

How Lucretius Composed the *De rerum natura*

1. The thesis

My aim is to argue for the following account of Lucretius' procedure when composing the *De rerum natura*. His sole Epicurean source was Epicurus' *On Nature*, and, of that, mainly the first fifteen of its thirty-seven books. Initially he followed its sequence of topics very closely, indeed almost mechanically. But to some extent as he proceeded, and to a greater extent during a phase of rewriting, he developed a radically revised structure for the whole. At his death, the reorganisation of books I-III was (so far as I can judge) complete. For books IV-VI, however, he had plans which can still to some extent be discerned from his proems, but which he did not live to put into operation.

The Lucretian material of which I am speaking is the physical exposition in the main body of all six books. Naturally I am assuming the remainder to be his own original compositions, in some cases drawing on his independent knowledge of Epicurean ethics — I mean in particular the proems, the poetic manifesto at I.921-950 (and IV.1-25), at least the bulk of the *Magna Mater* passage (II.600-660), and the ethical diatribes which close books III and IV. Of the concluding account of the Athenian plague I shall have something to say at the end.

Recovering this process of composition requires a good deal of effort and patience. But Lucretius' creative achievement in structuring his poem as we know it can only be appreciated when we see what material he started with, how he set about the task of reshaping it, and what further plans may have remained unfulfilled at his death.

2. Lucretius' source

It used to be widely debated whether Lucretius' source text was Epicurus' 37-book magnum opus *On Nature*, his *Letter to Herodotus*, his *Great Epitome*, or some combination of these, or, alternatively, whether he relied on more recent Epicurean writings.¹

¹ For surveys of these views, see Schmidt (1990) 12-23, and, more selective, Erler (1994) 414-416. Schmidt in particular defends the view that more recent Epicurean writings play a large part — a thesis originating in particular from Lück (1932). Cf. also Runia in this volume (98). My own view is that Lucretius makes no use of Epicurean or other philosophical or scientific work postdating Epicurus, but I must reserve my defence of that for my forthcoming book on Lucretius (although see n. 33 below).

Lately these questions about sources have fallen into the background, no doubt to the relief of many. There are even those, like Diskin Clay, who maintain that Lucretius worked directly from no source at all.² This last option is, in my view, effectively ruled out by the comparison, on which this paper will be focused, between the structure of Lucretius' poem and that of *On Nature*. The data which I shall present seem to me only intelligible if Lucretius is taken to be working directly from a text of Epicurus, one which is either *On Nature* itself or a close derivative of it.

But which text? While it is quite understandable that Lucretian scholars should have got bored with *Quellenforschung*, it is surprising that no Lucretian scholar has set out to reopen the question of Lucretius' source materials in the light of our constantly improving range of evidence on Epicurus' *On Nature*. In the chart which follows, I give on the left the fullest reconstruction that I can manage of *On Nature* I-XV, based on the papyrus fragments and all the secondary evidence, including the *Letter to Herodotus*, which is avowedly an epitome of *On Nature*.³ Each item is marked with a lower-case roman numeral. To its right I show the sequence of contents in the *DRN*. Where Lucretius includes a topic not otherwise attested for *On Nature*, it appears with the prefix 'L' (L1, L2 etc.). There are ten such additions.⁴ Where Lucretius has a topic in a different position from Epicurus, I mark the transposition with an arrow.

Despite the disparities, it leaps to the eye that there is an extensive and non-accidental correspondence between the sequence of topics in *On Nature* and that in the *DRN*. Lucretius includes some topics not found in the *Letter to Herodotus*, and the *Letter* includes some topics not found in Lucretius, but that need reflect no more than two partly different policies used in excerpting material from *On Nature*.

Moreover — and this is of the utmost importance — one of the disparities of sequence can be shown to depend on a transposition which Lucretius himself made during the writing of the poem, after having initially followed the exact order found in *On Nature*. The proem to book IV preserves, side by side, two alternative programmatic passages. The later of the two (26-43) was written when the book was expected to follow what we now call book III, on the soul and its mortality. The earlier version (45-53), accidentally left in during the process of editing, preserves an earlier plan in which the book followed directly after book II.⁵ Thus originally

² Clay (1983b) 31. For Clay's arguments against *On Nature* as source, see *ib.* 18-19.

³ I have permitted myself a little help also from the *Letter to Pythocles* for the reconstruction of *Nat.* XI. The full reasoning behind the reconstruction will be found in Chapter 4 of my book (see n. 1). For an earlier version, see Sedley (1984), reproduced in Erler (1994) 95 (who also offers a helpful conspectus on the evidence for *On Nature*).

⁴ I have excluded non-expository passages, such as the proems and the poetic manifesto at I.921-950.

⁵ This was long ago shown by Mewaldt (1908), and has been widely accepted. Of later discussions critical of Mewaldt, see esp. Pizzani (1959) 157-167, and Gale (1993-1994) 4-5. But their strongest objection, that book IV assumes some knowledge of book III, is not decisive. It may simply show that Lucretius became aware during the course of writing book IV that he would eventually need to transpose it — see 9-10 below. In Sedley (1998) I argue that the first version contains a translation of technical terminology alien to Lucretius' eventual method, lending new confirmation to Mewaldt's conclusion that this represents an early draft of the poem. In defence of Mewaldt against the alternative proposal of Drexler (1935) that Lucretius' change of mind was the other way round — to move book IV to a position after book II — see Ferrari (1937).

