2
3.1012, ['Ceres fertur', 'Cerberus et'], [3.1012, 5.14], 2
3.1012, ['vero et'], [3.1012, 6.971], 2
3.1014, ['nec possunt'], [3.1014, 4.385, 4.764], 3
3.1015, ['in vita'], [3.1015, 3.402, 3.407, 3.980, 3.983, 3.996, 5.227, 6.1211], 8
3.1021, ['nec videt'], [3.1021, 3.886], 2
3.1022, ['possit nec'], [3.1022, 3.264], 2
3.1023, ['magis haec'], [3.1023, 4.1225, 4.728, 4.82, 5.1404, 5.455], 6
3.1023, ['haec ne'], [3.1023, 5.305], 2
3.1025, ['Hoc etiam tibi tute', 'Hoc etiam super est,'], [3.1025, 6.979], 2
3.1027, ['quam tu'], [3.1027, 3.970], 2
3.1030, ['per mare'], [3.1030, 5.1226, 6.256, 6.589], 4
3.1030, ['qui quondam'], [3.1030, 6.6], 2

3.1032, ['ac pedibus'], [3.1032, 5.1037], 2
3.1036, ['proinde ac'], [3.1036, 3.1054, 4.657], 3
3.1040, ['post quam'], [3.1040, 5.1285], 2
3.1044, ['superavit et'], [3.1044, 5.396], 2
3.1050, ['cassa formidine'], [3.1050, 3.982], 2
3.1051, ['nec reperire'], [3.1051, 3.317, 4.1119, 5.848], 4
3.1051, ['sit saepe'], [3.1051, 3.108], 2
3.1056, ['e quibus id fiat causis quoque noscere et unde', 'et tamen ipsa quoque haec, dum transit clausa <domorum>', 'e quibus una tamen sit et haec quoque causa'], [3.1056, 4.612, 5.531], 3
3.1058, ['ut nunc'], [3.1058, 3.858, 5.1339, 5.1376, 5.803, 5.946], 6
3.1059, ['sibi quisque'], [3.1059, 5.961], 2
3.1061, ['ex aedibus'], [3.1061, 4.273], 2
3.1062, ['esse domi'], [3.1062, 6.14], 2
3.1067, ['atque oblivia'], [3.1067, 3.829, 4.826], 3
3.1068, ['petit atque'], [3.1068, 5.1035], 2
3.1069, ['se quisque'], [3.1069, 5.1148, 6.1231], 3
3.1072, ['bene si videat, iam rebus quisque', 'bene si videant animo dictisque sequantur,'], [3.1072, 3.903], 2
3.1074, ['temporis aeterni'], [3.1074, 3.974], 2
3.1075, ['quo sit'], [3.1075, 6.609], 2
3.1076, ['post mortem'], [3.1076, 3.338, 3.571, 3.872, 3.976, 4.39], 6
3.1076, ['mortem quae'], [3.1076, 6.772], 2
3.1077, ['Denique tantopere inter se cum', 'Denique tanto opere in dubiis'], [3.1077, 5.380], 2
3.1082, ['nec nova'], [3.1082, 5.935], 2
3.1083, ['abest quod'], [3.1083, 4.1061], 2
3.1092, ['minus illa'], [3.1092, 5.648], 2
3.1092, ['nihilo minus'], [3.1092, 3.96], 2
3.1093, ['iam non'], [3.1093, 3.895], 2
4.27, ['et quibus e'], [4.27, 6.32, 6.761], 3
4.29, ['quod vehementer ad has res'], [4.29, 4.49], 2
4.29, ['agere incipiam'], [4.29, 4.49], 2
4.30, ['attinet esse ea quae rerum simulacra vocamus,'], [4.30, 4.50], 2
4.31, ['quae quasi membranae'], [4.31, 4.51], 2
4.31, ['summo de corpore'], [4.31, 4.64], 2
4.32, ['per auras,'], [4.32, 5.760, 6.190, 6.303], 4
4.40, ['cum corpus'], [4.40, 4.939], 2
4.44, ['id licet hinc quamvis hebeti cognoscere corde.'], [4.44, 5.882], 2
4.57, ['et partim'], [4.57, 4.918, 5.1083, 5.952], 4
4.65, ['nam cur'], [4.65, 5.1043, 5.753], 3
4.66, ['tenvia sunt,'], [4.66, 4.802], 2
4.71, ['prima fronte locata.'], [4.71, 4.97], 2
4.76, ['magnis intenta theatris'], [4.76, 6.109], 2
4.81, ['quanto circum'], [4.81, 5.483], 2
4.93, ['per iter'], [4.93, 5.1130, 5.404], 3
4.102, ['cur illa cadant magis ab rebusque recedant'], [4.102, 4.65], 2
4.103, ['sunt, hiscendist nulla'], [4.103, 4.66], 2
4.105, ['cernere nemo'], [4.105, 4.610], 2
4.107, ['reddunt speculorum ex aequore visum,'], [4.107, 4.290], 2

4.111, ['percipe. et in'], [4.111, 6.536], 2
4.115, ['quam sint subtilia'], [4.115, 4.122], 2
4.115, ['percipe paucis.'], [4.115, 4.723], 2
4.127, ['rerum simulacra vagari'], [4.127, 4.724], 2
4.130, ['quae cumque ab'], [4.130, 4.521], 2
4.131, ['sunt etiam'], [4.131, 6.142], 2
4.132, ['in hoc'], [4.132, 5.526, 5.909], 3
4.133, ['facile inter'], [4.133, 4.726], 2
4.133, ['in alto'], [4.133, 5.465], 2
4.133, ['ut nubes'], [4.133, 6.1099], 2
4.139, ['et solem'], [4.139, 5.115], 2
4.142, ['cuiusque modi'], [4.142, 6.770], 2
4.143, ['celeri ratione'], [4.143, 4.254], 2
4.143, ['et celeri'], [4.143, 6.324], 2
4.146, ['hoc alias'], [4.146, 6.1057], 2
4.147, ['ut in primis'], [4.147, 4.151], 2
4.148, ['ibi iam'], [4.148, 4.666], 2
4.150, ['at cum'], [4.150, 6.804], 2
4.151, ['nihil accidit'], [4.151, 5.171], 2
4.152, ['neque, uti'], [4.152, 5.364], 2
4.154, ['ut hinc'], [4.154, 6.403], 2
4.155, ['quovis in tempore'], [4.155, 4.797], 2
4.157, ['corpore summo'], [4.157, 4.59], 2
4.157, ['perpetuo fluere'], [4.157, 6.922], 2
4.159, ['multa brevi spatio'], [4.159, 4.161], 2
4.164, ['temporis in'], [4.164, 4.193], 2
4.165, ['multa modis multis in cunctas undique'], [4.165, 4.725], 2
4.166, ['quo cumque'], [4.166, 5.285, 6.882], 3
4.167, ['forma atque colore.'], [4.167, 4.243], 2
4.167, ['res ibi'], [4.167, 4.243], 2
4.170, ['undique uti tenebras omnis Acherunta'], [4.170, 6.251], 2
4.171, ['liquisse et magnas caeli complesse'], [4.171, 6.252], 2
4.172, ['nimborum nocte coorta'], [4.172, 6.253], 2
4.173, ['inpendent atrae'], [4.173, 6.254], 2
4.176, ['Nunc ea quae dico rerum simulacra feruntur', 'Nunc age, quam celeri motu simulacra ferantur,'], [4.176, 4.239], 2
4.180, ['potius quam'], [4.180, 4.614, 5.108, 5.1134, 6.1286], 5
4.180, ['multis versibus'], [4.180, 4.909], 2
4.180, ['suavidicis potius'], [4.180, 4.909], 2
4.181, ['parvus ut est cycni melior canor, ille gruum quam'], [4.181, 4.910], 2
4.182, ['clamor in aetheriis dispersus nubibus austri.'], [4.182, 4.911], 2
4.183, ['res atque'], [4.183, 6.348], 2
4.184, ['licet esse'], [4.184, 5.717], 2
4.185, ['et vapor'], [4.185, 5.383], 2
4.186, ['quia sunt'], [4.186, 4.862, 6.1059, 6.741], 4
4.189, ['confestim lumine'], [4.189, 5.283], 2
4.194, ['procul a'], [4.194, 5.107, 5.491, 5.630, 6.1104], 5
4.194, ['a tergo'], [4.194, 5.1320, 6.1026], 3
4.194, ['provehat atque'], [4.194, 6.1026], 2
4.200, ['solis uti'], [4.200, 5.774], 2

4.203, ['ac terras caelumque'], [4.203, 5.92], 2
4.203, ['mare ac terras'], [4.203, 6.668], 2
4.204, ['sunt igitur iam'], [4.204, 4.87], 2
4.211, ['quod simul ac primum'], [4.211, 5.286], 2
4.213, ['in aqua'], [4.213, 4.98, 5.143, 6.883], 4
4.217, ['corpora quae feriant oculos visumque lacessant.'], [4.217, 6.923], 2
4.218, ['perpetuoque fluunt certis ab rebus'], [4.218, 6.924], 2
4.219, ['frigus ut <a> fluviis, calor a sole, aestus ab undis', 'frigus ut a fluviis, calor ab sole, aestus ab undis'], [4.219, 6.925], 2
4.220, ['aequoris, exesor'], [4.220, 6.926], 2
4.221, ['per auras.'], [4.221, 4.569, 6.115], 3
4.222, ['denique in os salsi venit umor saepe saporis,'], [4.222, 6.928], 2
4.223, ['cum mare versamur propter, dilutaque contra'], [4.223, 6.929], 2
4.224, ['cum tuimur misceri absinthia, tangit amaror.'], [4.224, 6.934], 2
4.225, ['usque adeo omnibus ab rebus res quaeque fluenter'], [4.225, 6.935], 2
4.226, ['fertur et in cunctas dimittitur undique partis'], [4.226, 6.930], 2
4.227, ['nec mora nec requies interdatur ulla fluendi,'], [4.227, 6.931], 2
4.228, ['perpetuo quoniam sentimus et omnia semper'], [4.228, 6.932], 2
4.229, ['cernere odorari licet et sentire sonare.'], [4.229, 6.933], 2
4.232, ['in luce'], [4.232, 4.312, 6.873], 3
4.236, ['ad speciem'], [4.236, 5.569, 5.724], 3
4.240, ['in cunctas'], [4.240, 4.603], 2
4.240, ['undique et'], [4.240, 5.1319], 2
4.246, ['protrudit agitque'], [4.246, 4.280], 2
4.247, ['aëra qui inter se'], [4.247, 4.281], 2
4.247, ['oculosque locatus,'], [4.247, 4.281], 2
4.248, ['nostras acies perlabitur'], [4.248, 4.357], 2
4.250, ['et quanto'], [4.250, 4.81], 2
4.251, ['propterea fit uti'], [4.251, 4.373, 4.797, 5.427, 6.876], 5
4.251, ['quam procul'], [4.251, 4.255], 2
4.252, ['et nostros oculos'], [4.252, 4.285], 2
4.252, ['oculos perterget'], [4.252, 4.277], 2
4.253, ['procul esse'], [4.253, 5.258], 2
4.254, ['scilicet haec'], [4.254, 5.875, 6.788], 3
4.254, ['ratione geruntur,'], [4.254, 6.760], 2
4.255, ['ut videamus,'], [4.255, 4.633], 2
4.259, ['ventus enim'], [4.259, 6.158, 6.685], 3
4.259, ['enim quoque'], [4.259, 6.481], 2
4.268, ['in alto.'], [4.268, 5.584], 2
4.268, ['sentimus in'], [4.268, 4.617], 2
4.271, ['quod genus'], [4.271, 5.608, 5.663, 6.1058, 6.890], 5
4.271, ['illa foris quae vere'], [4.271, 4.278], 2
4.274, ['quoque enim'], [4.274, 4.526], 2
4.280, ['ad nostras'], [4.280, 4.357], 2
4.280, ['dum venit'], [4.280, 6.302], 2
4.282, ['ut prius hunc'], [4.282, 4.287], 2
4.286, ['prae se'], [4.286, 5.1310], 2
4.287, ['facit ut'], [4.287, 5.1032, 6.343], 3
4.287, ['et facit'], [4.287, 6.962], 2
4.293, ['fit ut in'], [4.293, 4.770, 6.942], 3