Chart 1

<i>Nat.</i>		<i>DRN</i>	
I	(i) methodological preliminaries	-----	
	(ii) nothing comes into being out of nothing	I.149-214	
	(iii) nothing perishes into nothing	I.215-264	
	(iv) the all never changes	-----	
	(L1) <i>the existence of the invisible</i>	I.265-328	
	(L2) <i>the existence of void</i>	I.329-417	
	(v) the all consists of bodies and void	I.418-429	
	(vi) some bodies are compounds, others constituents	-----	
II	(vii) nothing exists independently except bodies and void	I.430-482	
	(viii) bodies' constituents (distinguished in (vi)) are atomic ...	I.483-634	
		<i>I.635-920</i>	←
	(ix) the all is infinite	I.951-1051	
	(L3) <i>critique of geocentric cosmology</i>	I.1052-1113	
	(x) unimaginably, not infinitely, many atomic shapes	(II.333-580)	←
	(xi) atoms are in perpetual motion	II.62-215	
	(L4) <i>the swerve of atoms</i>	II.216-293	
	(L5) <i>more on motion</i>	II.294-332	
		<i>II.333-580</i>	←
	(L6) <i>compounds</i>	II.581-729	
		<i>II.730-990</i>	←
	(xii) there are infinitely many worlds	II.1023-1174	
	(xiii) existence and mobility of images	(IV.26-238)	←
III-IV	(xiv) vision, truth and falsity	(IV.239-468)	
	(L7) <i>refutation of scepticism</i>	(IV.469-521)	
	(xv) the other senses	(IV.522-721)	
	(xvi) thought	(IV.722-822)	
	(L8) <i>critique of biological teleology</i>	(IV.823-857)	
	(L9) <i>nutrition, motion, sleep, dreams, sex</i>	(IV.858-1287)	
V	(xvii) atoms lack secondary qualities	(II.730-990)	←
	(xviii) atomic dimensions	-----	
	(xix) up and down	-----	
	(xx) equal speed of atoms	-----	
VI-	(xxi) nature of the soul	III.94-416	
VIII	(xxii) mortality of the soul	III.417-1094	
IX	(xxiii) soul is not incorporeal	-----	
		<i>IV.26-1287</i>	←
X	(xxiv) metaphysics of properties and time	-----	
XI	(L10) <i>mortality of our world</i>	V.55-415	
	(xxv) origin of our world	V.416-508	
	(xxvi) origin of heavenly bodies	-----	
	(xxvii) size of heavenly bodies	(V.564-613)	←
	(xxviii) motions of heavenly bodies	V.509-533	
	(xxix) attack on astronomical devices	-----	
	(xxx) stability of the earth	V.534-563	
		<i>V.564-613</i>	←
XII	(xxxix) further astronomical phenomena	V.614-770	
	(xxxix) other worlds	-----	
	(xxxix) origins of civilisation	V.771-1457	
XIII	(xxxix) the correct attitude to divinity	VI.50-91	
	[(xxxix) atmospheric and terrestrial phenomena]	VI.96-1286	
XIV	(xxxix) critique of monism	(I.635-711)	
	(xxxix) critique of finite pluralism	(I.712-829)	
XV	(xxxix) critique of Anaxagoras	(I.830-920)	←

Lucretius took items (xii) and (xiii) in their original sequence from *On Nature* II, so that *DRN* IV's topic — images, perception and other soul and body functions — followed directly after that of the multiplicity (and impermanence) of worlds at the end of book II. It was only after he had begun drafting that sequence that Lucretius decided to postpone perception and related topics until after what is now called book III, on the soul and its mortality. Given, then, that one of the arrowed transpositions is demonstrably Lucretius' own, there is a serious possibility that the others were also made by him during the process of writing.

In the case we have just examined, Lucretius' original sequence — (xii), (xiii) — was identical to that in *On Nature* II, and also, consequently, to that in *Letter to Herodotus* 45-46. In principle, then, he could be following either of these texts,⁶ or indeed some third, unknown text which took over the same sequence. The favourite candidate for this unknown text has long been the *Great Epitome* (Μεγάλη Ἐπιτομή),⁷ a work of which we know only because it is cited three times in the *scholia* on the *Letter to Herodotus*. Before proceeding further, it will be best for me to explain why I believe that *On Nature* is itself the unmediated source.

The hypothesis that the *Letter to Herodotus* may have been Lucretius' primary source offers few attractions. It is certainly not enough to pick out the occasional phrase from it which Lucretius can be said to have directly translated, since there need be little doubt that any such phrase occurred in *On Nature* too.⁸ The hypothesis must of course assume that Lucretius supplemented the Letter with a great deal of other Epicurean material. But it is not easy for its proponents to explain why Lucretius should have so closely matched the sequence of *On Nature* even at points where the Letter offered no guidance. For example, a look at the chart will show that he largely preserves the order of topics in *On Nature* XI-XII, despite the fact that neither the *Letter to Herodotus* nor, for that matter, the *Letter to Pythocles* could have offered sufficient reason to do so. Neither letter includes item (xxx), yet Lucretius has preserved its original place in the sequence, as the final columns of *On Nature* XI confirm.

Stronger evidence against the *Letter to Herodotus* as source is forthcoming from the end of *On Nature* II. Epicurus' sequence there is:

existence of images,
their fineness,⁹

⁶ Those who have supported *On Nature* as primary source include Mewaldt (1908), von der Muehl (1922) III-IV, Boyancé (1963) 53-56, and Arrighetti (1973²). The case for the *Letter to Herodotus* as primary source, whose groundwork was laid by Woltjer (1877) and Brieger (1882), has most recently been urged by Fowler (1996).

⁷ That the *Great Epitome* is Lucretius' main source was the proposal of Giussani (1896-1898), I 1-11.

⁸ E.g. Bailey (1947) I 25: 'as will be seen from time to time in the commentary, his relation to it [sc. the *Letter to Herodotus*] is so close that it is almost impossible to resist the conclusion that he was translating it' (although Bailey does not make it Lucretius' primary source). For an effective reply to this inference, see Boyancé (1963) 55 n. 1.

⁹ The images' lightness and fineness are invoked at fr. 24,36-37 Arr., where Epicurus is evidently relying on an earlier proof. This presumably came during or (more likely) directly after his proof of their existence. It is unsurprising that it is not listed in the book's closing summary along with the proofs of the images' existence and their speed of generation and travel: fineness has been established not as an end in itself but as a premise for the proofs of rapid generation and travel.

their speed of generation,
their velocity.

This is identical to the sequence which we find in Lucretius IV.54-216.¹⁰ But the *Letter to Herodotus* (46-48), in condensing this material, has produced a slightly changed order

the existence of images,
their velocity — including their fineness merely as a premise,
their speed of generation.

Here then there can surely be no possible doubt that Lucretius' debt to *On Nature* has not been mediated by use of the *Letter to Herodotus*.

Since the *Letter to Herodotus* seems to be ruled out as Lucretius' main source, we are left with a choice between *On Nature* itself and the *Great Epitome*. If the mysterious *Great Epitome* is assumed to have been sufficiently great, in principle almost anything found in *On Nature* could have recurred in it. But it seems an awfully implausible candidate for Lucretius' source text. This title does not feature among those which Diogenes Laertius catalogues as Epicurus' leading works (X.27-28), or as the main texts on physics (*ib.* 30, where he does cite not only *On Nature* but also the physics summaries in the 'letters', i.e. those to Herodotus and Pythocles). Nor is it cited by any ancient source apart from the scholiast on the *Letter to Herodotus*.