4.293, ['eo quod'], [4.293, 6.1055], 2
4.296, ['quam sit'], [4.296, 5.57, 6.651, 6.767], 4
4.298, ['atque ea'], [4.298, 6.1098], 2
4.302, ['simulacra feruntur'], [4.302, 6.76], 2
4.309, ['semina multa'], [4.309, 5.660, 6.160], 3
4.310, ['multaque sunt'], [4.310, 6.863], 2
4.310, ['sunt oculis'], [4.310, 4.715], 2
4.313, ['propterea quia, cum'], [4.313, 6.462], 2
4.313, ['caliginis aër'], [4.313, 4.349], 2
4.316, ['qui quasi'], [4.316, 6.142], 2
4.319, ['simul atque'], [4.319, 4.40], 2
4.325, ['et e'], [4.325, 6.280, 6.512], 3
4.326, ['de speculo in speculum'], [4.326, 4.338], 2
4.326, ['Fit quoque de', 'Fit quoque uti'], [4.326, 6.459], 2
4.327, ['ut fieri'], [4.327, 5.979, 6.887], 3
4.328, ['nam quae cumque'], [4.328, 4.438], 2
4.331, ['in aedibus'], [4.331, 6.224], 2
4.339, ['etiam quod'], [4.339, 4.701], 2
4.350, ['qui cuncta'], [4.350, 5.49], 2
4.354, ['propterea fit uti videantur'], [4.354, 5.704], 2
4.355, ['quia longe'], [4.355, 6.1105], 2
4.356, ['ac perit'], [4.356, 4.692], 2
4.358, ['aëra per multum'], [4.358, 4.558], 2
4.358, ['quia dum'], [4.358, 4.92], 2
4.358, ['simulacra feruntur,'], [4.358, 4.735], 2
4.360, ['hoc ubi'], [4.360, 4.553, 4.622, 4.658, 4.800, 5.807, 6.1005, 6.274, 6.864], 9
4.361, ['fit quasi'], [4.361, 4.942], 2
4.361, ['quasi ut'], [4.361, 6.1087], 2
4.364, ['item nobis'], [4.364, 6.944], 2
4.368, ['aliud nisi'], [4.368, 4.434], 2
4.368, ['nam nihil'], [4.368, 4.467], 2
4.370, ['quia terra'], [4.370, 6.841], 2
4.374, ['e regione'], [4.374, 6.344, 6.742, 6.823, 6.833], 5
4.382, ['hic eadem'], [4.382, 6.824], 2
4.388, ['in statione, ea'], [4.388, 4.396], 2
4.395, ['et luna'], [4.395, 5.1189, 5.1437], 3
4.396, ['quae ferri'], [4.396, 6.1001], 2
4.399, ['ex his'], [4.399, 4.663], 2
4.407, ['ipse suo'], [4.407, 4.472], 2
4.409, ['vix etiam'], [4.409, 5.1038], 2
4.410, ['inter eos'], [4.410, 5.1421], 2
4.416, ['sub terras'], [4.416, 4.419, 5.654, 5.658, 5.682], 5
4.417, ['quantum caeli'], [4.417, 5.200], 2
4.418, ['et caelum'], [4.418, 5.417, 5.693], 3
4.420, ['in medio'], [4.420, 5.451, 5.486, 6.1006, 6.801], 5
4.423, ['vis et'], [4.423, 5.775, 6.238, 6.437], 4
4.425, ['et fluere'], [4.425, 4.676], 2
4.426, ['est denique'], [4.426, 6.502], 2
4.427, ['in perpetuum'], [4.427, 5.981], 2
4.428, ['cum tota'], [4.428, 5.1236], 2

4.430, ['atque omnia'], [4.430, 5.214], 2
4.443, ['per caelum'], [4.443, 5.1189, 5.525, 5.931, 6.1100], 5
4.443, ['cum venti nubila'], [4.443, 6.132], 2
4.452, ['et duplicis'], [4.452, 6.1146], 2
4.455, ['et membra'], [4.455, 5.240, 6.1161], 3
4.455, ['membra movere'], [4.455, 4.878, 5.1173], 3
4.458, ['caelum mare'], [4.458, 5.68], 2
4.462, ['Cetera de', 'Cetera quae'], [4.462, 6.527], 2
4.462, ['genere hoc'], [4.462, 4.510], 2
4.462, ['multa videmus,'], [4.462, 4.72], 2
4.463, ['violare fidem'], [4.463, 4.505], 2
4.464, ['pars horum'], [4.464, 5.288], 2
4.477, ['certo quae'], [4.477, 5.669], 2
4.480, ['maiore fide'], [4.480, 4.482], 2
4.485, ['qui nisi'], [4.485, 5.276], 2
4.490, ['ideoque necesse est'], [4.490, 4.495], 2
4.494, ['seorsus item'], [4.494, 5.448], 2
4.515, ['ex parti'], [4.515, 5.721, 6.694], 3
4.522, ['quisque suam'], [4.522, 5.1033, 6.985], 3
4.530, ['turba maiore coorta'], [4.530, 6.465], 2
4.534, ['e principiis,'], [4.534, 5.440], 2
4.552, ['et item'], [4.552, 4.60, 5.1284], 3
4.573, ['loca sola'], [4.573, 6.396], 2
4.585, ['tibia quas fundit digitis pulsata canentum,'], [4.585, 5.1385], 2
4.590, ['cetera de genere hoc monstra ac portenta'], [4.590, 5.845], 2
4.595, ['Quod super est, non est mirandum qua', 'Quod super est, umore novo mare flumina'], [4.595, 5.261], 2
4.596, ['loca quae'], [4.596, 6.1275], 2
4.596, ['quae nequeunt'], [4.596, 6.303], 2
4.599, ['per flexa foramina'], [4.599, 4.621], 2
4.604, ['aliis aliae'], [4.604, 6.521], 2
4.606, ['spargere in'], [4.606, 6.629], 2
4.610, ['ut sunt'], [4.610, 4.646], 2
4.613, ['atque auris'], [4.613, 5.547], 2
4.617, ['in ore,'], [4.617, 6.1195], 2
4.626, ['quanto quaeque magis'], [4.626, 5.623], 2
4.627, ['est e'], [4.627, 5.663], 2
4.628, ['per fauces'], [4.628, 6.1151, 6.1189], 3
4.629, ['dum diditur'], [4.629, 4.955, 6.1167], 3
4.633, ['aliis alius'], [4.633, 4.677, 4.684, 6.1117], 4
4.633, ['qui sit'], [4.633, 5.612], 2
4.635, ['esse aliis'], [4.635, 6.192, 6.773], 3
4.637, ['est aliis'], [4.637, 4.658], 2
4.640, ['est acre'], [4.640, 5.900], 2
4.642, ['cognoscere possis,'], [4.642, 5.285, 6.113], 3
4.642, ['rebus cognoscere'], [4.642, 4.663, 5.1062], 3
4.643, ['diximus ante,'], [4.643, 4.73], 2
4.651, ['in ore'], [4.651, 6.1228], 2
4.665, ['aut alia'], [4.665, 4.821], 2
4.671, ['enim sunt'], [4.671, 6.222], 2

4.673, ['Nunc age, quo pacto'], [4.673, 6.495], 2
4.681, ['canum vis'], [4.681, 6.1222], 2
4.690, ['quam vox,'], [4.690, 4.699], 2
4.694, ['ex alto'], [4.694, 4.73, 4.863, 4.92, 5.387], 5
4.695, ['fluere atque'], [4.695, 5.506, 5.513], 3
4.697, ['omnia, quod'], [4.697, 5.320], 2
4.698, ['videre licet'], [4.698, 6.79], 2
4.703, ['plaga per'], [4.703, 6.169], 2
4.706, ['solis in'], [4.706, 5.142], 2
4.714, ['ni mirum quia sunt'], [4.714, 6.662, 6.883], 3
4.720, ['in remorando'], [4.720, 6.333], 2
4.722, ['Nunc age, quae'], [4.722, 6.535], 2
4.722, ['quae moveant'], [4.722, 6.166], 2
4.723, ['in mentem'], [4.723, 5.1206], 2
4.724, ['hoc dico,'], [4.724, 6.769], 2
4.726, ['quae facile'], [4.726, 6.355], 2
4.730, ['per rara'], [4.730, 5.457, 6.332], 3
4.732, ['Centauros itaque et', 'Centauros posse neque'], [4.732, 5.891], 2
4.736, ['aëre in'], [4.736, 6.1128], 2
4.736, ['sua quae'], [4.736, 5.860], 2
4.739, ['Centauri fuerunt nec', 'Centauri non fit'], [4.739, 5.878], 2
4.740, ['nulla fuit'], [4.740, 5.324], 2
4.742, ['facile extemplo,'], [4.742, 6.898], 2
4.749, ['facile hinc'], [4.749, 6.1000], 2
4.749, ['hinc cognoscere'], [4.749, 5.285], 2
4.755, ['<et> cetera'], [4.755, 5.1449], 2
4.760, ['eum quem'], [4.760, 5.63], 2
4.763, ['sensus per membra'], [4.763, 4.927], 2
4.768, ['est mirum'], [4.768, 6.615], 2
4.770, ['nam fit ut'], [4.770, 6.426], 2
4.771, ['ubi prima perit alioque est altera nata'], [4.771, 4.800], 2
4.772, ['inde statu, prior hic gestum mutasse videtur.'], [4.772, 4.801], 2
4.773, ['scilicet id fieri'], [4.773, 6.996], 2
4.774, ['tanta est mobilitas et rerum copia'], [4.774, 4.799], 2
4.779, ['quod cuique'], [4.779, 5.960], 2
4.788, ['numerum procedere'], [4.788, 5.1401], 2
4.789, ['et mollia membra'], [4.789, 4.980], 2
4.794, ['magis illud'], [4.794, 5.982], 2
4.795, ['id est'], [4.795, 6.369], 2
4.804, ['pereunt, nisi quae ex'], [4.804, 4.808], 2
4.808, ['ex se'], [4.808, 5.1013, 5.319, 5.322], 4
4.814, ['igitur mirumst,'], [4.814, 6.489], 2
4.817, ['nos in'], [4.817, 6.1133], 2
4.818, ['Fit quoque ut inter dum validi vis incita', 'Fit quoque ut inter dum non suppeditetur imago'], [4.818, 6.137], 2
4.820, ['in manibus'], [4.820, 6.1190], 2
4.831, ['possemus quae'], [4.831, 5.775], 2
4.834, ['corpore ut'], [4.834, 5.126, 5.904], 3
4.836, ['ante videre'], [4.836, 6.463], 2
4.840, ['omnia denique'], [4.840, 6.1272], 2

4.845, ['ante fuit multo quam'], [4.845, 5.1380], 2
4.845, ['lucida tela'], [4.845, 6.40], 2
4.846, ['natura coëgit'], [4.846, 5.1354], 2
4.850, ['prius est quam'], [4.850, 5.1300], 2
4.850, ['sedare sitim'], [4.850, 5.945], 2
4.853, ['omnia, quae'], [4.853, 5.1377, 5.579, 6.959], 4
4.858, ['Illud item non est mirandum, qua ratione', 'Illud item non est mirandum, corporis ipsa', 'Illud item non est ut possis credere,'], [4.858, 5.146, 5.590], 3
4.863, ['multaque per'], [4.863, 4.905, 5.931, 6.1267], 4
4.864, ['multa per'], [4.864, 6.777], 2
4.869, ['membra ac'], [4.869, 5.244], 2
4.870, ['loca cumque'], [4.870, 6.738], 2
4.870, ['umor item'], [4.870, 5.411], 2
4.871, ['multa vaporis'], [4.871, 5.490, 6.275], 3
4.872, ['corpora, quae'], [4.872, 6.347], 2
4.893, ['debet qui'], [4.893, 5.177], 2
4.895, ['ad partis'], [4.895, 6.1031], 2
4.896, ['hic igitur'], [4.896, 6.269], 2
4.898, ['nec tamen illud in his rebus mirabile'], [4.898, 5.666], 2
4.907, ['Nunc quibus ille modis somnus per membra', 'Nunc tamen illa modis quibus inritata repente'], [4.907, 6.680], 2
4.912, ['auris animumque'], [4.912, 6.920], 2
4.912, ['tu mihi'], [4.912, 6.92], 2
4.916, ['ubi est'], [4.916, 5.562, 6.685], 3
4.918, ['concessit in'], [4.918, 5.1012], 2
4.928, ['possit, ut ex'], [4.928, 6.72], 2
4.929, ['Sed quibus ille', 'Sed quibus haec'], [4.929, 5.416], 2
4.935, ['res omnes'], [4.935, 6.1034], 2
4.950, ['et quoniam'], [4.950, 5.258], 2
4.951, ['omnia membra,'], [4.951, 6.945], 2
4.957, ['plurima tum'], [4.957, 5.942], 2
4.961, ['se ac'], [4.961, 6.689], 2
4.963, ['quibus in rebus'], [4.963, 4.985], 2
4.968, ['cum ventis'], [4.968, 5.1096], 2
4.970, ['semper et'], [4.970, 5.1431], 2
4.977, ['eadem rerum'], [4.977, 5.259], 2
4.984, ['usque adeo magni refert'], [4.984, 5.545], 2
4.987, ['cum membra'], [4.987, 6.804], 2
4.1000, ['crura tamen subito vocisque repente'], [4.1000, 4.991], 2
4.1001, ['mittunt et crebro redducunt naribus'], [4.1001, 4.992], 2
4.1002, ['ut vestigia si teneant inventa'], [4.1002, 4.993], 2
4.1003, ['expergefactique secuntur inania'], [4.1003, 4.994], 2
4.1004, ['proinde quasi'], [4.1004, 5.729], 2
4.1005, ['quaeque magis sunt'], [4.1005, 4.626], 2
4.1006, ['in somnis eadem'], [4.1006, 4.965], 2
4.1006, ['magis in somnis'], [4.1006, 5.1171], 2
4.1007, ['at variae'], [4.1007, 5.228], 2
4.1008, ['nocturno tempore'], [4.1008, 5.970, 6.849], 3
4.1020, ['de montibus altis'], [4.1020, 6.735], 2
4.1021, ['ad terram'], [4.1021, 6.53], 2