By contrast, *On Nature* (a) was the most prominent of all Epicurus' works, (b) is by far his most widely cited work on physics, and (c) can be seen from the multiple copies in the Herculaneum library to have been collected and valued by Epicureans in Lucretius' own day. In view of all this, the common impression that it was virtually unreadable, generated by the woeful state of the papyri, cannot be correct. Even allowing — as I prefer to insist — that Lucretius is unlikely to have been a member or active associate of Philodemus' school, we at least have incontrovertible evidence from his library that copies of *On Nature* were obtainable in Italy. Lucretius had to get his own texts of Epicurus from somewhere, and the papyri of *On Nature* which survived at Herculaneum may well include some of the exemplars from which his own copy was made. There was surely no better archetype of Epicurus available in Italy than Philodemus' ancient copies of *On Nature*, undoubtedly imported from the Garden in Athens.¹¹

Of course Lucretius is selective. He has omitted many topics and arguments altogether, and has cut down considerably on the large amount of polemical content that shows through in the fragments of *On Nature*. His doing so is fully accounted for by (a) the need to fit the main argument of fifteen books of *On Nature* into six books of Latin hexameters, and (b) the lower levels of philosophical expertise, and perhaps

¹⁰ Cf. Barigazzi (1958) 254. The denial of this fact by Lackenbacher (1910) 232 is based on a simple mistake. He thinks that Lucretius' first argument for (c) is founded on the images' 'lightness', while Epicurus' first argument for (c) is founded on their 'fineness' (λεπτότης). But these are both the same property! Lucretius' first argument refers (IV.183-184) to *levis res atque minutis corporibus factas*, and that this latter expression is equivalent to 'fineness' for him is made plain at 110-115.

¹¹ See Dorandi in this volume (46).

even tolerance, to be expected of his Roman readers. Nevertheless, even in what remains the imprint of *On Nature* shows through clearly, I believe, not only in the philosophical content of Lucretius' poem but also in its style.¹²

I conclude that to posit *On Nature* itself, rather than some derivative of it, as Lucretius' source is not only the most economical hypothesis, but also the one which can best explain our data. I do not, of course, deny that for his Epicurean ethics — which he knew and understood extremely well — he had read more widely. Nor is it capable of demonstration that he never supplemented *On Nature* with other works of Epicurean physics. But I know no feature of his poem which is better explained by that hypothesis, and I shall argue below (section 7) that at least one feature of it, namely Lucretius' actual method of composition, is better explained by the supposition that he relied exclusively on the full-length treatise.

3. The structure of *De rerum natura*

As we have already noted, it was only during the process of writing that Lucretius adopted the transposition which put books III and IV into their present order. This decision to depart from Epicurus' order was a crucial factor in producing what now stands out as the carefully balanced six-book structure:

Chart 2

(A) ATOMS	{	I	(a) Proem: praise of Venus as life force, and of Epicurus for discovering the nature of the infinite universe (b) The basic elements (c) The infinity of the universe
		II	(a) Proem: the Epicurean good life (b) Microscopic and macroscopic properties (c) The multiplicity of worlds
(B) MAN	{	III	(a) Proem: praise of Epicurus for freeing us from fear of god and death (b) The soul and its mortality (c) Diatribe against the fear of death
		IV	(a) Proem: Lucretius' poetic mission (b) Perception and other soul/body functions (c) Diatribe against sexual passion
(C) WORLD	{	V	(a) Proem: Epicurus as the greatest god (b) The world and its mortality (including astronomy) (c) The origin of life, civilization and religion
		VI	(a) Proem: praise of Athens for its greatest gift to civilization, Epicurus (b) Cosmic phenomena (c) The Athenian plague

¹² I argue this in my forthcoming book, see n. 1 above.

The structural features of this arrangement are very well recognised, and do not need elaborate rehearsal here. Notable aspects include the sequence of three pairs of books, expanding from (A) the microscopic level, through (B) the human level, to (C) the cosmic level. Within each pair, the first book sets out the nature and lifespan of the items in question — (I) atoms, (III) human soul, (V) world — and the second goes on to account for a range of phenomena related to that same item. The poem also falls into two pairs of three books, each ending on the theme of death (IIIc, VIc), to counterbalance the opening celebration of birth and life in Ia. All this, and much more, hung on Lucretius' decision during the course of writing to move book IV to its present position.

The remaining transpositions cannot so decisively be shown to be Lucretius' own, rather than already imposed by the author of some hypothetical intermediary source on which Lucretius might be imagined to rely. But now that we have acknowledged the principle that he did transpose material during the process of composition, it becomes more plausible (as well as economical) to suppose that these are his too.

4. Books I-III

A good example is the shifting of (xxxvi)-(xxxviii), the refutation of rival theories of matter, from its late position in books XIV-XV of *On Nature* to the place it now holds in book I of Lucretius (635-920). The apparent match in the structure of the two passages (monism, finite pluralism, Anaxagorean *homoiomereia*) is encouraging evidence that *On Nature* XIV-XV was Lucretius' source. This whole structure, including the *homoiomereia* interpretation of Anaxagoras, originally reflected Epicurus' use of Theophrastean doxography. That the Lucretius passage is shaped by the same doxographical approach is well recognised.¹³ For example, at I.647 ff. Lucretius hypothetically attributes to Heraclitus a theory of rarefaction and condensation of fire which appears to have entered the tradition only with Theophrastus.¹⁴

Epicurus had held over his critique of rival theories of the elements until he had completed his own physical and cosmological exposition in books I-XIII of *On Nature*. The decision to bring the critique forward to occupy a much earlier place, immediately after the initial demonstration of atomism in the first part of book I, is almost certainly Lucretius' own. From a methodological point of view the critique now comes surprisingly early. For present purposes I shall concentrate on just one of the main advantages achieved by the transposition.¹⁵

The transfer of the critique to this early position helps Lucretius to engineer a major structural feature of the first pair of books (see Chart 2 above). It enables him to postpone until the end of book I the theme (Ic) of the universe's infinity and the absurdity of the alternative, inward-looking cosmology which constructs our world around an absolute centre. This horizon-expanding motif is then mirrored at the end of the second book (IIc), where Lucretius argues for the existence of other worlds

¹³ Rösler (1973); Mansfeld (1990a) 3153-3154.

¹⁴ Theophrastus *Phys. op. fr.* 1 Diels = fr. 225 FHS&G, p. 406.15-19.

¹⁵ I discuss others in Sedley (1997a), and in Chapter 7 of my forthcoming book (n. 1 above).

and (an aspect of the argument not brought out at (xii) in the *Letter to Herodotus* condensation) the transient nature of our own. The emphasis achieved by this pair of matching closures delivers what he has effectively promised since the proem (I.62-79): a liberating intellectual journey with Epicurus in which we will push on through the constricting barriers of our own world and into the infinite universe beyond.

There are other signs of Lucretius' intervention in the sequence of topics in book II. One relates to items (xii), the multiplicity of worlds, and (xvii), that atoms lack secondary qualities. These became consecutive topics as soon as the intervening material on perception etc. had been transferred to book IV (see the bold central arrow in Chart 1).¹⁶ Lucretius then decided to reverse their order. This was his way of postponing the topic of the plurality and transience of worlds until the end of book II, producing what we have just seen to be a closure appropriately matching that of book I.