4.1021, ['ut quasi'], [4.1021, 4.1035], 2
4.1023, ['ad se'], [4.1023, 6.643], 2
4.1034, ['inritans loca turgida semine'], [4.1034, 4.1047], 2
4.1037, ['quod diximus ante,'], [4.1037, 4.742], 2
4.1039, ['commovet atque'], [4.1039, 4.906, 6.1120], 3
4.1040, ['ex homine'], [4.1040, 5.890], 2
4.1044, ['partis genitalis corporis ipsas.'], [4.1044, 6.1207], 2
4.1049, ['et illam'], [4.1049, 6.438], 2
4.1052, ['sic igitur'], [4.1052, 4.520, 4.875, 5.302, 5.467, 5.546, 5.834, 6.262, 6.317, 6.665, 6.895], 11
4.1052, ['Veneris qui telis accipit ictus,', 'Veneris fructu caret is qui'], [4.1052, 4.1073], 2
4.1056, ['corpus de'], [4.1056, 4.932, 4.998], 3
4.1056, ['et iacere umorem'], [4.1056, 4.1065], 2
4.1059, ['in cor'], [4.1059, 6.1152], 2
4.1063, ['simulacra et'], [4.1063, 4.792], 2
4.1069, ['inque dies'], [4.1069, 5.1307, 5.483, 5.733], 4
4.1071, ['Venere exigat', 'Venere ardescunt', 'Veneremque suadent', 'Venere ante'], [4.1071, 4.1157, 4.1235, 5.897], 4
4.1074, ['sed potius'], [4.1074, 4.838, 6.1165], 3
4.1078, ['quid primum'], [4.1078, 5.781], 2
4.1091, ['atque umor'], [4.1091, 5.806, 6.502], 3
4.1097, ['et umor'], [4.1097, 5.235], 2
4.1099, ['frustraque laborat'], [4.1099, 5.1430], 2
4.1101, ['Venus simulacris ludit', 'Venus in silvis'], [4.1101, 5.962], 2
4.1111, ['nec penetrare'], [4.1111, 5.698], 2
4.1112, ['velle et'], [4.1112, 5.1128], 2
4.1113, ['Veneris compagibus haerent,', 'Veneris compagibus haerent?'], [4.1113, 4.1204], 2
4.1128, ['Veneris sudorem exercita', 'Veneris stimulis excita'], [4.1128, 4.1215], 2
4.1129, ['et bene'], [4.1129, 6.419], 2
4.1133, ['medio de'], [4.1133, 4.397], 2
4.1137, ['aut quod'], [4.1137, 4.719], 2
4.1143, ['possis oculorum'], [4.1143, 5.101], 2
4.1146, ['plagas in'], [4.1146, 4.263], 2
4.1147, ['est quam'], [4.1147, 4.467, 4.849], 3
4.1148, ['et validos'], [4.1148, 5.1310], 2
4.1154, ['quae non sunt'], [4.1154, 4.466], 2
4.1157, ['alios alii'], [4.1157, 4.496], 2
4.1166, ['tum fit,'], [4.1166, 6.1063], 2
4.1168, ['Ceres est ipsa', 'Ceres <et> etesia'], [4.1168, 5.742], 2
4.1170, ['cetera de genere hoc'], [4.1170, 4.744, 4.832, 5.164, 5.37, 6.244], 6
4.1170, ['est si'], [4.1170, 5.606], 2
4.1174, ['facere omnia'], [4.1174, 5.1187, 6.244], 3
4.1174, ['facit et'], [4.1174, 6.1015], 2
4.1178, ['floribus et'], [4.1178, 5.1400], 2
4.1189, ['atque omnis'], [4.1189, 5.1199, 5.496], 3
4.1193, ['corpus cum'], [4.1193, 6.501], 2
4.1195, ['nam facit'], [4.1195, 4.1280, 6.343], 3
4.1198, ['et pecudes et'], [4.1198, 5.1110], 2

4.1199, ['ipsa quod'], [4.1199, 6.325], 2
4.1200, ['Venerem si laeta retractat', 'Venerem salientum laeta retractat.'], [4.1200, 4.1270], 2
4.1203, ['cum saepe'], [4.1203, 4.34, 6.1202], 3
4.1203, ['saepe canes'], [4.1203, 4.705], 2
4.1206, ['in fraudem'], [4.1206, 4.817, 5.1005], 3
4.1207, ['quare etiam'], [4.1207, 4.701, 5.153, 5.332, 5.376, 5.907], 6
4.1207, ['etiam atque etiam,'], [4.1207, 6.341], 2
4.1217, ['et neque'], [4.1217, 5.777], 2
4.1218, ['fit quoque ut, in nostrum cum venit denique', 'fit quoque ut inter dum similes existere avorum', 'fit ut inter dum tam quam demissa columna', 'fit quoque enim inter dum <ut> non tam'], [4.1218, 6.1123, 6.116, 6.426], 4
4.1226, ['facies et corpora'], [4.1226, 4.452], 2
4.1227, ['patrio de'], [4.1227, 6.908], 2
4.1229, ['semper enim'], [4.1229, 4.145, 4.375, 6.1027], 4
4.1230, ['magis id'], [4.1230, 5.1344], 2
4.1231, ['plus parte'], [4.1231, 5.686], 2
4.1233, ['Nec divinitus', 'Nec divina'], [4.1233, 4.1278], 2
4.1235, ['et ut'], [4.1235, 4.825], 2
4.1242, ['non potis est'], [4.1242, 4.803], 2
4.1249, ['alias alii'], [4.1249, 5.327], 2
4.1251, ['et multae'], [4.1251, 6.589], 2
4.1254, ['et quibus'], [4.1254, 4.1263, 4.985], 3
4.1254, ['ante domi'], [4.1254, 5.1334], 2
4.1256, ['ut possent'], [4.1256, 5.475, 5.843], 3
4.1260, ['quo victu'], [4.1260, 4.630], 2
4.1262, ['atque aliis'], [4.1262, 6.521], 2
4.1266, ['quia sic'], [4.1266, 5.599, 5.701], 3
4.1276, ['et simul ipsa'], [4.1276, 6.476], 2
4.1285, ['longo spatio'], [4.1285, 4.178], 2
4.1285, ['spatio tamen'], [4.1285, 6.622], 2
5.17, ['fama est'], [5.17, 5.663], 2
5.33, ['corpore serpens'], [5.33, 6.660], 2
5.40, ['scatit et'], [5.40, 6.891], 2
5.52, ['cum bene'], [5.52, 6.507, 6.534], 3
5.56, ['quaeque creata'], [5.56, 5.733], 2
5.60, ['consistere corpore'], [5.60, 6.44], 2
5.65, ['ut mihi'], [5.65, 6.1066], 2
5.67, ['et quibus ille modis'], [5.67, 5.73], 2
5.76, ['cursus lunaeque meatus'], [5.76, 5.774], 2
5.76, ['praeterea solis'], [5.76, 6.874], 2
5.78, ['caelum terramque'], [5.78, 6.601], 2
5.82, ['nam bene qui didicere deos securum agere aevom,'], [5.82, 6.58], 2
5.83, ['si tamen interea mirantur qua ratione'], [5.83, 6.59], 2
5.84, ['quaeque geri possint, praesertim rebus in illis'], [5.84, 6.60], 2
5.85, ['quae supera caput aetheriis cernuntur in oris,'], [5.85, 6.61], 2
5.86, ['rursus in antiquas referuntur'], [5.86, 6.62], 2
5.87, ['et dominos acris adsciscunt, omnia posse'], [5.87, 6.63], 2
5.88, ['quos miseri credunt, ignari quid queat esse,'], [5.88, 6.64], 2
5.91, ['in promissis plura'], [5.91, 6.245], 2

5.92, ['maria ac terras'], [5.92, 6.491, 6.612], 3
5.105, ['forsitan et'], [5.105, 5.610], 2
5.106, ['parvo tempore'], [5.106, 6.489], 2
5.110, ['de re'], [5.110, 6.768, 6.979], 3
5.115, ['terras et'], [5.115, 5.693], 2
5.117, ['par esse'], [5.117, 5.881], 2
5.126, ['ut esse'], [5.126, 6.536], 2
5.151, ['quod sit'], [5.151, 5.160, 5.628], 3
5.160, ['sit ratione'], [5.160, 6.767], 2
5.163, ['et ab'], [5.163, 6.687], 2
5.174, ['quidve mali'], [5.174, 6.29, 6.811], 3
5.177, ['qui cumque est'], [5.177, 6.502], 2
5.187, ['multa modis multis primordia rerum'], [5.187, 5.422], 2
5.187, ['ita multa'], [5.187, 6.887], 2
5.188, ['ex infinito iam tempore percita plagis'], [5.188, 5.423], 2
5.189, ['ponderibusque suis consuerunt concita ferri'], [5.189, 5.424], 2
5.190, ['omnimodisque coire atque omnia pertemptare,'], [5.190, 5.425], 2
5.191, ['quae cumque inter se'], [5.191, 5.426], 2
5.191, ['congressa creare,'], [5.191, 5.426], 2
5.206, ['id natura'], [5.206, 5.877], 2
5.212, ['in auras.'], [5.212, 6.1021, 6.842], 3
5.213, ['et tamen inter dum'], [5.213, 6.603], 2
5.214, ['iam per'], [5.214, 6.838], 2
5.216, ['gelidaeque pruinae'], [5.216, 6.529], 2
5.219, ['terraque marique'], [5.219, 6.678], 2
5.224, ['primum in luminis oras'], [5.224, 5.781], 2
5.238, ['mortali corpore'], [5.238, 5.321, 5.6], 3
5.239, ['omnis mundi'], [5.239, 5.496], 2
5.240, ['quippe etenim,'], [5.240, 6.938], 2
5.241, ['mortalibus esse'], [5.241, 6.10], 2
5.243, ['maxima mundi'], [5.243, 5.380], 2
5.246, ['aliquod tempus clademque'], [5.246, 6.566], 2
5.255, ['ad diluviem'], [5.255, 6.292], 2
5.256, ['imbribus et'], [5.256, 5.798], 2
5.264, ['primum quicquid'], [5.264, 5.284, 5.304], 3
5.265, ['tollitur in'], [5.265, 6.507], 2
5.266, ['partim quod'], [5.266, 5.268, 6.20, 6.22], 4
5.266, ['verrentes aequora venti'], [5.266, 5.388], 2
5.267, ['deminuunt radiisque retexens aetherius sol,'], [5.267, 5.389], 2
5.269, ['percolatur enim virus retroque remanat'], [5.269, 6.635], 2
5.270, ['materies umoris et ad caput amnibus omnis'], [5.270, 6.636], 2
5.271, ['inde super terras'], [5.271, 6.637], 2
5.271, ['agmine dulci'], [5.271, 6.637], 2
5.272, ['qua via secta semel liquido pede detulit undas.'], [5.272, 6.638], 2
5.285, ['id licet hinc'], [5.285, 6.167], 2
5.287, ['inter quasi'], [5.287, 5.299], 2
5.287, ['radios inter'], [5.287, 5.767], 2
5.302, ['lunam stellasque'], [5.302, 5.643], 2
5.311, ['monimenta virum'], [5.311, 6.242], 2
5.313, ['montibus altis'], [5.313, 5.492, 5.663], 3