Another case is the atomic 'swerve'. This theory is not yet present in the *Letter to Herodotus* account of the causes of atomic motion (43-44), and therefore was very probably introduced only in a later book of *On Nature*. I assume that this was either book XXV, where the issue of determinism was visibly in focus, or a book flanking it. The swerve thesis has been moved forward by Lucretius to an early position in book II (L4 = II.216-293), where it quite properly takes its place as a third cause of atomic motion alongside impacts and weight. Furthermore, this has in turn required Lucretius to anticipate at the same early point item (xx), the topic of the equal speed of atoms, which serves as a premise in the argument for the swerve (II.225-239).¹⁷

I do not in this context want to discuss the theoretical merits or demerits of these transpositions, from the point of view of Epicurean physical methodology. What they illustrate for my present purposes is how books I-II are the product of delicate restructuring by Lucretius of Epicurus' original material. I see no sign anywhere in books I-III that the restructuring was not fully carried out (although in the case of book III there is no clear evidence that Lucretius actually had to make any structural change,¹⁸ apart from his omission of (xxiii) on the metaphysical issue of incorporeality). So far as I can tell, apart from corruptions acquired during later transmission, the first three books may well be exactly as Lucretius would have intended them to be.¹⁹

¹⁶ The original proem to IV (45-53), which represents a very early stage in the composition of the poem and precedes Lucretius' decision to move the book's material to its present position (see n. 5 above), does not make it explicit that item (xvii) was yet located in book II. But I assume that at any rate once the transposition had been decided on — quite early on in the composition of the book, see 9 below — it became clear to Lucretius that any further material on atoms in (xvii)-(xx) must either be incorporated into book II or simply omitted. In fact he chose to omit most of it.

¹⁷ This is not arrowed as a transposition in my chart, because the topic is not covered in its own right at II.225-239. He only refers there to the equal speed of atoms moving vertically downwards in inter-cosmic space. The main topic of (xx), that of the equal speed of atoms at all times, even within compounds, is simply omitted by Lucretius.

¹⁸ If Lucretius' argument in III largely acquires its structure from doxography, as argued by Mansfeld (1990a) 3143-3152, this doxographical influence is likely once again to have come through Epicurus from Theophrastus' *Physical Opinions*. That would suggest that Lucretius has in the main retained Epicurus' own sequence.

¹⁹ If there are any residual signs of lack of a final revision in these books, they concern no more than local fine tuning (e.g. perhaps III.620-621, 806-818: see Kenney (1971) *ad loc.*), not the overall arrangement of material.

When we turn to the last three books, the picture is very different. The state of book IV is the prime item of evidence. I have already mentioned the transitional state of its proem, where the original programmatic lines have accidentally remained in the text. The later version of these lines differs from the earlier one in some very revealing ways. Here, however, I want to concentrate on just one aspect: his preview of the book's contents. Unlike the original version, the revised version tells us emphatically that the book's main purpose is to dispel the fear of ghosts (IV.26-41, transl.):

And now that I have taught you what is the nature of the mind, from what things it gets its power when combined with the body, and how when torn apart it returns to its elements, I shall now begin to deal with what is closely relevant to this: how there are what we call images of things, which, like membranes snatched from the outermost part of things' bodies, fly hither and thither through the air; and how these same things strike us both awake and asleep and terrify our minds, when, as often, we see strange shapes, and images of those who have passed on — which have often woken us in terror as we lay slumbering; lest we should think, perhaps, that souls are escaping from Acheron, or that shades flit around among the living, or that something of us can survive after death, when both the body and the nature of the mind have been destroyed and dissolved, each into its own elements.

The main function of book IV within the middle pair of books is thus laid bare. Book III has shown that the soul is mortal and death not to be feared. Book IV's account of psychic functions will complement this by showing that encounters with 'ghosts' are not evidence that something of us does after all survive death. That this was to be the central message of book IV is confirmed by the proems to books I and V (I.132-135; V.59-63), both of which emphasise precisely the same role for book IV. Yet what we actually find on the topic of ghosts in book IV is a mere 11 lines (757-767). None of the important questions is addressed. Are the images of the dead which invade our dreams the ones which emanated from those same people before they died, even centuries ago? Or are they images which our minds pick out merely because they bear some resemblance to those people? And how are waking visions of ghosts — referred to explicitly in the proem — to be explained? These are important questions for an Epicurean to be able to answer. As far as I know, the only explicit evidence — albeit from the virulently hostile Plutarch²⁰ — attributes to the Epicureans the belief that images can stay in circulation even long after the death of the people from whom they emanated. But this at the very least needed saying, explaining and justifying. Above all, he owes his readers a well-reasoned assurance (which was certainly forthcoming from other Epicureans, and almost certainly from Epicurus himself)²¹ that such images could not actually be alive. Extraordinarily, Lucretius devotes more lines in his proems to announcing that book IV will explain ghosts than he devotes in book IV to actually explaining them. It seems self-evident that book IV is not in the final state which Lucretius envisaged for it at the time when he wrote its revised programme of contents.

There is good reason to suspect that before he had advanced very far with the writing of book IV Lucretius came to realise that he would eventually be moving it to come after the account of soul. As early as IV.121 there is an explicit reference to

²⁰ Plut. *De def. or.* 420b-c = fr. 394 Us.

²¹ Diogenes of Oenoanda 10.V.2-6 Smith. Since the point is argued there as a disagreement with Democritus, it probably stems ultimately from Epicurus himself.

anima and *animus*, presupposing readers' familiarity with the technical distinction between these developed in book III.²² But it seems equally clear to me that he had not, at this stage, worked out the pivotal role that ghosts would eventually have to play in the book: that intention is acknowledged only in the proems, which can therefore be assumed to represent a very late stage in Lucretius' planning.

As for the actual contents of book IV as we have it, there is good reason to guess that they still closely reflect Epicurus' original sequence of material, without the benefits of Lucretius' planned reworking. The list, as we met it in Chart 1 (above), is:

(xiii) existence and mobility of images	IV.26-238
(xiv) vision, truth and falsity	IV.239-468
(L7) <i>refutation of scepticism</i>	IV.469-521
(xv) the other senses	IV.522-721
(xvi) thought	IV.722-822
(L8) <i>critique of teleology</i>	IV.823-857
(L9) <i>nutrition, motion, sleep, dreams, sex</i>	IV.858-1287

Although the position of book IV, following book III on the soul, and likewise its primary content, encourage the impression that it is concentrating on mental phenomena, the addition of (L8) and (L9) appears to introduce an amorphous mixture of soul and body functions. Neither the critique of biological teleology, nor the ensuing account of nutrition, has anything directly to do with the Epicurean soul. Puzzlingly, as F. Solmsen noticed,²³ what links the items listed is, if anything, that they are all functions of the *Aristotelian* soul. Even here, however, the critique of teleology fits such an account loosely at best. Attempts have been made to find an equally good rationale for their grouping based on principles purely internal to Epicureanism, but with only limited success.²⁴ I hope that the following conjecture is an improvement.²⁵

The cardinal rule in the second half of the poem is this: if you want to make sense of a puzzling sequence of topics adopted by Lucretius, since he demonstrably has not completed his own reorganisation of the material, ask why *Epicurus* should have ordered it in this way. To answer this question with regard to book IV, we must consider the above list in its full context on Chart 1. It is actually quite easy to see why, having explained perception and thought in *On Nature* III-IV, Epicurus should have immediately continued with the remaining vital functions in (L9). Significantly, the very next topic was to be

(xvii) Atoms lack secondary qualities,

²² Much later, at IV.877-906, the distinction is even more clearly presupposed and exploited.