5.314, ['nec validas'], [5.314, 5.58], 2
5.316, ['ex infinito quae'], [5.316, 5.367], 2
5.316, ['quae tempore'], [5.316, 5.669], 2
5.325, ['et caeli'], [5.325, 6.1111, 6.1134, 6.1228], 4
5.336, ['cum primis ipse'], [5.336, 6.260], 2
5.367, ['forte coorta'], [5.367, 6.1096], 2
5.374, ['neque altis'], [5.374, 5.935], 2
5.385, ['quod facere'], [5.385, 5.552], 2
5.395, ['ut fama est,'], [5.395, 5.412], 2
5.395, ['in arvis.'], [5.395, 5.806], 2
5.401, ['in terram,'], [5.401, 6.745], 2
5.406, ['quod procul a vera'], [5.406, 6.767], 2
5.406, ['nimis est'], [5.406, 6.673], 2
5.417, ['fundarit terram'], [5.417, 5.68], 2
5.426, ['se possent'], [5.426, 6.1214], 2
5.434, ['nec denique'], [5.434, 5.541], 2
5.437, ['inde loci'], [5.437, 5.741, 5.791], 3
5.446, ['a terris altum'], [5.446, 5.754], 2
5.453, ['mare sidera solem'], [5.453, 5.68], 2
5.457, ['foramina terrae'], [5.457, 5.811, 6.592], 3
5.460, ['non alia longe ratione ac'], [5.460, 6.306], 2
5.465, ['quae sursum'], [5.465, 6.527], 2
5.466, ['corpore concreto'], [5.466, 5.468], 2
5.468, ['circum datus'], [5.468, 6.1036], 2
5.469, ['et late'], [5.469, 6.619], 2
5.478, ['in statione'], [5.478, 6.193], 2
5.483, ['aetheris aestus'], [5.483, 5.519, 6.481], 3
5.484, ['radii solis'], [5.484, 6.40], 2
5.488, ['camposque natantis,'], [5.488, 6.1142], 2
5.489, ['tanto magis'], [5.489, 5.633, 6.460], 3
5.490, ['corpora multa'], [5.490, 6.451], 2
5.497, ['gravis et'], [5.497, 6.1073], 2
5.505, ['impete labens.'], [5.505, 6.334], 2
5.515, ['aut alium'], [5.515, 6.657], 2
5.517, ['est etiam quoque uti'], [5.517, 5.604], 2
5.517, ['quoque uti possit'], [5.517, 6.724], 2
5.520, ['quaerentesque viam circum versantur et'], [5.520, 6.200], 2
5.538, ['partibus aëriis'], [5.538, 5.553], 2
5.539, ['est oneri'], [5.539, 5.541], 2
5.546, ['igitur tellus'], [5.546, 6.816, 6.843], 3
5.551, ['supra quae'], [5.551, 5.655], 2
5.555, ['coniuncta atque uniter'], [5.555, 5.558], 2
5.556, ['magno pondere'], [5.556, 5.975, 6.549], 3
5.556, ['vides etiam quam'], [5.556, 5.602], 2
5.560, ['est nisi'], [5.560, 6.958], 2
5.564, ['Nec nimio'], [5.564, 5.988], 2
5.570, ['nostros ad sensus et loca'], [5.570, 5.574], 2
5.575, ['loca lumine'], [5.575, 6.173], 2
5.575, ['lumine lustrans,'], [5.575, 5.693], 2
5.584, ['tanta hinc nobis videatur in'], [5.584, 5.596], 2

5.585, ['quos cumque'], [5.585, 5.586], 2
5.586, ['cumque in'], [5.586, 6.500], 2
5.593, ['et calido'], [5.593, 5.798, 6.858], 3
5.597, ['totius unum'], [5.597, 6.650], 2
5.598, ['scatere atque erumpere'], [5.598, 5.952], 2
5.599, ['elementa vaporis'], [5.599, 6.312], 2
5.601, ['hic ut'], [5.601, 6.907], 2
5.604, ['non magno'], [5.604, 6.549], 2
5.606, ['si forte et'], [5.606, 6.318], 2
5.609, ['ex una'], [5.609, 6.1029, 6.558], 3
5.616, ['brumalis adeat flexus atque inde', 'brumalis usque ad flexus gelidumque'], [5.616, 5.640], 2
5.619, ['annua sol in quo'], [5.619, 5.692], 2
5.624, ['tanto posse minus cum'], [5.624, 5.631], 2
5.628, ['fervida signa.'], [5.628, 5.642], 2
5.637, ['fit quoque'], [5.637, 6.844], 2
5.639, ['qui queat'], [5.639, 6.857], 2
5.646, ['nubila ventis'], [5.646, 6.513], 2
5.647, ['in partis'], [5.647, 6.648], 2
5.648, ['per magnos'], [5.648, 6.191], 2
5.650, ['nox obruit'], [5.650, 6.864], 2
5.651, ['longo cursu'], [5.651, 6.179], 2
5.652, ['languidus ignis'], [5.652, 5.758], 2
5.657, ['differt et'], [5.657, 6.691], 2
5.658, ['aut quia sol'], [5.658, 5.682], 2
5.662, ['quae faciunt'], [5.662, 5.761, 6.217, 6.305, 6.484], 5
5.665, ['quasi in unum'], [5.665, 6.344], 2
5.667, ['tam certo tempore'], [5.667, 5.750], 2
5.671, ['et certo'], [5.671, 5.749], 2
5.673, ['tempore et'], [5.673, 6.230], 2
5.684, ['et in partis'], [5.684, 6.1207], 2
5.687, ['ad id'], [5.687, 6.28], 2
5.687, ['donec ad'], [5.687, 5.877], 2
5.699, ['hiberno tempore'], [5.699, 5.940], 2
5.710, ['inde minutatim retro'], [5.710, 5.725], 2
5.717, ['quod fertur'], [5.717, 6.372], 2
5.721, ['candenti lumine'], [5.721, 6.1197], 2
5.731, ['cur nequeat'], [5.731, 5.769], 2
5.731, ['denique cur'], [5.731, 6.400], 2
5.742, ['etesia flabra'], [5.742, 6.730], 2
5.748, ['quo minus est mirum, si'], [5.748, 5.799], 2
5.750, ['tempore multa.'], [5.750, 6.416], 2
5.751, ['Syria quoque fertur item', 'Solis item quoque defectus'], [5.751, 6.756], 2
5.754, ['lumine et'], [5.754, 5.763], 2
5.755, ['radiis ardentibus'], [5.755, 6.618, 6.860], 3
5.764, ['dum rigidas coni perlabitur'], [5.764, 5.771], 2
5.770, ['inimica per'], [5.770, 6.777], 2
5.772, ['Quod superest, quoniam magni', 'Quod superest, <quali> natura'], [5.772, 6.219], 2
5.773, ['posset ratione'], [5.773, 6.21], 2

5.784, ['terra dedit'], [5.784, 5.805], 2
5.799, ['plura coorta'], [5.799, 6.1013], 2
5.801, ['principio genus'], [5.801, 5.862], 2
5.817, ['et molli'], [5.817, 5.889], 2
5.822, ['merito, quoniam'], [5.822, 6.548], 2
5.824, ['omne quod'], [5.824, 5.865], 2
5.828, ['mundi naturam totius aetas'], [5.828, 5.834], 2
5.829, ['ex alioque alius'], [5.829, 6.915], 2
5.837, ['tum tellus etiam'], [5.837, 5.942], 2
5.859, ['genus id'], [5.859, 5.877], 2
5.864, ['cum pectore'], [5.864, 6.75], 2
5.865, ['veterino semine'], [5.865, 5.890], 2
5.866, ['pecudes et bucera'], [5.866, 6.1245], 2
5.871, ['nec ipsa'], [5.871, 6.1020], 2
5.879, ['esse queunt'], [5.879, 6.103], 2
5.886, ['aetate senecta'], [5.886, 5.896], 2
5.915, ['circum se'], [5.915, 5.971, 6.891], 3
5.920, ['quae de'], [5.920, 6.329], 2
5.929, ['nec frigore'], [5.929, 6.708], 2
5.933, ['curvi moderator aratri'], [5.933, 6.1253], 2
5.950, ['umida saxa,'], [5.950, 5.951], 2
5.972, ['per agros'], [5.972, 6.642], 2
5.1004, ['nec poterat'], [5.1004, 6.1250], 2
5.1009, ['ipsi sibi'], [5.1009, 5.1109], 2
5.1017, ['et Venus'], [5.1017, 5.962], 2
5.1022, ['vocibus et'], [5.1022, 5.1044], 2
5.1026, ['iam tum'], [5.1026, 5.1037, 5.1169], 3
5.1038, ['etiam cum'], [5.1038, 5.1226], 2
5.1045, ['facere id non'], [5.1045, 5.1347, 5.756], 3
5.1045, ['tempore eodem'], [5.1045, 5.756, 5.765], 3
5.1046, ['alii quoque'], [5.1046, 5.327], 2
5.1047, ['unde insita'], [5.1047, 5.182], 2
5.1052, ['ratione docere'], [5.1052, 5.735], 2
5.1058, ['res voce'], [5.1058, 5.1090], 2
5.1059, ['saecla ferarum'], [5.1059, 5.967, 5.982, 6.1220], 4
5.1061, ['et cum iam'], [5.1061, 5.1066], 2
5.1065, ['longe alio'], [5.1065, 5.1070], 2
5.1068, ['aut ubi'], [5.1068, 5.651, 6.114, 6.191], 4
5.1069, ['dentibus haustus,'], [5.1069, 5.991], 2
5.1073, ['denique non'], [5.1073, 5.232, 5.311], 3
5.1078, ['genus alituum variaeque'], [5.1078, 5.801], 2
5.1080, ['victum vitamque'], [5.1080, 5.1105, 5.804], 3
5.1087, ['varii sensus'], [5.1087, 6.984], 2
5.1088, ['tamen cum'], [5.1088, 5.1096, 5.479, 5.518], 4
5.1090, ['alia atque'], [5.1090, 6.192], 2
5.1090, ['alia res'], [5.1090, 5.292], 2
5.1092, ['in terram'], [5.1092, 5.1321, 6.205, 6.837, 6.872], 5
5.1094, ['multa videmus enim'], [5.1094, 5.849], 2
5.1095, ['cum caeli'], [5.1095, 5.624, 6.362, 6.644], 4
5.1104, ['per agros.'], [5.1104, 5.1366], 2

5.1111, ['et viribus'], [5.1111, 5.1174], 2
5.1111, ['pro facie'], [5.1111, 5.1174], 2
5.1114, ['et validis'], [5.1114, 5.1326], 2
5.1123, ['ad summum'], [5.1123, 5.1457], 2
5.1132, ['magis edita'], [5.1132, 6.460], 2
5.1134, ['quam sensibus'], [5.1134, 5.565], 2
5.1140, ['nam cupide'], [5.1140, 5.868], 2
5.1141, ['ad summam'], [5.1141, 6.679], 2
5.1144, ['legibus uti.'], [5.1144, 5.959], 2
5.1145, ['vi colere'], [5.1145, 5.1150], 2
5.1148, ['ex ira'], [5.1148, 6.72], 2
5.1148, ['quod enim'], [5.1148, 5.977], 2
5.1149, ['quam nunc'], [5.1149, 5.988], 2
5.1152, ['vis atque'], [5.1152, 5.964, 6.328, 6.802], 4
5.1154, ['nec facilest'], [5.1154, 6.331], 2
5.1161, ['deum per'], [5.1161, 6.70], 2
5.1165, ['etiam nunc'], [5.1165, 5.17, 5.884], 3
5.1166, ['delubra deum'], [5.1166, 5.308, 6.75], 3
5.1167, ['terrarum et'], [5.1167, 5.325], 2
5.1177, ['tamen omnino'], [5.1177, 6.1219], 2
5.1178, ['ulla vi'], [5.1178, 5.162], 2
5.1181, ['multa et'], [5.1181, 5.817, 6.619], 3
5.1181, ['et mira'], [5.1181, 5.1404], 2
5.1184, ['tempora verti'], [5.1184, 5.1438], 2
5.1185, ['nec poterant'], [5.1185, 5.1272, 5.1316, 5.1337], 4
5.1189, ['nox et'], [5.1189, 5.1190], 2
5.1192, ['nix venti'], [5.1192, 6.529], 2
5.1193, ['fremitus et murmura'], [5.1193, 6.410], 2
5.1201, ['sanguine multo'], [5.1201, 5.1421], 2
5.1206, ['venit in'], [5.1206, 6.594], 2
5.1217, ['inmensi validas aevi contemnere'], [5.1217, 5.379], 2
5.1221, ['et magnum'], [5.1221, 6.326], 2
5.1226, ['mare venti'], [5.1226, 6.436, 6.505], 3
5.1226, ['cum vis'], [5.1226, 6.582], 2
5.1227, ['super aequora'], [5.1227, 6.108], 2
5.1231, ['violento turbine'], [5.1231, 5.217, 5.368], 3
5.1232, ['nihilo fertur'], [5.1232, 5.577], 2
5.1243, ['ubi ingentis'], [5.1243, 6.545], 2
5.1244, ['montibus in'], [5.1244, 6.422], 2
5.1245, ['sive quod'], [5.1245, 5.1247, 5.519], 3
5.1270, ['quam validi'], [5.1270, 6.1011], 2
5.1272, ['pariter durum sufferre'], [5.1272, 5.1359], 2
5.1273, ['fuit in'], [5.1273, 5.1277, 5.180], 3
5.1275, ['in summum'], [5.1275, 6.430], 2
5.1278, ['et <e> contemptibus'], [5.1278, 5.833], 2
5.1278, ['porro aliud'], [5.1278, 5.833], 2
5.1279, ['inque dies magis'], [5.1279, 5.1370, 5.706], 3
5.1281, ['ferri natura'], [5.1281, 6.1011, 6.1042, 6.1062], 4
5.1285, ['quam sunt'], [5.1285, 6.103, 6.104], 3
5.1304, ['et magnas'], [5.1304, 5.439], 2