²³ Solmsen (1961).

²⁴ Cf. Furley (1967) 213 for criticisms of Giussani's and Bailey's explanations, although Furley's own proposal — 'the whole passage from 722 to 961 might be entitled: "no need for any explanation other than *simulacra*."' — does not fit IV.858-876 or 907-961 very comfortably (cf. Schrijvers (1976) 232).

²⁵ One simple explanation for this unexpectedly Aristotelian thematic link would be the hypothesis that Epicurus was himself working from Theophrastus' *Physical Opinions*, which as an Aristotelian doxographical work naturally grouped its topics on Aristotelian principles. I have made this suggestion in Sedley (1997b). It is compatible with the proposal which I offer here, but is not required by it.

and this, in Lucretius' version (much fuller than *Letter to Herodotus* 54-55), includes some proofs that atoms lack *vital* properties (II.865-990). Clearly the full discussion in *On Nature* sets out to show systematically that atoms lack not only all secondary sensible properties (colour, taste etc.) but also all vital properties. Hence Epicurus felt the necessity to analyse the full range of both sensible and vital properties before turning to (xvii), showing in particular how vital properties always depend on complex structures and processes which single atoms cannot possess. As for (L8), the critique of biological teleology, while its tenuous relevance to psychological properties and functions makes it look curiously out of place in Lucretius IV, it would have been entirely at home in its original Epicurean context. Any full explanation of vital functions was, for Epicurus, bound to include a vehement rejection of Plato's elaborate account of these in the *Timaeus*, where the organs in which they are located had been described as the products of providential divine creation.

Epicurus' plan, it seems, was not to turn to the analysis of soul itself — item (xxi) on his agenda — until the nature of atoms had been fully sorted out, in order that it should be incontrovertible that the vital properties of soul depend on its complex structures and processes, not on its components. We must recall here that in the great majority of the Presocratic theories to which Epicurus was reacting vital properties were already irreducibly present in the basic stuff or stuffs of the world. The concern to combat this supposition, in favour of his atomistic bottom-up model, was clearly an overriding factor in Epicurus' organisation of his physical exposition.

Lucretius' eventual decision, in the interests of his poem's overall architectonic, was to analyse soul in book III *before* turning to the individual vital properties in IV. It is this reversal of Epicurus' expository order that accounts for the otherwise puzzling heterogeneity of the issues covered in the later part of book IV. We may recall that, on the clear evidence of the proems, Lucretius had plans for re-focusing the content of book IV. We need not doubt that these would have included an enhancement or clarification of its thematic unity.

6. Book V

Given what we have learnt about Lucretius' intentions in book IV, it is worth asking whether the proems reveal any other unfulfilled plans on his part. Remarkably, it will turn out that they do. But let me approach the point indirectly.

The sequence of topics in book V is curious. Lines 509-770, on astronomy, constitute a surprising interruption between two phases of the history of the world, coming as they do after the development of the cosmos itself but before the emergence of life and civilisation. Once again there is good reason to attribute the sequence not to any concern of Lucretius' own, but to one which may well have motivated Epicurus, namely the need to respond to the account of creation in the teleologists' bible, Plato's *Timaeus*.²⁶ However, the fact the Lucretius' order of exposition in book V

²⁶ I argue for this in Sedley (1997b).

derives from Epicurus should in any case be plain simply from a glance at items (xxv)-(xxxiii) on the chart. In the entire sequence there is just one demonstrable transposition.²⁷

If then, as seems overwhelmingly likely, the astronomy in Lucretius V owes its present position to Epicurus' polemical concerns, one might have expected Lucretius eventually to transpose it. Outside that polemical context it belonged much more naturally with the discussion of other cosmic phenomena which I have conjecturally assigned to *On Nature* XIII, and which are picked up by Lucretius book VI.²⁸ Did Lucretius intend to reorder his topics in this way? When we turn to the proems, we find that indeed he did. The programmatic proem to book V (64-90), places the astronomy at the end, *after* the history of civilisation: he announces that he is going to expound (a) the world's mortality and its origin; (b) then (*tum*, 69) the origins of life and civilisation (exemplified here, as in the *Letter to Herodotus*, by language, but also by the origin of religious terror); and (c) in addition (*praeterea*, 76) the celestial motions. I see no possible reason to doubt that this programme was, as elsewhere in his proems, meant to correspond to the actual order of exposition.²⁹

The transposition of the astronomical passage to the end of book V, had he lived to effect it, would admittedly have sacrificed one advantage, namely the thematic link between the history of civilisation at the end of V and the proem to VI, where Epicurus is ranked prominently among the gifts of Athenian civilisation. But, compensatingly, the transposition would have eliminated the unwelcome interruption in book V's history of the world, and led to a smooth continuity between the end of V, on astronomy, and the primary content of VI, the remaining cosmic phenomena. In fact, the proem to VI also appears to allude to that same planned continuity between the two books (VI.43-46, transl.):

And since I have taught that the world's regions are mortal, and that the heaven is made of a body which had birth, and I have accounted for the majority of the things which go on and must go on in it, now hear the remainder of them...

It is also worth noting that the programmatic lines in the proem to book V promise (76-90) a heavily theological message for the astronomical section, namely that failure

²⁷ Assuming that it was Lucretius himself who moved (xxvii), the smallness of the heavenly bodies, to a less prominent position, his motive can only be a matter of conjecture. Epicurus had wished to stress its damaging implications for the accuracy of astronomical observations (cf. Sedley (1976)), and Lucretius (cf. his omission of (xxix), the attack on astronomical devices) was not interested in pursuing that kind of critique. My guess therefore is that Lucretius initially omitted it, like many other topics, but that when he got to the beginning of book XII he found an argument that he really wanted to include — resulting in V.590-613, his finely crafted passage on how the sun, though small, can illuminate the entire world — but which required that he should first belatedly insert the argument to prove that the sun *is* small.