5.1309, ['in hostis.'], [5.1309, 5.1317], 2
5.1320, ['nec opinantis'], [5.1320, 6.408], 2
5.1327, ['suo tinguentes sanguine'], [5.1327, 5.1328], 2
5.1340, ['cum multa'], [5.1340, 6.307], 2
5.1344, ['et magis'], [5.1344, 5.629, 6.773], 3
5.1345, ['in variis mundis varia ratione creatis,'], [5.1345, 5.528], 2
5.1366, ['nova defodere in terram virgulta'], [5.1366, 5.935], 2
5.1386, ['per nemora ac'], [5.1386, 5.41], 2
5.1388, ['unum quicquid paulatim protrahit aetas'], [5.1388, 5.1454], 2
5.1389, ['in medium ratioque in luminis'], [5.1389, 5.1455], 2
5.1391, ['tum sunt'], [5.1391, 5.799], 2
5.1404, ['nova tum'], [5.1404, 5.790], 2
5.1430, ['genus in'], [5.1430, 6.113, 6.917], 3
5.1430, ['Et genus humanum', 'Ergo hominum genus'], [5.1430, 5.925], 2
5.1437, ['sol et'], [5.1437, 5.383], 2
5.1439, ['ordine certo.'], [5.1439, 5.679], 2
5.1449, ['cetera de genere horum,'], [5.1449, 5.893], 2
5.1453, ['pedetemptim progredientis.'], [5.1453, 5.533], 2
6.56, ['[quorum operum causas nulla ratione videre'], [6.56, 6.90], 2
6.57, ['possunt ac fieri divino numine rentur.]'], [6.57, 6.91], 2
6.85, ['qua de'], [6.85, 6.940], 2
6.121, ['Hoc etiam pacto volucri loca', 'Hoc etiam pacto tonitru concussa'], [6.121, 6.173], 2
6.128, ['eius et'], [6.128, 6.234], 2
6.128, ['et impetus'], [6.128, 6.337], 2
6.132, ['Est etiam ratio, cum venti', 'Est etiam cum vis extrinsecus'], [6.132, 6.295], 2
6.137, ['incita venti'], [6.137, 6.295], 2
6.143, ['in altis'], [6.143, 6.495], 2
6.145, ['Fit quoque, ubi in magnas aquae vastasque', 'Fit quoque, ubi e nubi in nubem'], [6.145, 6.552], 2
6.151, ['ingenti sonitu'], [6.151, 6.442], 2
6.160, ['Fulgit item, nubes ignis cum', 'Fulgit item, cum rarescunt quoque'], [6.160, 6.214], 2
6.167, ['si quem'], [6.167, 6.847], 2
6.174, ['nubes et'], [6.174, 6.272], 2
6.175, ['ventus ubi'], [6.175, 6.578], 2
6.182, ['semina, quae faciunt'], [6.182, 6.213], 2
6.184, ['ad lumina'], [6.184, 6.900], 2
6.186, ['aliis alias'], [6.186, 6.773], 2
6.204, ['de causa'], [6.204, 6.85], 2
6.209, ['multa necessest'], [6.209, 6.272], 2
6.211, ['cum ventus'], [6.211, 6.215], 2
6.211, ['igitur cum'], [6.211, 6.362], 2
6.214, ['cum rarescunt quoque nubila'], [6.214, 6.513], 2
6.215, ['ventus eas'], [6.215, 6.274], 2
6.222, ['sunt haec'], [6.222, 6.374], 2
6.230, ['facit aes'], [6.230, 6.966], 2
6.232, ['omnia circum'], [6.232, 6.686], 2
6.261, ['terra quoque'], [6.261, 6.806], 2
6.271, ['permulta vaporis'], [6.271, 6.883], 2

6.281, ['ubi percaluit'], [6.281, 6.686], 2
6.297, ['quam cum'], [6.297, 6.436], 2
6.300, ['Fit quoque ut inter dum venti vis missa sine igni', 'hoc fit ubi inter dum non quit vis incita venti', 'Fit quoque ut inter dum vis haec atque aestus Averni'], [6.300, 6.431, 6.830], 3
6.304, ['ex ipso'], [6.304, 6.312, 6.346], 3
6.328, ['volat impete'], [6.328, 6.334], 2
6.352, ['aes aurumque'], [6.352, 6.966], 2
6.375, ['eo si'], [6.375, 6.796], 2
6.379, ['Hoc genus', 'Hoc est'], [6.379, 6.917], 2
6.383, ['unde volans ignis pervenerit aut in utram se'], [6.383, 6.87], 2
6.384, ['verterit hinc partim, quo pacto per loca saepta'], [6.384, 6.88], 2
6.385, ['insinuarit, et hinc dominatus ut extulerit'], [6.385, 6.89], 2
6.387, ['Iuppiter atque alii', 'Iuppiter in terras'], [6.387, 6.401], 2
6.388, ['caelestia templa'], [6.388, 6.670], 2
6.404, ['in mare qua'], [6.404, 6.425], 2
6.413, ['sub tempore'], [6.413, 6.416], 2
6.424, ['ab re'], [6.424, 6.740], 2
6.427, ['in mare de caelo'], [6.427, 6.433], 2
6.429, ['et quae cumque in eo'], [6.429, 6.45], 2
6.436, ['in mare'], [6.436, 6.633], 2
6.441, ['aquam subito'], [6.441, 6.889], 2
6.443, ['Fit quoque ut hunc veniant in', 'Fit quoque ut involvat venti se'], [6.443, 6.483], 2
6.446, ['hic ubi'], [6.446, 6.524, 6.686, 6.836], 4
6.470, ['quoque tollere'], [6.470, 6.627], 2
6.483, ['in caelum'], [6.483, 6.957], 2
6.496, ['umor et in'], [6.496, 6.875], 2
6.497, ['expediam. primum'], [6.497, 6.682], 2
6.503, ['multum quoque'], [6.503, 6.627], 2
6.505, ['venti nubila portant.'], [6.505, 6.630], 2
6.507, ['quo cum'], [6.507, 6.824], 2
6.507, ['semina aquarum'], [6.507, 6.520], 2
6.510, ['vis venti'], [6.510, 6.592], 2
6.517, ['fit, ubi'], [6.517, 6.685], 2
6.524, ['ubi sol radiis'], [6.524, 6.869], 2
6.530, ['vis magna'], [6.530, 6.815], 2
6.533, ['omnia quo'], [6.533, 6.610], 2
6.585, ['in Syria'], [6.585, 6.756], 2
6.589, ['in terris et'], [6.589, 6.630], 2
6.601, ['proinde licet quamvis'], [6.601, 6.620], 2
6.604, ['quadam de parte'], [6.604, 6.820], 2
6.628, ['ex aequore'], [6.628, 6.634], 2
6.649, ['rerum esse'], [6.649, 6.770], 2
6.660, ['ignis et'], [6.660, 6.872], 2
6.684, ['in speluncis'], [6.684, 6.942], 2
6.684, ['porro in'], [6.684, 6.840], 2
6.694, ['montis ad'], [6.694, 6.696], 2
6.715, ['ostia contra,'], [6.715, 6.725], 2
6.730, ['tempore eo'], [6.730, 6.796], 2

6.738, ['Averna loca', 'Averna tibi', 'Averna vocantur'], [6.738, 6.740, 6.818], 3
6.757, ['quo simul ac'], [6.757, 6.821], 2
6.775, ['propter dissimilem naturam'], [6.775, 6.990], 2
6.801, ['quam facile in'], [6.801, 6.803], 2
6.811, ['mali fit'], [6.811, 6.829], 2
6.847, ['exprimat in'], [6.847, 6.867], 2
6.850, ['hunc homines'], [6.850, 6.910], 2
6.867, ['quae semina cumque habet'], [6.867, 6.876], 2
6.936, ['raro corpore'], [6.936, 6.958], 2
6.948, ['item transire per'], [6.948, 6.949], 2
6.958, ['nihil est'], [6.958, 6.972], 2
6.967, ['at coria et carnem'], [6.967, 6.969], 2
6.988, ['id fieri cogit natura viarum'], [6.988, 6.996], 2
6.989, ['multimodis varians, ut paulo ostendimus'], [6.989, 6.997], 2
6.1002, ['e lapide hoc'], [6.1002, 6.1057], 2
6.1004, ['est cumque'], [6.1004, 6.1033], 2
6.1007, ['in vacuum'], [6.1007, 6.1014, 6.1019], 3
6.1008, ['anulus ipse'], [6.1008, 6.1014], 2
6.1009, ['nec res ulla magis'], [6.1009, 6.154], 2
6.1012, ['quo minus est'], [6.1012, 6.615], 2
6.1017, ['hoc fit idem cunctas in partis; unde vace fit', 'hoc fit idem in partis alias, quo cumque tulit'], [6.1017, 6.299], 2
6.1030, ['per crebra foramina'], [6.1030, 6.592], 2
6.1034, ['denique res'], [6.1034, 6.1078], 2
6.1041, ['partem in'], [6.1041, 6.1249], 2
6.1042, ['Fit quoque ut ipsius plagae', 'Fit quoque ut a lapide'], [6.1042, 6.309], 2
6.1042, ['lapide hoc'], [6.1042, 6.1089], 2
6.1046, ['lapis hic'], [6.1046, 6.907], 2
6.1051, ['omnia plena'], [6.1051, 6.269], 2
6.1055, ['atque per'], [6.1055, 6.950], 2
6.1055, ['per aes'], [6.1055, 6.948], 2
6.1062, ['interutrasque igitur'], [6.1062, 6.362], 2
6.1066, ['ex hoc'], [6.1066, 6.696, 6.710], 3
6.1090, ['Nunc ratio quae sit morbis aut unde repente', 'Nunc ratio quae sit, per fauces montis ut'], [6.1090, 6.639], 2
6.1092, ['morbida vis'], [6.1092, 6.1152], 2
6.1095, ['morbo mortique'], [6.1095, 6.1144], 2
6.1099, ['aut extrinsecus'], [6.1099, 6.579], 2
6.1100, ['aut ipsa'], [6.1100, 6.579], 2
6.1107, ['Aegypto in media neque', 'Aegypto est, qua mundi'], [6.1107, 6.1115], 2
6.1109, ['nigra virum percocto saecla'], [6.1109, 6.722], 2
6.1112, ['tum color'], [6.1112, 6.526], 2
6.1121, ['ac nubes'], [6.1121, 6.402], 2
6.1130, ['quoque in'], [6.1130, 6.898, 6.905], 3
6.1141, ['Aegypti finibus ortus,', 'Aegypti totius amnis.'], [6.1141, 6.713], 2
6.1160, ['per saepe'], [6.1160, 6.714], 2
6.1163, ['nec nimio'], [6.1163, 6.1196], 2
6.1200, ['ulceribus taetris'], [6.1200, 6.1271], 2
6.1233, ['cum corde'], [6.1233, 6.5], 2
6.1272, ['sancta deum delubra'], [6.1272, 6.417], 2

6.1285, ['cum sanguine'], [6.1285, 6.501], 2

BIBLIOGRAPHY

Aicher, P.J. (1989), 'Ennius' Dream of Homer', *American Journal of Philology* 110 (2), 227-32.

Alden, M. (2000), *Homer Beside Himself: para-narratives in the* Iliad, Oxford.

Allen, T.W. (1931), ed., *Homeri Ilias*, Oxford.

Arend, W. (1933), *Die typischen Scenen bei Homer*, Berlin.

Arrighetti, G. (1973), ed., *Epicuro. Opere*, Turin.

Asmis, E. (1970) (Diss.), 'The Epicurean Theory of Free Will and its Origins in Aristotle', New Haven.

Asmis, E. (1983), 'Rhetoric and Reason in Lucretius', *The American Journal of Philology* 104 (1), 36-66.

Axelsson, E.L. and Horst, J.S. (2014), 'Contextual Repetition Facilitates Word Learning Via Fast Mapping', *Acta Psychologica* 152, 95-9.

Babut, D. (2005), 'Sur les dieux d'Épicure', *Elenchos* 26, 79-110.

Bailey, C. (1926), *Epicurus. The Extant Remains*, Oxford.

Bailey, C. (1947), ed., *Titi Lucreti Cari.* De Rerum Natura*. Libri Sex*, Oxford.

Bakker, E.J. and Fabbricotti, F. (1991), 'Peripheral and Nuclear Semantics in Homeric Diction: The Case of Dative Expressions for "Spear"', *Mnemosyne* 44, 63-84.

Bakker, E.J. (1999), 'Introduction: Homer and Oral Poetry Research', in I.J.F. De Jong, ed., *Homer: Critical Assessments*, London/ New York.

Barra, G. (1952), *Struttura e Composizione del* De Rerum Natura *di Lucrezio*, Naples.

Barthes, R. (1977), *Image Music Text: essays selected and translated by Stephen Heath*, London.

Beye, C.R. 1963. Lucretius and Progress, *CJ* 58: 160-9.

Bignone, E. (1919), 'Nuove ricerche sul proemio del poema di Lucrezio, *Rivista di Filologia* 47, 423-33.

Blickman, D.R. (1989), 'Lucretius, Epicurus and Pre-history', *Harvard Studies in Philology* 92, 157-191.

Blum, H. (1969), *Die antike Mnemotechnik*, *Spudasmata* 15, Hildesheim.

Bobzien, S. (2000), 'Did Epicurus Discover the Free Will Problem?', *Oxford Studies in Ancient Philosophy* 19, 287-337.

Bockemüller, F. (1873), ed., *Titi Lucreti Cari* De Rerum Natura *Libri Sex*, Stade.

Bollack, J. (1975), *La pensée du plaisire: Épicure, texts moraux, commentaires*, Paris.

Bowra, C.M. (1930), *Tradition and Design in the* Iliad, Oxford.

Bowra, C.M. (1952), *Heroic Poetry*, London.

Boyancé, P. (1963), *Lucrece et l'Epicurisme*, Paris.

Brieger, A. (1894), ed., *T. Lucreti Cari* De Rerum Natura *Libri Sex*, Leipzig.

Bright, D.F. (1971), 'The Plague and the Structure of *De Rerum Natura*', *Latomus* 30, 607-32.

Brown, P.M. (1984), ed., *Lucretius* De Rerum Natura *I*, Bristol.

Büchner, K. (1936), *Beobachtungen über Vers und Gedankengang bei Lukrez* (*Hermes Einzelschriften* 1), Berlin.

Büchner, K. (1966), ed., *Titi Lucreti Cari* De Rerum Natura, Wiesbaden.

Buglass, A.K. (2014), 'A Note on Lucretius, *De Rerum Natura* 3.361', *Classical Quarterly* 64 (1), 314-17.

Butterfield, D.J. (2013), *The Early Textual History of Lucretius'* De Rerum Natura*,* Cambridge.

Butterfield, D.J. (2014), 'Lucretius Auctus? The Question of Interpolation in *De Rerum Natura*', in J. Martínez, ed., *Fakes and Forgers of Classical Literature*, Leiden, 15-42.

Cacioppo, J.T. and Petty, R.E. (1989), 'Effects of Message Repetition on Argument Processing, Recall, and Persuasion', *Basic and Applied Social Psychology* 10 (1), 3-12.

Campbell, D.A. (1967), *Greek Lyric Poetry. A Selection of Early Greek Lyric, Elegiac and Iambic Poetry*, New York.

Campbell, G.L. (2003), *Lucretius on Creation and Evolution: a Commentary on* De Rerum Natura, *Book 5, lines 772-1104*. Oxford.

Canfora, L. (1993), *Vita di Lucrezio*, Palermo.

Caplan, H. (1981), ed., *[Cicero]* ad C. Herennium de ratione dicendi (Rhetorica ad Herennium, Cambridge, Mass..

Catrein, C. (2003), *Vertauschte Sinne: Untersuchungen zur Synästhesie in der Römischen Dichtung*, München/ Leipzig.

Clark, M. (2004), 'Formalas, Metre and Type-Scenes', in R. Fowler ed., *The Cambridge Companion to Homer*, Cambridge, 117-38.

Clark, E.V. and Bernicot, J. (2008), 'Repetition as Ratification: how parents and children place information in common ground', *Journal of Child Language* 35, 349-71.

Classen, C.J. (1968), 'Poetry and Rhetoric in Lucretius', *Transactions and Proceedings of the American Philological Association* 99, 77-118.

Clay, D. (1976), 'The Sources of Lucretius' Inspiration', in J. Bollack and A. Laks (eds.), *Études sur l'Épicurisme antique (= Cahiers de Philologie* 1), Lille, 203–27 (repr. in Clay, D. (1998), *Paradosis and Survival: Three Chapters in the History of Epicurean Philosophy*, Ann Arbor, 138–60).

Clay, D. (1983), *Lucretius and Epicurus*, London.

Commager, Jr., H.S. (2007), 'Lucretius' Interpretation of the Plague', in M.R. Gale (ed.), *Oxford Readings in Classical Studies: Lucretius*, Oxford, 182-98.

Conte, G.B (1970-71), 'Catullo 107, 7-8, *Studi Classici e* Orientali 19-20, 338-42.

Conte, G.B. (1986), *The Rhetoric of Imitation. Genre and Poetic Memory in Virgil and Other Latin Poets*, Ithaca.

Conte, G.B. (2007), 'Proems in the Middle', in S.J. Harrison, ed., *The Poetry of Pathos. Studies in Virgilian Epic*, Oxford, 219-43.

Cook, A.B. (1901), 'Associated Reminiscences', *The Classical Review* 15, 338-45.

Cox, A.S. (1971), 'Lucretius and His Message: A Study in the Prologues of the *De Rerum Natura*', *Greece and Rome* 18 (1), 1-16.

Currie, B.G.F. (2006) 'Homer and the Early Epic Tradition', in M.J. Clark, B.G.F. Currie, and R.O.A.M. Lyne (eds.), *Epic Interactions: Perspectives on Homer, Virgil, and the Epic Tradition presented to Jasper Griffin by former pupils*, Oxford, 1-46.

Dalzell, A. (1987), 'Language and Atomic Theory in Lucretius', *Hermathena* 143, 19-28.

Danek, G. (2009), 'Apollonius Rhodius as an (anti-)Homeric narrator: time and space in the *Argonautica*', in J. Grethlein and A. Rengakos (eds), *Narratology and Interpretation: the content of narrative form in ancient literature*, New York.

De Jong, I.J.F. (1999), *Homer: Critical Assessments*, London/ New York.

De Jong, I.J.F. (2009), 'Metalepsis in Ancient Greek Literature', in J. Grethlein and A. Rengakos, edd., *Narratology and Interpretation*, Berlin/ New York, 87-116.

Deufert, M. (1996), *Pseudo-Lucrezisches im Lukrez: Die unechten Verse in Lukrezens 'DRN'*, Berlin.
Deutsch, R.E. (1939), *The Pattern of Sound in Lucretius*, New York.
Diels, H. (1923-4), ed., *Titus Lucretius Carus* De Rerum Natura lateinisch und deutsch, Berlin.
Diels, H. and Kranz, W. (1951[6]), edd., *Die Fragmente der Vorsokratiker*, Berlin.
Dover, K.J. (1997), *The Evolution of Greek Prose Style*, Oxford.
Duff, J.D. (1923), ed., *T. Lucreti Cari.* De Rerum Natura. *Liber Primus*, Cambridge.
Duff, J.W. (1963[3]), *A Literary History of Rome: from the origins to the close of the golden age*, London/ New York.
Dudley, D. R. (1965), ed., *Lucretius*, London, 35-67.
Düntzer, H. (1872), *Homerische Abhandlungen*, Leipzig.
Dyck, A.R. (2010), ed., *Cicero: Pro Sexto Roscio*, Cambridge.
Dyck, A.R. (2013), ed., *Cicero: Pro Marco Caelio*, Cambridge.
Edwards, G.P. (1971), *The Language of Hesiod in its Traditional Context*, Oxford.
Edwards, M.W. (1992), 'Homer and Oral Tradition: The Type-Scene', *Oral Tradition* 7 (2), 283-330.
Effe, B. (1977), *Dichtung und Lehre: Untersuchungen zur Typologie des antiken Lehrgedichts*, Munich.
Elder, J.P. (1954), 'Lucretius 1.1-49', *Transactions and Proceedings of the American Philological Association* 85, 88-120.
Elderkin, G.W. (1913), 'Repetition in the *Argonautica* of Apollonius', *The American Journal of Philology* 34.2, 198-201.
Elliot, J. (2008), 'Ennian Epic and Ennian Tragedy in the Language of the *Aeneid*: Aeneas' Generic Wandering and the Construction of the Latin Literary Past', *Harvard Studies in Classical Philology* 104, 241-72.
Elliott, J. (2013), *Ennius and the Architecture of the* Annales, Cambridge.
Erler, M. (1994), 'Erstes Kapitel: Epikur', 'Zweites Kapitel: Die Schule Epikurs', 'Drittes Kapitel: Lukrez' in H. Flashar, ed., *Die Philosophie der Antike 4: die hellenistische Philosophie*, Basel, 29-490.
Erler, M. (2002), 'Epicurus as *Deus Mortalis*: *Homoiosis Theoi* and Epicurean Self Cultivation', in D. Frede and A. Laks, edd., *Traditions of Theology: Studies in Hellenistic Theology: Its Background and Aftermath*, Leiden/ Boston, 159-81.
Ernout, A. (1948[8]), ed., *De La Nature*, Paris.
Ernout, A, and Meillet, A. (1951), *Dictionnaire Etymologique de la Langue Latine. Histoire des Mots*, Paris.
Ernout, A. and Robin, L. (1962[2]), edd., *Lucrèce*, De rerum natura: *commentaire exégétique et critique, précédé d'une introduction sur l'art de Lucrèce et d'une traduction des lettres et pensées d'Épicure*, Paris.
Farrell, J. (2005), 'Intention and Intertext', *Phoenix* 59 (1/2), 98-111.
Farrell, J. (2007), 'Lucretian Architecture: the structure and argument of the *De rerum natura*', in S. Gillespie and P. Hardie, edd., *The Cambridge Companion to Lucretius*, Cambridge, 76-91.
Farrell, J. (2008), 'The Six Books of Lucretius' *De Rerum Natura*: antecedents and influence', *Dictynna: revue de poétique latine* (5), consulted 11/12/15 URL: http://dictynna.revues.org/385.
Farrington, B. (1953), '*Vita Prior* in Lucretius', *Hermathena* 81, 59-62.
Farrington, B. (1965), 'Form and Purpose in the *DRN*' in D.R. Dudley (ed.), *Lucretius*, London, 19-34.
Flores, E. (1994), 'Lucretius 4.1-25 and the Proems of the *De Rerum Natura*',

Proceedings of the Cambridge Philological Society 40, 1-17.
Flores, E. (2002), ed., *Titus Lucretius Carus,* De Rerum Natura. *Edizione critica con Introduzione e Versione a cura di Enrico Flores. Volume 1*, Naples.
Forbiger, A. (1828), ed., *Titi Lucreti Cari* De Rerum Natura *Libri Sex*, Leipzig.
Fotheringham, L. (2004), 'Repetition and Unity in the *Pro Caecina*', in J. Powell and J. Paterson, edd., *Cicero the Advocate*, Oxford, 253-76.
Fowler, D. (1989), 'Lucretius and Politics', in M. Griffin and J. Barnes, edd., *Philosophia Togata*, Oxford, 120-50.
Fowler, D. (2000), *Roman Constructions. Readings in Postmodern Latin*, Oxford.
Fowler, D. (2002a), ed., *Lucretius on Atomic Motion. A Commentary on* De Rerum Natura*, Book Two, Lines 1-332*, Oxford.
Fowler, D. (2002b), 'Masculinity Under Threat? The Poetics and Politics of Inspiration in Latin Poetry', in E. Spentzou and D. Fowler, edd., *Cultivating the Muse: struggles for power and inspiration in classical literature*, Oxford, 141-60.
Fowler, P. (1983) (Diss.), 'A Commentary on Part of Book Six of Lucretius *De Rerum Natura*', Oxford.
Fowler, P. (2007), 'Lucretian Conclusions', in M.R. Gale, ed., *Oxford Readings in Classical Studies: Lucretius*, Oxford, 199-233.
Fowler, R. (2004), 'The Homeric Question', in R. Fowler, ed., *The Cambridge Companion to Homer*, Cambridge, 220-32.
Friedländer, P. (1939), 'The Epicurean Theology in Lucretius' First Prooemium (Lucr. I. 44-49)', *Transactions and Proceedings of the American Philologial Association* 70, 368-79.
Friedländer, P. (1941), 'Pattern of Sound and Atomistic Theory in Lucretius', *American Journal of Philology* 62, 16-34.
Furley, D.J. (1966), 'Lucretius and the Stoics', in *Bulletin of the Institute of Classical Studies* 13, 13-33.
Furley, D. (2005), 'Cosmology' in K. Algra, J. Barnes, J. Mansfeld and M. Schofield, edd., *The Cambridge History of Hellenistic Philosophy*, Cambridge, 412-51.
Furley, D. 2007. Lucretius the Epicurean: On the History of Man. In *Oxford Readings in Lucretius*, ed. M. R. Gale, Oxford, 158-81.
Gale, M.R. (1994a), *Myth and Poetry in Lucretius*, Cambridge.
Gale, M.R. (1994b), 'Lucretius 4.1-25 and the Proems of *De Rerum Natura*', *Proceedings of the Cambridge Philological Society* 40, 1-17.
Gale, M.R. (2000), *Virgil on the Nature of Things: the Georgics, Lucretius and the didactic tradition*, Cambridge.
Gale, M.R. (2007), 'Introduction', in M.R. Gale, ed., *Oxford Readings in Lucretius*, Oxford, 1-17.
Gale, M.R. (2009), ed., *Lucretius:* De Rerum Natura *V*, Oxford.
Garani, M. (2007), *Empedocles* Redevivus: *Poetry and Analogy in Lucretius*, London/ New York.
Genette, G. (1972), *Discours du récit*', *Figures III*, Paris, 65-282; trans. J.E. Lewin (1980), *Narrative Discourse. An Essay in Method*, Ithaca, New York.
Giannantoni, G. (1996), 'Epicuro e l'ateismo antico', in G. Giannantoni and M. Gigante, edd., *Epicureismo greco e romano: Atti del congresso internazionale,* Naples, 21-63.
Giesecke, A.L. (2000), *Atoms, Ataraxy, and Allusion*: *cross-generic imitation of the* De Rerum Natura *in early Augustan poetry*, Zürich/ New York.