²⁸ Epicurus' selection of topics for the *Letter to Pythocles* is itself an acknowledgement of this fact.

²⁹ Townend (1979) offers a similar argument for a different account of Lucretius' original plan, arguing that I.127-135 reflects a stage at which he intended the sequence V, VI, III, IV. I disagree. These lines are not in any normal sense programmatic. Lucretius' reasoning is: there are dangers attached *both* to false views about the gods (80-101), *and* to false beliefs about the soul (102-126); therefore it is necessary to learn *both* (*cum*, 127) about the real explanation of celestial phenomena (127-130), *and* (*tum*) about the real nature of the soul (130-135). The sequence is dictated, not by the subsequent contents of the poem, but by the order of the two warnings in 102-126.

to understand the true working of the heavens leads to a morally ruinous misconception of the divine nature. This is a message which the actual astronomical passage as we have it (V.509-770) fails to deliver. Just as the middle pair of books was to have the joint function of dispelling the fear of death, so the final pair was destined to have (even more prominently than in our version) the function of dispelling the fear of god. I imagine that in the planned rewriting there was to be a strongly theological motif in the astronomical close of book V — perhaps even including the famously missing account of the gods promised at V.155 (*quae tibi posterius largo sermone probabo*).

7. Lucretius' method

I have offered reasons for supposing book IV to be still very much in the organisational state in which Epicurus himself had bequeathed the material. As for book V, no such surmise is needed, because a glance at the chart is enough to confirm that, with possibly only one exception (item (xxvii)), Lucretius has indeed conserved Epicurus' order. In sections 5-6 I have argued that for both books he was visibly planning a radical overhaul, but did not live to carry it out. We can speculate what the final product might have looked like, but there is little doubt that he would have decided on further changes as he proceeded with the rewriting. The most that it is safe to say is that the rewriting might well in the end have been as subtle and complex as the reorganisation that can actually be discerned in books I and II (see section 4 above).

Before proceeding to consider book VI, it is worth putting together some interim conclusions on Lucretius' method of composition and its motivation. According to the reconstruction which I have proposed, he initially downloaded (if I may be forgiven the computing metaphor) large quantities of material into Latin hexameters, following his sole Epicurean source closely, indeed almost mechanically. It was largely in a second phase that he set about reorganising it into the familiar structure by which we know it today, although even then he did not live to fulfil all of his plans for books IV-VI. Two points may now be added about the earlier draft. It was already in verse; and it was already divided into books. The original programme of book IV, which we examined earlier, unambiguously testifies to both facts.

This in turn virtually rules out the possibility of a further stage sometimes posited by scholars, that of an initial draft in Latin prose. If Lucretius had started with a prose draft, we might surely expect him to have proceeded to plan the reorganisation of his material *before* he turned it into verse. In fact, though, the opening of book IV is evidence of major reorganisation taking place at a time when (a) the material was already in Latin hexameters and divided into books, yet (b) it was still in an early enough draft to retain the order of material bequeathed by Epicurus. The hypothesis of a prose draft prior to this stage looks explanatorily redundant.

Even without a prose draft, Lucretius was adopting a circuitous route to his final goal, since much of his first verse-draft undoubtedly required radical rewriting in the final version. Why should he have gone about the task in this apparently time-wasting way? One part of the answer surely lies in the size and character of the *On*

Nature. We know from the stichometric marks in the papyri that book XIV was 3,800 lines long, and book XV probably 3,200.³⁰ Scribal ‘lines’ were a formal measure, each equivalent to one hexameter line. That permits the conjecture that a typical book of *On Nature* was around 20,000 words long, which makes each book a little longer than an average book of Thucydides. In an Oxford Classical Text, the entire *On Nature* would have filled nine or ten volumes, and books I-XV alone some four volumes. That was a very considerable quantity of material for Lucretius to work through when making his selection of arguments. It would have been extremely hard for him to move back and forth between widely separated passages in different rolls of Epicurus’ work, while trying at the same time to keep control over the internal structure of the emerging poem. Without the aid of tables of contents, indexes, chapter and page references, etc., this would have been a daunting task, and perhaps ultimately an unmanageable one.

Once the hypothesis of a prose draft is excluded, then, Lucretius’ initial decision to versify the *aurea dicta* largely if not entirely in their own transmitted sequence turns out to have been, from a practical point of view, the natural one to take. Nor was it a foolish decision. Epicurus had himself been scrupulous about maintaining what he considered a philosophically correct sequence for his own argument in *On Nature*, and indeed the magnum opus had advertised itself as being delivered in a philosophically proper sequence.³¹ If Lucretius initially hoped to preserve most of that same order in his poem, he had Epicurus’ active encouragement to do so.

It was only during the actual process of versification, as the philosophical epic took shape, that Lucretius came to see the merits of a radical restructuring. If the reorganisation meant sacrificing some of Epicurus’ methodological rigour, any loss would be vastly outweighed by gains in architectonic unity and rhetorical power. The first half of the poem is eloquent testimony to the wisdom of his decision. So far as concerns the planned restructuring of the second half, however, only a few clues survive in the proems to afford us a glimpse of the new organic whole into which, at the time of Lucretius’ death, the *De rerum natura* was still undergoing its final transformation.

8. Book VI

So far I have deliberately left book VI almost entirely out of account. My hope is that what we have learnt about books I-V will be able to throw light on a long-standing puzzle about the final book.

After an opening disquisition on the proper attitude to divinity, the great bulk of book VI is devoted to a series of atmospheric and terrestrial phenomena. I have suggested tentatively in Chart 1 that the corresponding part of *On Nature*, book XIII, covered this same pair of topics ((xxxiv) and (xxxv)).³² Moreover, since we have

³⁰ See Leone (1984) 22-23 and Millot (1977) 26, who alerts us to the possibility of a lost extra digit at the beginning or end of the number for book XV.

³¹ This is explicit in the closing sentence of book XXVIII: see Sedley (1984).

³² The reasoning behind this educated guess will be found in Chapter 4 of my book (see n. 1 above).

learnt that at the time of Lucretius' death books IV and V had not yet had the same overhaul that he had given to the first half of the poem, it is only to be expected that book VI in its present state should also follow Epicurus' original order of exposition closely.

Our only clue to the internal order in which Epicurus' section on these phenomena proceeded is the corresponding part of the *Letter to Pythocles* (98-116). This does not match Lucretius VI at all closely. But it is a part where the Letter seems to be combining two or more different sources, and we cannot be confident how far the internal structure of *On Nature* XIII can be recovered from it. In proposing a match between *On Nature* XIII and *DRN* VI, I start with an appeal to probability, based on what we have learnt about the composition of the two preceding books, where very strong reasons emerged for deriving Lucretius' order from the corresponding books of *On Nature*.