Gigon, O. (1977), 'Lukrez und Ennius', in O. Gigon, ed., *Lucrèce: Entretiens sur l'Anquité Classique* 24, Vandoeuvres/ Geneva.
Giussani, C. (1896-8), ed., *T. Lucreti Cari* De Rerum Natura *Libri Sex*, Turin.
Grasberger, L. (1856) (Diss.), 'De Lucretii Cari Carmine', Munich.
Griffin, J. (1980), *Homer on Life and Death*, Oxford.
Günther, H.C. (2011), ed., *Brill's Companion to Propertius*, Leiden.
Hainsworth, J.B. (1968), *The Flexibility of the Homeric Formula*, Oxford.
Hainsworth, B. (1993), *The Iliad: a commentary. Volume III: books 9-12*, Cambridge.
Hardie, P.R. (1986), *Virgil's* Aeneid*: cosmos and imperium*, Oxford.
Harrison, S.J. (1995), '*Discordia Taetra*: The History of a Hexameter-Ending', *Classical Quarterly* 41, 138-49.
Harrison, S.J. (2000), *Apuleius: a Latin Sophist*, Oxford.
Harrison, S.J. (2002), 'Ennius and the Prologue to Lucretius *DRN* 1 (1.1-148), *Leeds International Classical Studies* 1.4.
Harrison, S.J. (2007), 'From Man to Book: the close of Tacitus' *Agricola*', in S.J. Heyworth, P.G. Fowler, and S.J. Harrison, edd., *Classical Constructions: papers in memory of Don Fowler, classicist and Epicurean*, Oxford, 310-19.
Heath, M. (1985), 'Hesiod's Didactic Poetry', *Classical Quarterly* 35 (1), 245-63.
Hendren, G. (2012), 'Woven Alliteration in the *De Rerum Natura*', *The Classical Journal* 107 (4), 409-22.
Hicks, R.D. (1925). *Diogenes Laertius, Lives of the Eminent Philosophers*, Cambridge, Mass..
Hinds, S. (1987), 'Language at the Breaking Point: Lucretius 1.452', *Classical Quarterly* 37 (2), 450-3.
Hinds, S. (1998), *Allusion and Intertext: dynamics of appropriation in Roman poetry*, Cambridge.
Hofmann, J.B. and Szantyr, A. (1972), *Lateinische Syntax und Stilistik*, München.
Hopkinson, N. (1982), 'Juxtaposed Prosodic Variants in Greek and Latin Poetry', *Glotta* 60, 162-77.
Hunter, R. (1989), ed., *Apollonius of Rhodes:* Argonautica *Book III*, Cambridge.
Hunter, R. (1993), *The* Argonautica *of Apollonius: literary studies*, Cambridge.
Hutchinson, G.O. (2009), 'Read the Instructions: didactic poetry and didactic prose', *Classical Quarterly* 59 (1), 196-211.
Ingalls, W.B. (1971), 'Repetition in Lucretius', *Phoenix* 25 (3), 227-236.
Janko, R. (2000), ed., *Philodemus: On Poems Book 1*, Oxford.
Keen, R. (1985), 'Lucretius and his Reader', *Apeiron* 19 (1), 1-10.
Kelly, G. (2008), *Ammianus Marcellinus*: *the allusive historian*, Cambridge.
Kennedy, D. (2007), 'Making a Text of the Universe: Perspectives on Discursive Order in the DRN of Lucretius' in M. Gale, ed., *Oxford Readings in Lucretius*, Oxford, 376-96.
Kenney, E.J. (1971), *Lucretius* De Rerum Natura *Book III*, Cambridge.
Kenney, E.J. (1977), *Lucretius*, *Greece and Rome: New Surveys in the Classics* 11, Oxford.
Kenney, E.J. (1998), 'Downsizing the *DRN*', *The Classical Review* 48 (1), 25-7.
Kenney, E.J. (2007a), 'Lucretian Texture: style, metre and rhetoric in the *De rerum natura*, in S. Gillespie and P.R. Hardie, edd., *The Cambridge Companion to Lucretius*, Cambridge, 92-110.
Kenney, E.J. (2007b), 'Doctus Lucretius', in M.R. Gale, ed., *Oxford Readings in Lucretius*, Oxford, 300-27 = Kenney, E.J. (1970), 'Doctus Lucretius', *Mnemosyne* 23, 366-92.

Kenney, E.J. (2014[2]), *Lucretius* De Rerum Natura *Book III*, Cambridge.
Kleve, K. (1977), 'The Philosophical Polemics in Lucretius', in O. Gigon, ed., *Lucrèce: Entretiens sur l'Anquité Classique* 24, Vandoeuvres/ Genève, 39-71.
Kleve, K. (1979), 'What Kind of Work did Lucretius Write?', *Symbolae Osloenses* 54 (1), 81-5.
Knauer, G.N. (1964), *Die Aeneis und Homer. Studien zur poetischen Technik Vergils mit Listen der Homerzitate in der Aeneis*, *Hypomnemata* 7, Göttingen.
Konstan, D. (2011), 'Epicurus on the Gods', in J. Fish and K.R. Sanders, edd., *Epicurus and the Epicurean Tradition*, Cambridge, 53-71.
Kretschmer, P.F. (1913), *De iterates Hesiodeis*, Breslau.
Kristeva, J. (1969), 'Le Mot, le dialogue, et le roman', *Sémeiotiké: Recherches pour une sémanalyse*, 82-110.
Kullmann, W. (1984), 'Oral Poetry Theory and Neoanalysis in Homeric Research', in I.J.F. de Jong, ed., *Homer: critical assessments*, Volume 1: The Creation of the Poems, London/ New York, 145-62.
Kühner, R. and Holzweissig, F. (1982), *Ausführliche Grammatik der lateinischen Sprache: Satzlehre*, Darmstadt.
Kühner, R. and Stegmann, C. (1962[4]), *Ausführliche Grammatik der lateinischen Sprache: Satzlehre*, München.
Kyriakidis, S. (2006), 'Lucretius' *DRN* 1.926-50 and the Proem to Book 4', *Classical Quarterly* 56 (2), 606-10.
Lachmann, K.K.F.W. (1850), ed., *T. Lucreti Cari* De Rerum Natura *Libri Sex*, Berlin.
Lambinus, D. (1565[2]), ed., *Titi Lucretii* De Rerum Natura *Libri Sex*, Paris.
Lambinus, D. (1570[4]), ed., *Titi Lucretii* De Rerum Natura *Libri Sex*, Paris.
Lambinus, D. (1583[8]), ed., *Titi Lucretii* De Rerum Natura *Libri Sex*, Frankfurt.
Lambinus, D. *et al.* (1725[4]), *Titi Lucretii Cari De Rerum Natura Libri Sex cum notis integris Dionysii Lambini, Oberti Gifani, Tanaquilli Fabri, Thomae Creech, et selectis Jo. Baptistae Pii, aliorumque, curante Sigeberto Havercampo, qui et suas et Abrahami Preigeri adnotationes adiecit. Accedunt interpretatio Thomae Creech, variae lectiones ex notulis Is. Vossii, atque ex plusquam viginti quinque codd. tam impress. quam mss. ut et complures iique locupletissimi indices. Cum figuris artificiosissimis atque venustissimis*, Leiden.
Lange, F.A. (1866), *Geschichte des Materialismus*, Iserlohn.
Lehoux, D. (2013), 'Seeing and Unseeing, Seen and Unseen', in D. Lehoux, A.D. Morrison, and A. Sharrock, edd., *Lucretius: Poetry, Philosophy, Science*, Oxford, 131-51.
Leonard, W.E. and Smith, S.B. (1942), edd., *Titi Lucreti Cari* De Rerum Natura *Libri Sex*, Madison.
Lightfoot, G. C. (1953), ed., *De Rerum Natura liber quintus*, Melbourne.
Long, A.A. and Sedley, D.N. (1987a), *The Hellenistic Philosophers: Volume 1: translations of the principal sources with philosophical commentary*, Cambridge.
Long, A.A. and Sedley, D.N. (1987b), *The Hellenistic Philosophers: Volume 2: Greek and Latin texts with notes and bibliography*, Cambridge.
Lovejoy, A.O. and Boas, G. 1935. *Primitivism and Related Ideas in Antiquity*. Baltimore/ London.
Luz, C. (2010), *Technopaignia, Formspiele in der griechischen Dichtung*, Leiden/ Boston.
Lyne, R.O.A.M. (1994), 'Vergil's 'Aeneid': Subversion by Intertextuality. Catullus 66.39-40 and Other Examples', *Greece and Rome* 41 (2), 187-204.

Macleod, C.W. (1982), ed., Homer, *Iliad* Book XXIV, Cambridge.
Macleod, C.W. (2001), 'Homer on Poetry and the Poetry of Homer', in D.L. Cairns, (ed.), *Oxford Readings in Homer's Iliad,* Oxford, 294-310.
Macguinness, W.G. (1965), 'The Language of Lucretius', in D.R. Dudley, ed., *Lucretius*, London, 71-80.
Mansfeld, J. (1993), 'Aspects of Epicurean Theology', *Mnemosyne* 46, 172-210.
Mansfeld, J. (1995), 'Insight by Hindsight: intentional unclarity in presocratic poems', *Bulletin of the Institute of Classical Studies* 40 (10), 225-32.
Martin, J. (1969), ed., *Titi Lucreti Cari* De Rerum Natura *Libri Sex*, Leipzig.
Martindale, C. (1993), *Redeeming the Text: Latin poetry and the Hermeneutics of Reception*, Bristol.
Martindale, C. (2005), *Latin Poetry and the Judgement of Taste: An Essay in Aesthetics*, Oxford.
Meillet, A. (1923), *Les Origines indo-européennes des mètres grecs*, Paris.
Menge, H. (2009[4]), *Lehrbuch der lateinischen Syntax und Semantik*, Darmstadt.
Merkelbach, R. and West, M.L. (1967), edd., *Fragmenta Hesiodea*, Oxford.
Merrill, W.A. (1907), ed., *Titi Lucreti Cari* De Rerum Natura *Libri Sex*, New York.
Mewaldt, J. (1986), 'Eine Dublette in Buch IV des Lukrez', in C.J. Classen, ed., *Probleme der Lukrezforschung*, Hildesheim/ Zürich/ New York, 31-64 (repr. from Mewaldt, J. (1908), 'Eine Dublette in Buch IV des Lukrez', *Hermes* 43 (2), 286-95).
Meyer, D.E. and Schvaneveldt, R.W. (1971), 'Facilitation in Recognizing Pairs of Words: evidence of a dependence between retrieval operations', *Journal of Experimental Psychology* 90, 227-34.
Meyer, D.E. and Schvaneveldt, R.W. (1973), 'Retrieval and Comparison Processes in Semantic Memory', in S. Kornblum, ed., *Attention and Performance IV*, New York, 295-409.
Minadeo, R. (1965), 'The Formal Design of "De Rerum Natura"', *Arion* 4 (3), 444-61.
Minchin, E. (2001), *Homer and the Resources of Memory: some applications of cognitive theory to the* Iliad *and the* Odyssey, Oxford.
Minyard, J.D. (1978), 'Mode and Value in the *De Rerum Natura*: A Study in Lucretius' Metrical Language', *Hermes. Zeitschrift Für Klassische Philologie. Einzelschriften*. *Heft* 39.
Mitsis, P. (1993), 'Committing Philosophy on the Reader: Didactic Coercion and Reader Autonomy in *De Rerum Natura*', *Materiali e Discussioni per l'Analisi dei Testi Classici* 31, 111-28.
Mommsen, T. (1894), *The History of Rome*, London; trans. with the sanction of the author by W.P. Dickson.
Moskalew, W. (1982), *Formular Language and Poetic Design in the* Aeneid, Leiden.
Munro, H.A.J. (1866[4]), ed., *T. Lucreti Cari,* De Rerum Natura*, Libri Sex*, London.
Mussehl, J. (1912) (Diss.), 'De Lucretiani libri primi condicione ac retratatione: accedunt duae appendices', Griefswald.
Müller, F. (1935), 'Studia ad Terrae Matris cultum pertinentia', *Mnemosyne* 2, 37-50.
Müller, G. (1978). 'Die Finalia der sechs Bücher des Lucrez', in O. Gigon (ed.) *Lucrece (= Entretiens Hardt* 24), Geneva, 197–231.
Müller, G. (2007), 'The Conclusions of the Six Books of Lucretius', in M.R. Gale (ed.), *Oxford Readings in Classical Studies: Lucretius*, Oxford, 234-54.
Müller, M. (1984), ed., *The Iliad*, London.
Mynors, R.A.B. (1969), ed., *P. Vergili Maronis* Opera, Oxford.

Notopoulos, J.A. (1960), 'Homer, Hesiod and the Achaean heritage of oral poetry', *Hesperia* 29, 177-97.
O'Brien, S. (2010), ed., *Andrew Marvell: poems*, London.
O'Hara, J.J. (2005), 'Trying Not to Cheat: responses to inconsistencies in Roman epic', *Transactions of the American Philological Association* 135 (1), 15-33.
O'Hara, J.J. (2007), *Inconsistency in Roman Epic. Studies in Catullus, Lucretius, Vergil, Ovid and Lucan*, Cambridge.
O'Keefe, T. (2010), *Epicureanism*, Berkeley.
O'Neill, E.G. (1942), 'The Localization of Metrical Word-Types in the Greek Hexameter: Homer, Hesiod, and the Alexandrians', *Yale Classical Studies* 8, 105-78.
O'Rourke, D. (2014), 'Lovers in Arms: Empedoclean Love and Strife in Lucretius and the Elegists', *Dictynna: revue poétique latine* 11.
Obbink. D. (1989), 'The Atheism of Epicurus', *Greek, Roman and Byzantine Studies* 30, 165-86.
Obbink, D. (1996), *Philodemus: On Piety Part I, Critical Text with Commentary*, Oxford.
Obbink, D. (2002), '"All gods are true" in Epicurus', in D. Frede and A. Laks, *Traditions of Theology: Studies in Hellenistic Theology, its Background and Aftermath*, Leiden, 183-221.
Owen, W. H. (1969), 'Structural patterns in Lucretius' De rerum natura', *Classical World* 62, 166-172.
Paratore, H. and Pizzani, H. (1960), edd., *Lucreti* De Rerum Natura*:locos praecipue notabiles collegit et illustravit Hector Paratore. Commentariolo instruxit Hucbaldus Pizzani*, Rome.
Parry, A. (1971), ed., *The Making of Homeric Verse. The Collected Papers of Milman Parry*, Oxford.
Parry, M. (1928), *L'Épithète traditionnelle dans Homère. Essai sur un problème de style homérique*, Thèse pour le doctorat ès lettres presentée à la Faculté des Lettres de l'Université de Paris, Paris.
Parry, M. (1928), *Les Formules et la métrique d'Homère*, Paris.
Patin, H.J.G. (1883), *Études sur la Poésie Latine*, Paris.
Poteat, H. (1912), *Repetition in Latin Poetry with Special Reference to the Metrical Treatment of Repeated Words*, New York.
Powell, J.G.F. (2013), 'Cicero's Style', in C. Steel, ed., *The Cambridge Companion to Cicero*, Cambridge, 41-72.
Pizzani, U. (1959), *Il problema del testo e della composizione del* De Rerum Natura *di Lucrezio*, Rome.
Prinzen, H. (1998), *Ennius im Urteil der Antike*, Stuttgart.
Pucci, P. (2007), ed., *Inno Alle Muse (Esiodo,* Teogonia*, 1-115). Testo, Introduzione, Traduzione e commento*, Pisa/ Rome.
Pucci, J. (1998), *The Full-Knowing Reader*, New Haven.
Purinton, J. (1999), 'Epicurus on 'Free Volition' and the Atomic Swerve', *Phronesis* 44 (4), 253-99.
Purinton, J. (2001), 'Epicurus on the Nature of the Gods', *Oxford Studies in Ancient Philosophy* 21, 181-231.
Race, W.H. (1982), *The Classical Priamel from Homer to Boethius*, Leiden.
Rawson, E. (1985), *Intellectual Life in the Late Roman Republic*, London.
Regenbogen, O. (1932), *Lukrez*, Leipzig/ Berlin.

Reinhardt, T. (2002), 'The Speech of Nature in Lucretius' "De Rerum Natura" 3.931-71', *Classical Quarterly* 52 (1), 291-304.
Reinhardt, T. (2008a), 'Epicurus and Lucretius on the Origins of Language', *Classical Quarterly* 58 (1), 127-40.
Reinhardt, T. (2008b), 'Propertius and Rhetoric', in H.C. Günther, ed., *Brill's Companion to Propertius*, Leiden, 199-218.
Reynolds, L.D. and Wilson, N.G. (2013[4]), *Scribes and Scholars: a guide to the transmission of Greek and Latin literature*, Oxford.
Ross, D.O. (1975), *Backgrounds to Augustan Poetry: Gallus, Elegy and Rome*, Cambridge.
Sandbach, F.H. (1940), '*Lucreti Poemata* and the Poet's Death', *Classical Review* 54 (2), 72-7.
Santayana, G. (1910), *Three Philosophical Poets: Lucretius, Dante, and Goethe*, Cambridge, Massachusetts.
Scheid, J. and Svenboro, J. (1996), *The Craft of Zeus: myths of weaving and fabric*, Cambridge.
Schiesaro, A. (1987), 'Lucrezio, Cicerone, l'oratoria', *Materiali e Discussioni per l'Anilisi dei Testi Classici* 19, 29-61.
Schiesaro, A. (1990), *Simulacrum et Imago. Gli argomenti analogici nel* De rerum natura*,* Pisa.
Schiesaro, A. (1994), 'The Palingenesis of *De Rerum Natura*', *Proceedings of the Cambridge Philological Society* 40, 81-107.
Schmid, W. (1962), 'Epikur', *Reallexikon für Antike und Christentum*, Vol. 5, Stuttgart, 681-819.
Schmidt, J. (1975) (Diss.), 'Lukrez und die Stoiker. Quellenuntersuchungen zu *De rerum natura*', Marburg.
Schmidt, J. (1990), *Lukrez, der Kepos und die Stoiker*, Frankfurt am Main.
Schrijvers, P.H. (1970) (Diss.), 'Horror ac Divina Voluptas: études sur la poétique et la poésie sur Lucrèce', Amsterdam.
Schrijvers, P.H. (2007), 'Seeing the Invisible: a study of Lucretius' use of analogy in the *De rerum natura*', in M.R. Gale, ed., *Oxford Readings in Classical Studies. Lucretius*, Oxford, 255-88.
Schwiebe, M.W. (2003), 'Sind die epikureischen Götter "thought-constructs"?', *Mnemosyne* 56, 703-27.
Scott, W. (1883), 'The Physical Constitution of the Epicurean Gods', *Journal of Philology* 12, 212-47.
Sedley, D.N. (1998), *Lucretius and the Transformation of Greek Wisdom*, Cambridge.
Sedley, D.N. (2007), *Creationism and Its Critics in Antiquity*, Berkeley.
Sedley, D.N. (2011), 'Epicurus' Theological Innatism', in J. Fish and K.R. Sanders, edd., *Epicurus and the Epicurean Tradition*, Cambridge, 29-52.
Sharrock, A. (2000), 'Texts, Parts, and (W)holes in Theory', in A. Sharrock and H. Morales, edd., *Intratextuality: Greek and Roman Textual Relations*, Oxford, 1-39.
Sharrock, A. (2013), 'Introduction', in D. Lehoux, A.D. Morrison, and A. Sharrock, edd., *Lucretius: poetry, philosophy, science*, Oxford, 1-24.
Sharrock, A. and Morales, H. (2000), edd., *Intratextuality: Greek and Roman Textual Relations*, Oxford.
Shewan, A. (1923a), 'Repetition in Homer and Tennyson', *The Classical Weekly* 16 (20), 153-8.

Shewan, A. (1923b), 'Repetition in Homer and Tennyson (Concluded)', *The Classical Weekly* 16 (21), 162-6.
Silk, M. (1987), *Homer. The* Iliad, Cambridge.
Sinclair, T.A. (1932), ed., *Hesiod,* Works and Days, London.
Skutsch, O. (1968), *Studia Ennia*, London.
Skutsch, O. (1985), *The* Annals *of Quintus Ennius*, Oxford.
Smith, M. F. (1966) 'Some Lucretian Thought Processes', *Hermathena* 102, 73-83.
Smith, M.F. (1992), ed., *Lucretius. DRN. With an English Translation by W. H. D. Rouse*, Cambridge, Massachusetts/ London.
Snyder, J.M. (1980), *Puns and Poetry in Lucretius'* De Rerum Natura, Amsterdam.
Solmsen, F. (1970), ed., *Hesiodi opera*, Oxford.
Sparrow, J. (1931), *Half-lines and Repetitions in Virgil*, Oxford.
Spentzou, E. (2002), 'Introduction: secularizing the muse', in E. Spentzou and D. Fowler, edd., *Cultivating the Muse: struggles for power and inspiration in classical literature*, Oxford, 1-28.
Spentzou, E. and Fowler, D., edd., (2002), *Cultivating the Muse: struggles for power and inspiration in classical literature*, Oxford.
Sutton, E.W. and Rackham, H.(1979), edd., *Cicero* de oratore *in two volumes I: Books I, II*, Cambridge, Mass./London.
Thomas, R.E. (1999), 'Virgil's *Georgics* and the Art of Reference', in R.E. Thomas, *Reading Virgil and His Texts: studies in intertextuality*, Ann Arbor, 114-41 = Thomas, R.E. (1986), 'Virgil's *Georgics* and the Art of Reference', *Harvard Studies of Classical Philology* 90, 171-98.
Thury, E.M. (1987), 'Lucretius' Poem as a Simulacrum of the Rerum Natura', *The American Journal of Philology* 108 (2), 270-94.
Townend, G. B. (1978), 'The fading of Memmius' *Classical Quarterly* 28, 267-283.
Townend (1979), 'The Original Plan of Lucretius' *De Rerum Natura*', *Classical Quarterly* 29 (1), 101-11.
Trépanier, S. (2007), 'The Didactic Plot of Lucretius, *De Rerum Natura*, and its Empedoclean Model', *Bulletin of the Institute of Classical Studies* 50, 243-82.
Visser, E. (1988), 'Formulae or single words? Towards a new theory on Homeric verse-making', *Würzburger Jahrbücher für die Altertumswissenschaft* 14, 21-37.
Volk, K. (2002), *The Poetics of Latin Didactic: Lucretius, Vergil, Ovid, Manilius*, Oxford.
Wallach, B.P. (1976), *Lucretius and the Diatribe Against the Fear of Death.* De Rerum Natura *III 830-1094*, Leiden.
Walde, A. and Hofmann, J.B. (1938), *Lateinisches Etymologisches Wörterbuch*, Heidelberg.
Wardy, R. (1988), 'Lucretius on What Atoms Are Not', *Classical Philology* 83, 112-28.
West, D.A. (1969), *The Imagery and Poetry of Lucretius*, Edinburgh.
West, D.A. (1970), 'Virgilian Multiple Correspondence Similes and their Antecedents', *Philologus* 114, 262-75.
West, M.L. (1978), ed., *Hesiod. Works and Days*, Oxford.
West, M.L. (2011), *The Making of the* Iliad. *Disquisition and Analytical Commentary*, Oxford.
Whitmarsh, T.E. (2013), 'Radical Cognition: Metalepsis in Classical Greek Drama', *Greece and Rome* 60 (1), 4-16.

Wigodsky, M. (1995), 'The alleged impossibility of philosophical poetry', in D. Obbink, ed., *Philodemus and Poetry: poetic theory and practice in Lucretius, Philodemus, and Horace*, Oxford, 58-68.

Wilkinson, L.P. (1949), 'Lucretius and the Love-Philtre', *Classical Review* 63, 47-8.

Wills, J. (1996), *Repetition in Latin Poetry: figures of allusion*, Oxford.

Wolf, F.A. (1999), 'Prolegomena ad Homerum', in I.J.F. De Jong, ed., *Homer: Critical Assessments*, London/ New York.

Worthington, I. (1991), 'Greek Oratory, Revision of Speeches and the Problem of Historical Reliability', *Classica et Mediaevalia: revue danoise de philologie et d'histoire* 42, 55-74.

Wright, M.R. (1995), ed., *Empedocles: the extant fragments. Edited with Introduction, Commentary, Concordance, and New Bibliography*, Bristol.

Ziegler, K. (1936), 'Der Tod des Lucretius', *Hermes* 71, 421-40.