A closer look at Lucretius' sequence of topics in book VI proves, at the very least, consistent with this supposition. David Runia (in this volume, 97-98) shows how Lucretius' sequence in book VI reflects what became the standard one for the doxographers.³³ I would add that this same sequence must, at least in outline, go back to Theophrastus, as can be seen by comparing it with the version of his *Metarsiologica* which survives in Arabic and Syriac.³⁴ Although in this abridgement many topics are omitted, those which are preserved correspond almost exactly, once again, to the order found in Lucretius and Aetius. We have already found some reason to regard Theophrastus' *Physical Opinions* as one major influence on Epicurus' own exposition, and, through him, on Lucretius'. Here we seem to have another such case.³⁵

There is, on the other hand, one item in book VI which can hardly reflect *On Nature*. As is well known, the book's final part (1138-1286) is a long and gruelling description of the great plague at Athens during the Peloponnesian War, borrowed directly from Thucydides.³⁶

There is much unresolved dispute about this passage. While it is widely agreed that the horror story of mass death somehow serves to counterbalance the poem's opening focus on birth and life and the denunciation of the fear of death which provides the climax for the first half of the poem, it is not so widely accepted that the close as we have it can be as Lucretius meant it finally to be. In confirmation of this doubt, it is worth observing that the passage has what we have now seen to be the

³³ I do not myself share Runia's view that Lucretius is likely to be relying at least partly on doxography postdating Epicurus. His main evidence, the date of Berosus (101-102 of this volume), is inconclusive, since Berosus was active early enough for his astronomical views to have been known to Epicurus, and even to Theophrastus before him. There is no reason to guess that he did not publicise them until his very late work the *Babyloniaca*.

³⁴ The full text of this was published for the first time by Daiber (1992). That it is an abridgement of the *Metarsiologica* (a two-book work), and not as Daiber thought the whole of it, is argued convincingly by Mansfeld (1992b), who also offers powerful new evidence for the influence of this material, via Epicurus, on Lucretius.

³⁵ It is at least as likely that Epicurus relied on the meteorological section of *Phys. op.*, where we might expect much of the same material to recur, as on the actual work now identified as the *Metarsiologica*.

³⁶ Among the many excellent studies of the plague passage, I have found those of Commager (1957), Bright (1971) and Clay (1983b) especially helpful.

hallmark of a Lucretian first draft: that is, despite occasional omissions or additions, it retains the exact order of material found in its Greek source, Thucydides II.47-54.³⁷ This time there is no way of blaming his procedure on the sheer size of the source text, but we may still surmise that, even when working from a relatively short Greek passage, what had by now become his habitual method suggested itself once again, as the best way to ensure as full *coverage* of the Thucydidean material as he evidently wanted, prior to reworking it to fit the poem's still developing architectonic.

Those who believe, as I do, that Lucretius must have intended to rework the plague passage and to make its moral explicit,³⁸ can draw comfort from the general picture I have painted. If my story is right, Lucretius' plans for organising his individual books around an overarching moral framework had not, at the time of his death, been fully put into effect for the second half of the poem. If book VI does not yet have a fully finalised closure, in the light of the current state of books IV and V that is exactly what we should expect. We are therefore at liberty to ask how he might have meant to close book VI, without shackling ourselves to a doctrinaire insistence on the integrity of the existing text as a finished product.

Much the most promising guess to have emerged from discussions of this problem is that Lucretius meant here to show how the other achievements of civilisation are dwarfed by Epicurus' contribution to it. Athens, the proem to book VI points out, was the cradle of civilisation for 'ailing mortals' (*mortalibus aegris*, VI.1), giving them both corn and laws: Athens, that is, helped foster both our bodily and our moral needs. But, the proem continues, Athens also gave us Epicurus, whose godlike discoveries have outlived him to spread 'life's joyful solaces'. It was he who truly satisfied our physical and moral needs, by teaching us the limits of pleasure and by dispelling our fears.

The return to Athens at the end of the book must have been meant to take this message forward. Lucretius surely wanted us to learn that when the Athenians faced the worst that fortune could hurl against them,³⁹ the other benefits of their civilisation were powerless: only Epicurus' wisdom, had it yet come to birth, could have dealt with the horrors of the plague, both physical and moral. He is the one who has taught us to tolerate bereavement and bodily pain with genuine optimism, and not to cling desperately to life as if death were an evil. In other words, the plague must carry a message for *us*, and this is supported by the way in which he omits the circumstantial details of the Athenian plague in order, it seems, to maximise the generality of its lessons.⁴⁰

Now it seems idle to pretend that the intended message is in fact conveyed by the closing section of the poem. Some would interpret the plague passage as a final test:

³⁷ For demonstration of this, see Bright (1971) 608. The one apparent exception is VI.1247-1248, but I am persuaded by Bright's argument in defence of Bockemüller's transposition of 1247-1251 to a concluding position after 1286, which restores the correspondence.

³⁸ Although Bockemüller's transposition (see previous note) may, as urged by Fowler (1996) 889, give the final lines some appropriate closural features, such minor repairs do not in my view come near to supplying a morally credible closure to the poem as a whole.

³⁹ Cf. VI.29-32 for anticipation of this theme in the book's proem.

⁴⁰ This aspect is well brought out by Bright (1971). Cf. also Segal (1990) 231: 'Athens is remote enough from Lucretius' Roman audience to be exemplary, but real enough to be terrifying.'

have Lucretius' readers really learnt their Epicureanism? But even that interpretation must presuppose that we have at least been taught the relevant principles, so that we are now ready to apply them for ourselves.⁴¹ Yet I wonder how many readers of this passage have ever been left feeling that, thanks to the poem's lessons, if they had been there they would have been less helpless than the wretched Athenians were in the face of such grisly suffering. The expected Epicurean teachings about the right responses to painful death are not yet fully in place. We have learnt much from book III about why we should not fear *being* dead, and those lessons will certainly prove to bear on the conduct of the plague victims. But where have we been taught how to remain happy through severe and even terminal physical suffering?

On this matter Epicurus' teachings were well known, and his own death the great model. He had maintained that even excruciating pain need not mar our happiness, both because we can be confident that it will be short-lived,⁴² usually to be followed by the totally painless state of death, and because even while it is going on it can be outweighed by the joyful recollection of past pleasures. Cicero, for one, showed how well he understood the pivotal importance of these tenets in his eloquent expansion of the Epicurean *tetrapharmakos* (*De finibus* I.40-41):

That pleasure is the ultimate good can be most easily seen from the following picture. Let us imagine someone who enjoys great, numerous and continuous pleasures of both mind and body, unobstructed by any pain or by the prospect of it. What state could we call more excellent or choiceworthy than this one? For someone in such a condition must possess the strength of a mind which fears neither death nor pain, on the ground that death is painless, and that long-term pain is usually bearable, serious pain short-lived, so that intense pain is compensated by brevity, long-term pain by lightness. Once we have added to this the provision that he is not in awe of divine power, and that he does not allow past pleasures to evaporate but enjoys constantly recalling them, what further improvement could be possible?

These teachings on neither fearing, nor being made wretched by, even the most intense physical suffering are absolutely central to Epicurus' ethics, and their relevance to the plague victims is obvious. Yet nothing has yet been said about them in the poem. As it stands, Lucretius' exam sets us at least one large question to which he has nowhere hinted at the answer.

The *tetrapharmakos* or 'fourfold remedy', which summarised the cardinal first four tenets of the Epicurean *Kuriai Doxai*, ran as follows:⁴³

God presents no fears, death no worries. And while what is good is readily attainable, what is terrible is readily endurable.

Up to this point in the poem the first three have all been magnificently preached. The first tenet, that god is not to be feared, is a central theme of the entire poem, emphasised in the proems to books I and III, and consolidated at VI.48-79; indeed, I have argued (section 6 above) that Lucretius meant to give it even greater emphasis in the

⁴¹ See Clay (1983b) 225, 257-66, who cites I.402-403; V.1281-1282; VI.68-79, 527-534 in support of the do-it-yourself interpretation. In all these cases, it seems to me, we have been supplied with the necessary materials or explanatory model.

⁴² *KD* 4; *SV* 3-4.

⁴³ For the text, see Long & Sedley (1987) 25J.

final version of books V-VI. The second, that death is nothing to us, is of course the prime lesson of book III, and, as we have seen, was intended to be that of book IV as well. The third tenet, that good can be readily attained (by imposing a natural limit on our desires), is the theme of the proem to book II, and the proem to book VI glorifies it as the chief benefaction bequeathed to us by Epicurus, as if Lucretius, in embarking on the final lap, were consciously reminding us that this lesson too is in place. But the last of the four cardinal tenets, that pain is readily endured, is totally missing. The plague passage is the best possible evidence that Lucretius meant to add it.

The genetic account of the poem which I have defended in this chapter offers a satisfying explanation of the omission. Lucretius, we have seen, first downloaded the material he needed from his Greek sources, and only in a second phase reworked it to blend with the poem's emerging master-plan. 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.

What Lucretius still owed his readers was Epicurus' explanation of how tolerance of physical pain depends on our mental attitude to it. To confirm such an account of the poet's intentions, the most that we can hope for in his paraphrase of Thucydides is the occasional clue to his eventual aims. Fortunately, some excellent work has been done on Lucretius' use of Thucydides, and it does indeed confirm that he was heading in some such direction. A series of valuable analyses have brought out a number of points where Lucretius departs from the letter of Thucydides' text. His strategic omissions of Thucydidean material and inclusion of additional medical details serve, *inter alia*, to magnify the horror and hopelessness of the situation. Along with this comes a marked tendency to psychologise.⁴⁴

Sometimes the psychologising adjustments emphasise people's horror of death as such. For example, where Thucydides' plague victims sometimes survive thanks to the loss of diseased bodily parts (II.49.7), Lucretius' interpretation is that the fear of death actually drove them to sever their own limbs and organs (1208-1212):

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.

And some of them, through the burden of fear at the onset of death, stayed alive by cutting off their genitals with a knife; others stayed on without hands and feet, but alive; others lost their eyes. So far had the grim fear of death vanquished them.

Elsewhere Lucretius elaborates on the mental distress brought about by their current plight itself. For instance, where Thucydides (II.49.3) describes the physical symptoms as being μετὰ τάλαιπωρίας μεγάλης, 'with much (physical) distress', Lucretius not only takes this as describing their mental state (which in itself would be an understandable error), but expands it as follows (1158-1159):

⁴⁴ Especially Commager (1957), Bright (1971). It is possible to accept Commager's findings without endorsing his conclusion, that Lucretius is presenting the plague itself as moral illness.

intolerabilibusque malis erat anxius angor
adsidue comes et gemitu commixta querella

Their unbearable sufferings were at all times accompanied by a torment of troubledness,⁴⁵ and by groaning mixed with lamentation.

Symptoms, not in Thucydides, that the disease is in its terminal stages include (1183-1184):

perturbata animi mens in maerore metuque
triste supercilium, furiosus voltus et acer...

A mind distraught in its grief and fear, a gloomy brow, a frenzied and grim expression...

One further discrepancy is that where Thucydides describes the crowding of country-dwellers into the city, Lucretius (VI.1252-1255) instead gives the impression that the plague spread death into the countryside. I imagine that this deliberate shift prepares the ground for a warning about universality: such sufferings are not a hazard exclusive to civic life, but one which every human being must be prepared to confront and deal with. Epicurus, we should recall, had established his Epicurean community outside the city walls of Athens, thereby reminding us of his already memorable dictum that 'when it comes to death, we human beings all live in an unwallled city.'⁴⁶

These and similar clues as to how Lucretius was beginning to shape his source material lend strong support to the hypothesis that the eventual moral message was to be a quintessentially Epicurean one about facing terminal suffering with *the right frame of mind* — a frame of mind which will enable us to eliminate fear and to tolerate pain cheerfully if it should come our way. Whoever we are and wherever we live, if we have not learnt this lesson we cannot face the future with truly Epicurean equanimity.

Like Lucretius', so too Epicurus' last written words had been a description of terrible physical suffering - his own. Yet his happiness, he wrote, was unmarred:⁴⁷

I wrote this to you on that blessed day of my life which was also the last. Strangury and dysentery had set in, with all the extreme intensity of which they are capable. But the joy in my soul at the memory of our past discussions was enough to counterbalance all this.

This triumph of philosophical serenity over the most intense physical pain was surely what Lucretius was preparing to bring into focus at the close of his poem. The panic, terror and misery of the pre-Epicurean Athenians, in the face of bodily suffering hardly worse than Epicurus' own terminal illness, are a brilliantly graphic backdrop to this final lesson in the Epicurean ethical canon.⁴⁸

⁴⁵ That *anxius angor* does not specifically signify 'anxiety' is shown by III.993, where the same phrase describes the torment of one in love (cf. Commager (1957) 106). Hence there is no reason to read this passage as focusing especially on the fear of death.

⁴⁶ *SV* 31.

⁴⁷ D.L. X.22.

⁴⁸ My thanks to audiences at Durham, London and Cambridge, who offered many helpful comments on predecessors of this paper, as well as to those who offered equally valuable criticisms at the Amsterdam conference in June 1996. I am also grateful to Cambridge University Press for permission to print here material which will be appearing in my book (see n. 1 above).

